

2004-2005

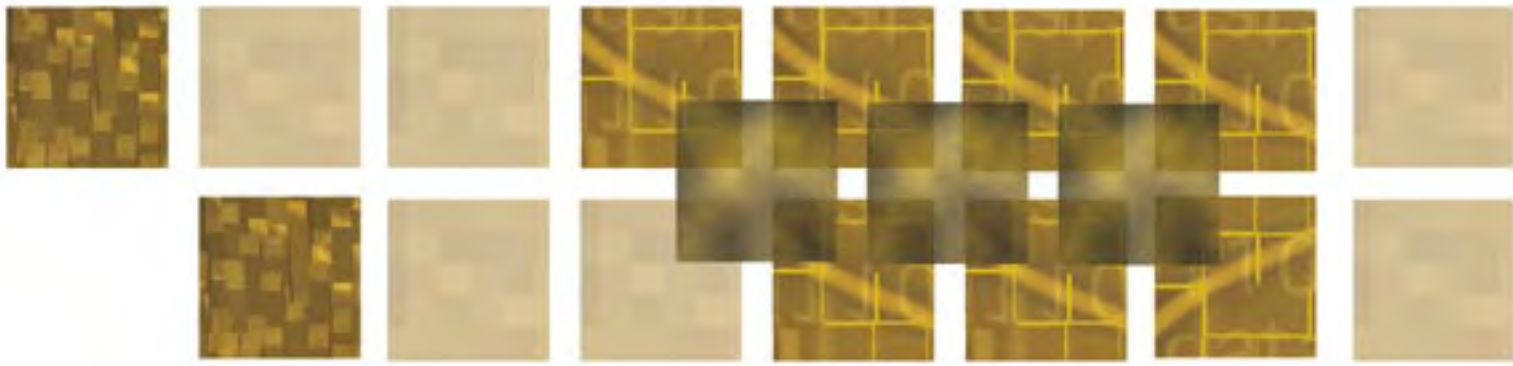


Discover

Schoolcraft
College



C A T A L O G



New Student Checklist

- Visit our campus. Call 734-462-4426 to schedule a guided campus tour.
- Apply for admission. Complete the application on the last page of this catalog and submit it to the Office of Admissions. You can also apply online at www.schoolcraft.edu.
- Download Discover Schoolcraft, a Windows-compatible application that allows you to quickly search updated information about Schoolcraft courses, programs, and services (www.schoolcraft.edu). This is an optional service if you have a computer available.
- Send your official high school transcript or GED scores, ACT scores and college transcripts to the Office of Admissions.
- Apply for financial aid online at www.fafsa.ed.gov. The Schoolcraft College code is 002315. Call 734-462-4433 for the Office of Financial Aid.
- Discover the variety of scholarships listed in the Scholarship Book in the Office of Financial Aid.
- Take an assessment test. Testing is on a walk-in basis. Call 734-462-4806 for the Assessment Center hours. You do not need to take an assessment test if you have submitted an ACT score that was earned within the last three years.
- Attend an orientation session and learn helpful tips for succeeding at Schoolcraft. Call 734-462-4429 to make a reservation.
- Meet with a counselor. Call 734-462-4429 to schedule an appointment.
- Register for your classes using online, telephone or walk-in registration options.
- Pay for your classes using online, telephone or walk-in payment methods at the Cashier's Office. Call 734-462-4449 for hours. Payment arrangements must be made the same day you register.
- Explore the Bradner Library, computer labs, the Learning Assistance Center, the Career Planning and Placement Center and other student services available to help you succeed.
- Meet new people. Get involved. The College offers a variety of clubs, organizations and events to expand your college experience. Call 734-462-4422 for Student Activities.
- Get a student identification card at Student Activities located in lower level Waterman. Make sure to bring picture identification and a copy of your current class schedule.
- Enjoy your classes and have fun!

TABLE OF CONTENTS

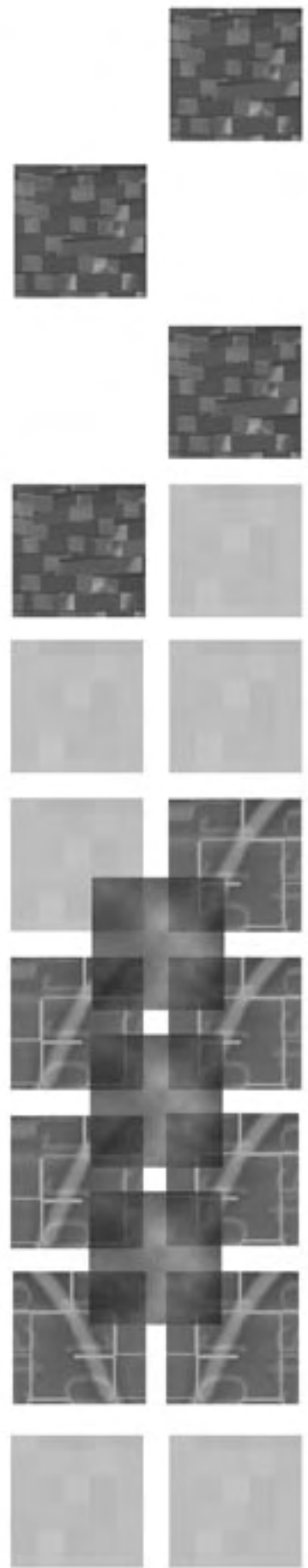
Welcome to Schoolcraft College	4
The College	6
Admissions and Financial Information.....	8
Academic Support Services.....	18
Campus Life Services and Activities	24
Student Rights and Responsibilities	27
Academic Policies and Procedures	30
• Instructional Alternatives	31
• Educational and Community Services	32
• Academic Policies.....	33
• Graduation Requirements	36
Academic Programs	41
Course Descriptions	82
Schoolcraft College Personnel	143
Advisory Committees.....	152
Campus Phone Directory	156
Index.....	157
Program List.....	160
Application for Admission.....	161
Area Map	Inside Back Page
Campus Map	Inside Back Page

ACCREDITATION

Schoolcraft College is accredited by The Higher Learning Commission of the North Central Association, 30 North LaSalle, Suite 2400, Chicago, IL 60602-2504; phone 800-621-7440; fax 312-263-0456 or access the Commissions' Website at www.ncahigherlearningcommission.org.

Schoolcraft has the following programs that have state and national approval and accreditation:

- The Children's Center is accredited by the National Association for the Education of Young Children (NAEYC). For more information call 800-424-2460.
- The Criminal Justice Police Academy Associate Degree program is certified by the Michigan Commission on Law Enforcement Standards (MCOLES). For more information call 517-322-1417.
- The Health Information Technology Associate Degree program is accredited by the Commission on the Accreditation of Allied Health Educational Programs (CAAHEP), in association with the American Health Information Management Association. For more information call 312-233-1100.
- The Medical Assisting Certificate program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) on recommendation of the Curriculum Review Board of the American Association of Medical Assistants' Endowment (AAMAE). For more information call 312-553-9355.
- The Nursing Associate Degree and Practical programs are approved by the Michigan Board of Nursing. For more information call 517-373-4674 or 517-335-0918.



It is the policy of Schoolcraft College that no person shall, on the basis of race, color, national origin, gender, age, marital status, creed or handicap, be excluded from participating in, be denied the benefits of, or be subjected to discrimination during any program or activity or in employment.

Any questions concerning the application of, or grievances for, Title IX of the Education Amendments of 1972 which prohibits discrimination on the basis of sex, and Title VI of the Civil Rights Act of 1964 which prohibits discrimination on the basis of race, creed, color, or national origin should be directed to:

Educational Programs & Activities

*John Tomey
Executive Vice President
Schoolcraft College
18600 Haggerty Road
Livonia, MI 48152
734-462-4431*

Employment

*Cindy Champnella
Executive Director of
Human Resources
Schoolcraft College
18600 Haggerty Road
Livonia, MI 48152
734-462-4408*

Any questions concerning the application of, or grievances related to, Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of handicap, or the Americans with Disabilities Act of 1990, which requires reasonable accommodation to be provided to disabled persons, should be directed to:

*Jill O'Sullivan
Vice President and
Chief Financial Officer
Schoolcraft College
18600 Haggerty Road
Livonia, MI 48152
734-462-4416
Hearing Impaired Phone
734-462-4437*

Individuals who feel their rights have been misused in relationship to the provisions of equal opportunity at Schoolcraft College can contact the appropriate persons listed above.

BOARD OF TRUSTEES



*Mary Breen
Chairperson*



*Gregory J. Stempien
Vice Chairperson*



*Brian D. Broderick
Secretary*



*Patricia Watson
Treasurer*



*Richard J. DeVries
Trustee*



*Kevin McNamara
Trustee*



*Carol M. Strom
Trustee*

The Board of Trustees is a group of seven members, elected by the voters of Schoolcraft Community College District to serve for six-year terms. The authority of the Board of Trustees is established by the state legislature through the Community College Act. The Board is the policy-making body for the College.

WELCOME TO SCHOOLCRAFT COLLEGE

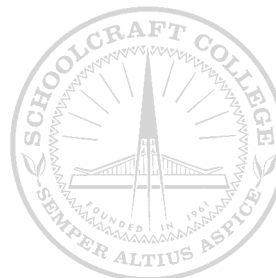
You have selected one of the finest colleges in the Midwest.

The College was established more than forty years ago by the people of five contiguous communities to create an opportunity for you to grow intellectually and to strengthen your economic independence. We share a common goal; we want you to succeed.

Schoolcraft continues to be an inviting environment. We believe that it would be difficult to find faculty and staff more willing to assist you, an array of services more comprehensive, or a more technologically equipped college anywhere. The totality of the experience creates your best opportunity for success.

This is the place to develop, refine, and utilize the tools of knowledge. This is a place to learn and enjoy the experience.

Conway A. Jeffress
President



FOUNDATION BOARD OF GOVERNORS

The Schoolcraft College Foundation is a non-profit corporation dedicated to raising funds to support Schoolcraft, students with financial needs, and College projects beyond general fund resources. The Schoolcraft College Foundation is led by the Board of Governors comprised of 21 civic, business, and community leaders drawn from the Schoolcraft Community College District.



Front row from left to right: Karl Zimmermann, Vice President; Charlie McIlhargey, President Elect; Tom Marek, President; Maureen Foley, Secretary; Margaret Slezak, Treasurer; John Walsh, Ex-officio Member

Back row from left to right: John Santeiu, Jr., Honorary Member; Michelle Plawecki, Member; George Grafe, Member; Robert Farris, Member; Suzanne Thomas-Hughes, Member; Elaine Koons, Member; Abe Munfakh, Member; James Jabara, Member; Dr. Conway Jeffress, Ex-officio Member

Not pictured: John C. Bowen, Member; Edwin Schulz, Member; John Allie, Member; Jane Thomas, Immediate Past President; Phillip Damaska, Member; Marc Israel, Member; Mary Breen, Ex-officio Member

SCHOOLCRAFT DEVELOPMENT AUTHORITY

The Schoolcraft Development Authority was established by Schoolcraft College to direct College land development activities. The Board of Directors is composed of nine members.

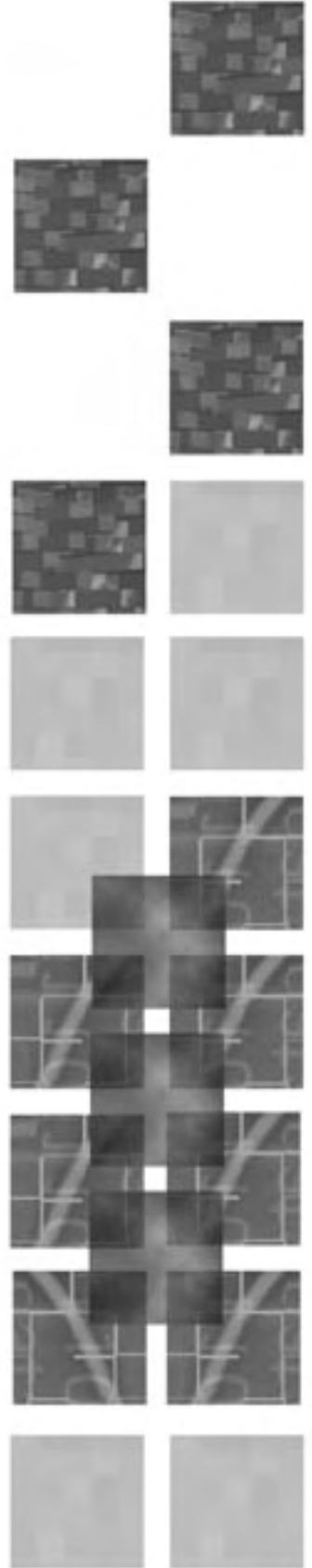
William Brunton	
Richard J. DeVries	SC Board of Trustees
James B. McKeon	
Robert R. Nix II	Vice President
Jill F. O'Sullivan	President
Lita Masini Popke	
Barbara Scharmen	Recording Secretary
Patricia Watson	SC Board of Trustees
John J. Walsh	Secretary/Treasurer
Conway A. Jeffress	Ex-Officio





Schoolcraft College

The College



The College

Mission

Schoolcraft is a comprehensive, open door, community-based college. The mission of the College is to provide a transformational learning experience designed to increase the capacity of individuals and groups to achieve intellectual, social and economic goals.

Overview

Schoolcraft carries out its mission by offering a variety of educational programs, providing a vibrant campus life for students and visitors and making the campus available as a community resource.

Educational Offerings

More than 30,000 people each year take part in a learning experience sponsored by Schoolcraft College. They do so at the main campus in Livonia, the Radcliff Center in Garden City and online. These educational offerings include traditional college courses that grant credit, non-credit continuing and professional education courses and training/consulting services for business and industry.

Traditional offerings include freshman- and sophomore-level courses in more than 60 academic disciplines, transfer agreements with dozens of four-year colleges and universities and career-oriented certificates and associate degrees.

Continuing education courses focus on the arts, business and computers, health and fitness, professional development and personal development.

Business services encompass training on campus, training at a company's location, small business/entrepreneurial training and resources and import/export and government contracting assistance.

Campus Life

The College offers numerous student activities and student clubs, as well as concerts, theatrical performances, special events and nationally ranked intercollegiate athletic programs.

Students also are engaged in service learning, honors studies and peer tutoring. They publish an award-winning newspaper, host art shows featuring student work and volunteer with local charitable organizations.



A new addition to the campus scene is the renovated Waterman Wing of the VisTaTech Center, which features student gathering spaces, laptop computer connections and a high-quality food court to serve commuting students throughout the daytime and evening hours.

Community Resource

Many of Schoolcraft's instructional and meeting spaces are available for use by local businesses, groups and organizations. Between outside groups using the campus as a meeting place and dozens of Schoolcraft-sponsored events, more than 100,000 people come to campus each year for some type of activity, making Schoolcraft a hub of community life.

The new VisTaTech Center embodies Schoolcraft College's dynamic, on-the-move spirit. Opened in July 2003, VisTaTech's classroom, training, meeting and events spaces are saturated with technology and wired to communicate with the next room and the other side of the world. Visitors to the building can enjoy cuisine prepared by culinary arts students in some of the nation's newest, most advanced teaching kitchens.

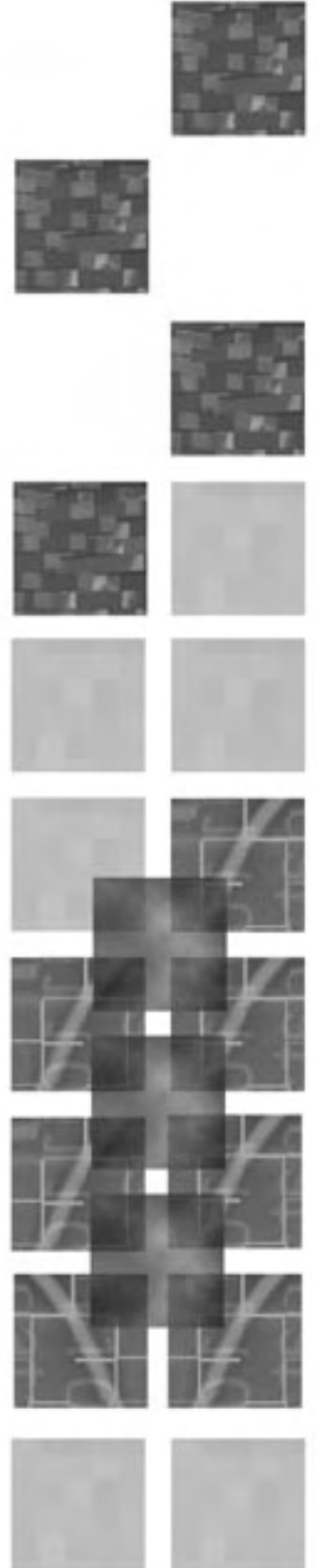
Core Purpose

Everything Schoolcraft College does, from educational offerings and campus life to its role as a community center, is geared toward fulfilling the institution's core purpose: To increase the economic and intellectual capacity of the individuals, corporations and communities it serves.



Schoolcraft College

Admissions and Financial Information



Admissions

Office of Admissions
McDowell Center Room 240
734-462-4426

Schoolcraft College provides a friendly and supportive environment where you can prepare for your future and meet a diverse group of people. Schoolcraft College's open door policy supports our primary purpose of making higher education available to individuals interested in, and capable of, extending their education beyond high school. There is no charge to apply for admission to the College.

General Admission Criteria

- High school graduates and applicants who present a high school equivalency are considered for admission.
- Non-high school graduates at least 18 years old may be admitted if their high school class has graduated. These students may be asked to take the General Education Development (GED) Test or meet other requirements based on individual needs.
- Non-high school graduates younger than 18 years old will be considered for admission based on assessment testing, recommendations from their high school principal and interviewing with the Dean of Student Services and/or the Director of Student Advisement Services.
- Students still attending high school or home-schooled students may take College classes at the same time if they present a recommendation from their high school counselor or principal. See High School Dual Enrollment and Special High School Enrollment sections for more information.

Admission to the College does not guarantee admission to all courses and programs of study. Special admission requirements must be met before a student is accepted into any limited enrollment program.

Admissions Process

Students seeking admission are requested to submit the following to the Office of Admissions:

- Completed Schoolcraft College Application for Admission (available in print or on the Web).
- Official high school transcript(s).
- Official college transcript(s), if applicable.

Transcripts are valuable assessment and course placement tools. Credit for courses taken at other colleges and prerequisite waivers can be determined by providing official high school and college transcripts.

All applicants will receive materials describing their admission status. Admitted students will receive information on assessment testing, orientation, academic counseling and registration requirements and procedures.

Assessment

The goal of Schoolcraft College is to place students in courses that will maximize their academic success. All students who plan to enroll in credit courses participate in assessment testing for English, math and reading to assess their appropriate course level. To satisfy the assessment testing requirement, applicants should submit ACT scores that are not more than three years old to the Office of Admissions. Students who have not taken the ACT may take alternative assessment tests given by the College.

Core Foundation Courses

Students who score below the collegiate level on English, math or reading assessment tests, or who require instruction in basic skills to meet prerequisites for their selected curriculum, are required to complete all basic courses within their first year of study. Core foundation courses also may be taken by students who wish to review and strengthen their skills. Descriptions of the following core foundation courses are listed in the catalog.

BIOLOGY 050	MATH 045
	MATH 047
ENGLISH 050	MATH 053
ENGLISH 052	MATH 055
ENGLISH 055	PHYSICS 051
CHEMISTRY 051	

COLLEGIATE SKILLS 050	COLLEGIATE SKILLS 053
COLLEGIATE SKILLS 055	

High School Enrollment Options

Schoolcraft College offers high school students opportunities to attend college while still in high school. Two options are High School Dual Enrollment and High School Special Enrollment.

High School Dual Enrollment

Public high school students who have completed at least the tenth grade may apply for dual enrollment at Schoolcraft College under the Postsecondary Enrollment Options Act of the State School Aid Act. Students must have completed the Michigan Education Assessment Program (MEAP) High School Test, earning an endorsement in the subject area, or must enroll in courses that do not require an endorsement. Dual enrollment applications are valid one semester at a time and only during fall, winter or spring semesters. Applications are available at the student's high school or from the College. To be processed, the application must have a list of approved courses and signatures of the student, parent and school principal. In addition, a College counseling appointment is required. Schoolcraft College will bill the school district for tuition and fees. Students are responsible for the portion of charges not covered by their school district. Additional requirements are specified on the Schoolcraft College high school dual enrollment application. Requirements are subject to change in accordance with state legislation.

Special High School Enrollment

Public or private high school students who have completed at least ninth grade, or home schooled students who have completed the equivalent of ninth grade, must work together with their counselor to identify a course they want to take for high school and/or college credit. These students may apply to Schoolcraft College as special high school applicants. Students are admitted for one semester at a time under special high school enrollment. Applications are available at the student's high school or from the College. To be processed, the application must have a list of approved courses and signatures of the student, parent and high school counselor. In addition, a College counseling appointment is required. Students are responsible for all tuition and fees.

Readmission of Former Students

Former students, in good academic standing, should make an appointment to see an academic counselor. During this appointment, students can revise their educational plans and discuss current course offerings. If it has been longer than two years since the student last attended the College, he or she is asked to complete a free Application for Admission and Readmission before registration.

Former students who were academically dismissed from the College must petition the Dean of Instruction for readmission. See the Academic Policies section of this catalog for details.

Guest Students at Schoolcraft College

Students attending another college may enroll at Schoolcraft as guest students. Guest students may register for a course(s) without taking assessment tests or meeting with a counselor, unless they so choose. Students attending another Michigan college or university must submit a completed Michigan Uniform Guest Application. Out-of-state guest students must submit an Application for Admission and indicate their desire to be a guest student. The application is valid only in the semester for which it is authorized. Guest students pay all tuition and fees, as applicable, and are not eligible for financial aid funds. If guest students submit a regular application for admission and do not indicate their guest-student status, they may be required to follow the same registration processes as new students.

Guest Students from Schoolcraft College

Students in good standing (minimum 2.0 GPA) currently attending Schoolcraft College may request a Michigan Uniform Guest Application from the Registrar's Office to attend another college. The Schoolcraft College Registrar must approve courses taken at another college.



International Students Including Commuting Canadians and Non-Native English Speakers

For admission to Schoolcraft College, an international student must submit the following:

1. A completed, signed Application for Admission.
2. Official school transcripts.

To be issued the necessary visa documents, an international student including commuting Canadians must:

1. Submit a completed international student packet.
2. Demonstrate a sufficient level of financial support with documentation verifying the availability of funds.
3. Provide a copy of a valid passport identification page.
4. All applicants whose native language is not English must demonstrate adequate knowledge of written English. A minimum Test of English as a Foreign Language (TOEFL) score of 500 on the paper test, 173 on the computer-based test or 70 on the Michigan English Language Assessment Battery (MELAB) is currently considered proof of English proficiency.

International students should contact the Office of Admissions at 734-462-4426, the Counseling Center at 734-462-4429, or visit the Schoolcraft Web site to obtain an international student packet and Application for Admission.

F-1 visa students must maintain full-time enrollment to fulfill United States Citizenship & Immigration Services (USCIS) requirements. All new students must follow College assessment testing and counseling requirements and attend International Student Orientation. In addition, proof of health coverage is required. Students are admitted for fall, winter, spring and summer terms.

Obtaining and maintaining your visa status is your responsibility. Schoolcraft College is authorized to issue visa documents for foreign nationals to obtain F-1 student status either by changing their current visa status if they are in the U.S. or by obtaining an F-1 visa through a U.S. consul outside of the U.S. If you are in the U.S. with another visa status, you must be sure that your current status allows for full-time study. For example, a visitor status (B-2, B-1, WT or WB) does not allow for full-time study. Also, someone in a visitor status who applies to change to a student status while in the U.S. is not allowed to begin full-time study until a change of status to the F-1 is approved by the USCIS, usually a two to three month process. Please consult with our International Information Specialist in the Counseling Center at the earliest opportunity to determine what steps you need to take to maintain a valid visa status during your studies at Schoolcraft.

Non-Native English Speaking Students

All students whose native language is not English will be required to take assessment testing.

Campus Tours

A campus tour provides an excellent opportunity to learn about our academic programs, meet our faculty and see our facilities. Campus tours are offered at both the Livonia campus and the Radcliff Center in Garden City. Contact the Office of Admissions at 734-462-4426 or admissions@schoolcraft.edu to schedule your visit for the Livonia Campus. Contact the Radcliff Center directly at 734-462-4786 to schedule a visit.

Financial Information

Tuition and Fees

Students wishing to register should carefully check class schedules for current tuition and fees. Class schedules are available at www.schoolcraft.edu. Students who wish to receive a mailed schedule may request one from the Office of Admissions by calling 734-462-4426.

All tuition and fees are due at registration. Payments can be made with cash or checks payable to Schoolcraft College, or MasterCard, VISA and Discover credit cards. A new tuition payment plan, administered by FACTS Management Company, will be available beginning fall 2004. The plan will allow students to pay their tuition and fees in several installments. Tuition and fees are subject to change. Students with questions about payments should contact the Cashier's Office at 734-462-4449.

Resident and Nonresident Status

Residency status determines the tuition rate at which students are charged.

- A resident student is one whose legal residence is within the College District. The College District includes the public school districts of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton and part of Novi. Students may be asked to certify residence status at any time while attending the College. Students are charged tuition based on the address on record in the Registrar's Office. Students who move and change their residency status, but do not report the change, will be charged the appropriate tuition rate. Resident status is determined at the beginning of each semester.
- A nonresident student is one who resides outside the College District.
- An out-of-state student is one whose legal residence is beyond the boundaries of the State of Michigan.
- International students (F-1 or other immigrant visas) who are admitted to the College are considered out-of-state residents for tuition rates, regardless of length of residency within the district or state.
- Visa holders who are resident homeowners and long-term residents may be eligible for a residency status review. Information on residency status reviews for visa holders is available by contacting the Registrar.
- The legal residence of unmarried students under 18 years of age is that of their parents or guardian, regardless of where the student may reside. For those older than 18, the legal residence is that city in which residence is permanently maintained.
- The Registrar will review questions about resident and nonresident status. Students who change their legal residence must complete a Change of Address Form in the Registrar's Office.

Students may be asked to provide two or more of the following items as proof of resident status:

- Valid driver's license.
- Copy of a lease.
- Property tax receipt.
- Other proof the College finds acceptable.

Course Fees

Schoolcraft College requires students to pay course fees to cover the cost of special materials, equipment or other specialized support. The course fees are listed in the current credit class schedule and are in addition to other fees, including the registration fee. Generally, course fees range from \$10 to \$45 per course, but a few, such as music and culinary arts, are higher.

Company-Paid Tuition and Fees

The College will invoice companies for students' tuition, fees, books and supplies if the companies authorize the College to do so in a purchase order or authorization letter. Authorizations are required each semester. Contact Student Accounts, 734-462-4400, ext. 5362, for additional information.

Senior Adults Tuition Waiver

Students 60 years and older may take credit classes at Schoolcraft College at 50 percent of the resident tuition rate. Refer to the Tuition Rates & Fees table in the current semester credit schedule. For Continuing Education Services (CES) classes, a reduced course fee is specified for each course and is listed in CES schedules and brochures.

To qualify for a tuition discount, proof of senior status is required. Before registering, students must verify senior status with the Registrar's Office or CES Office on the Livonia campus, or the Radcliff Center office, to receive the senior adult identification card. The College accepts a birth certificate, driver's license or the Michigan State Identification Card, available from the Secretary of State.

Refund Policy

Refund dates for credit classes appear in the current semester class schedule. Before the beginning of each term and until the end of schedule adjustment, students receive 100 percent refund of tuition and selected fees. The registration fee is nonrefundable. After the end of the schedule adjustment period, there are no refunds. Refunds to students who drop credit courses or withdraw completely from the College are made in accordance with the current credit class schedule. Refundable fees include the Course Fees, Instructional Equipment Fee, the Applied Music Fee, the Physical Education Fee and the Registration Fee for the Children's Center. Refunds for payments made with Visa, MasterCard or Discover are made by check, rather than as charge-card credits. Allow three to four weeks for refund processing. Refund checks are mailed directly to students.

Refunds are made by the Office of Finance and Business Services only after students drop the class(es) and complete the Request for Refund Form. Students whose classes are canceled by the College may receive a 100 percent tuition refund or select another open section paying any added fees. Consult the Registrar's Office for the refund period for classes that do not start at the beginning of a semester. Classes meeting 7 or 12 weeks have a shorter refund period.

Normally, there are no exceptions to the refund procedure. However, students requesting an exception to the refund policy due to extenuating circumstances such as military service, serious illness, or mandatory work-shift change may file an Appeal in the Registrar's office. Documentation indicating the circumstances must be submitted. Such requests will be reviewed by the Appeals Committee and handled on a case-by-case basis.

Financial Aid

Office of Financial Aid
McDowell Center Room 260
734-462-4433

A college education is one of the most important investments anyone can make. Schoolcraft College understands that students often need help to finance their education. Financial aid programs can provide students with options that may assist them in meeting educational expenses and achieving their educational goals. There are two basic categories of financial assistance: need-based and non-need-based aid. Need-based aid uses a formula to determine a family's financial strength and eligibility for a program. Non-need-based aid does not use the financial strength of the family but may take into consideration other factors such as grade-point average. All programs, criteria and funding are subject to change without notice.

Additional information on financial aid may be found on the following Web sites:

schoolcraft.edu/aid	Financial aid page at Schoolcraft College
ed.gov	U.S. Department of Education (Student Guide, FAFSA)
fastWeb.com	Scholarship Search
wiredscholar.com	Scholarship Search
students.gov	Gateway to the Federal Government
nasfaa.org	National Association of Student Financial Aid Administrators
finaid.org	Financial Aid Information Page (includes scholarship searches)
mapping-your-future.org	A guide to careers, schools, financial aid and entrance and exit loan counseling
michigan.gov/mistudentaid	Michigan Department of Treasury Student Financial Aid
salliemac.com	SallieMae home page (student loan information)
collegeispossible.org	A resource guide for parents and students

Financial Aid Programs

The following section provides brief descriptions of the financial aid programs available at Schoolcraft College. Enrollment requirements vary by program, and can range from less than half-time to full-time enrollment each semester. Awards are made based on meeting eligibility criteria, satisfactory academic progress and the availability of funding.

Scholarships

Scholarships do not have to be repaid and are primarily based on academic achievement. Students should consult the Scholarship Book in the Office of Financial Aid, Student Activities or the Radcliff Center main office. The Scholarship Book contains the current scholarship offerings, criteria and deadline dates for each semester. In addition to those listed in the book, the following scholarships are available.

Michigan Competitive Scholarship

This state scholarship provides up to \$1,300 per academic year to students who achieve required scores on the ACT exam, demonstrate financial need and enroll in an eligible Michigan college or university. The Michigan Department of Treasury determines eligibility and award amount.

Michigan Merit Award

This state scholarship provides a \$2,500 award, \$1,250 awarded in each of two years, to graduating high school seniors who meet Michigan Education Assessment Program (MEAP) High School Testing (HST) scores and other criteria as determined by the Michigan Merit Award Board.

Schoolcraft College Athletic Scholarship

Contact the Athletic Department at 734-462-4400, ext. 5564 for information.

Schoolcraft College Institutional Scholarships

The Office of Financial Aid awards a limited number of scholarships each academic year to students who demonstrate financial need. Awards are made on a case-by-case basis and no application is required.

Schoolcraft College Trustee Award

This scholarship program is available to entering fall semester first-year students who graduated the previous June from select area high schools. By the deadline date, students must submit a Trustee Scholarship Application, seventh-semester high school transcript reflecting a minimum 3.0 grade-point average, ACT scores or Schoolcraft College assessment test results, and a completed essay on a selected topic.

Students must register for at least 12 credit hours each semester and the scholarship is renewable for the second year of study.



Schoolcraft College Foundation Scholarships

Through generous public and private scholarship donations, the Schoolcraft College Foundation helps students reach their educational goals. Community members and organizations are encouraged to establish scholarships and endowments honoring special persons or groups while assisting Schoolcraft College students. In general, most scholarships require a 3.0 cumulative grade-point average and enrollment in at least six credit hours. Eligibility criteria, award amounts and deadline dates vary.

Schoolcraft College Faculty Academic Scholarships

This scholarship is available to students who have earned 12 credit hours at Schoolcraft College, have a minimum 3.0 grade-point average and meet individual departmental scholarship criteria. Faculty committees establish scholarship requirements and select the recipients of these awards. Students must enroll in at least six credit hours.

Women's Resource Center (WRC) Scholarships

Women's Resource Center scholarships are available to those who may or may not qualify for federal or state financial aid. The WRC works vigorously to ensure scholarship opportunities are available for all women, with a special emphasis on adult women returning to school. Scholarship information is available at the WRC.

Grant Programs

Grants do not have to be repaid and are based primarily on demonstrated financial need.

Federal Pell Grant (FPELL)

This federal grant program is for students without a bachelor's degree in an undergraduate program who demonstrate exceptional financial need. The federal government each academic year determines award eligibility and amount. The current range is \$400-\$4,050. Enrollment requirements range from less than half-time to full-time depending on individual eligibility.

Federal Supplemental Educational Opportunity Grant (FSEOG)

This federal grant program is for students without a bachelor's degree in an undergraduate program who demonstrate exceptional financial need. The award is determined by the College and is based on funds available each year. Enrollment requirements range from less than half-time to full-time depending on individual eligibility.

Michigan Educational Opportunity Grant (MEOG)

This state grant program provides up to \$1,000 per academic year to students with demonstrated exceptional financial need. Students must enroll in at least six credit hours per semester and must have been continuous residents of Michigan for 12 months.

Michigan Adult Part-Time Grant (APTG)

This state grant program provides up to \$600 per academic year to students with financial need who enroll for three to eleven credit hours per semester, are considered independent students according to federal guidelines and have been out of high school at least two years (other than GED). The award is determined by the College and is based on funds available each year.

Michigan Native American Tuition Waiver

Michigan residents who are native North Americans and are certified one-quarter blood quantum by their tribal association may be eligible for tuition assistance funds. Information and requirements are available through the Office of Financial Aid. The Office of Financial Aid determines eligibility.

Tuition Incentive Program (TIP)

This state grant program provides funding for tuition and mandatory fees 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. TIP only pays for tuition and fees at the resident college rates. Students must enroll in at least six credit hours per semester.

Women's Resource Center (WRC) Special Populations Program

The Special Populations Program, administered through the Women's Resource Center, has funds available for single parents, displaced homemakers and persons in programs considered nontraditional for their genders. This assistance is granted for tuition, textbooks and child care. Contact the WRC at 734-462-4443 or visit the office in the McDowell Center.



Student Employment

Student employment requires the student to work to earn the award. Work-study students are placed in jobs on campus, and their wages are paid in part by the work-study program. Student employment under these programs is limited to 25 hours a week. To be eligible, students must demonstrate financial need and register for at least six credit hours per semester.

Federal Work-Study (FWS)

This federal work-study program provides funds for part-time employment on campus.

Michigan Work-Study (MWS)

This state work-study program provides funds for part-time employment on campus.

Student Loans

Student loans are borrowed money and require repayment. Because these loans are a form of financial aid, students are required to apply for financial aid (Free Application for Federal Student Aid or FAFSA) before a loan request can be considered. Loan request forms are available online or from the Office of Financial Aid. Schoolcraft College recommends students request loan amounts they will realistically be able to repay. The approved loan amount is determined by the student's financial need, other financial aid and outside resources, program limits and loan amount requested.

The school, not the lender, determines student eligibility for a federal student loan. If reasons are documented and explained to students in writing, the Office of Financial Aid may decline to certify an otherwise eligible loan application. In addition, a loan may be certified for an amount less than that for which the student would otherwise be eligible.

To be eligible for a student loan, students must enroll in at least six credit hours each semester. In addition, students need to make satisfactory academic progress at Schoolcraft College and therefore, loans may not be approved for students on Financial Aid Probation. Interest rates, repayment terms and borrowing limits vary with each loan program. Repayment on these low interest educational loans begins after a student stops attending school on at least a half-time basis. Entrance counseling is required before processing a student loan request. In addition, all students must participate in exit counseling when their enrollment falls below half-time status.

Federal Stafford Loan

These low interest loans are made by a bank, credit union or other lender. To receive a Subsidized Stafford Loan, the student must demonstrate financial need. Subsidized loans are exempt from interest accrual until six months after the student ceases attending on at least a half-time basis. Unsubsidized Stafford Loans have the same terms as a Subsidized Stafford, except borrowers are responsible for interest that accrues while they are in school, and the loan is not based on demonstrated financial need. Interest rates on both these loans are set annually and currently capped at 8.25 percent.

Federal PLUS Loan

Federal PLUS Loans are for parents who want to borrow money to help pay for their dependent children's education. PLUS loans are not based on demonstrated financial need; however, the student must first apply for need-based aid before applying for a PLUS loan. The interest rate is variable, determined annually and currently capped at 9 percent. Parents who have no adverse credit history may apply for PLUS Loans.

Michigan (MI) Alternative Student Loan

The MI-Loan Program is not based on demonstrated financial need; however, a student first must apply for need-based aid before applying for this loan. Loans range from \$500 up to the full cost of attendance. Information and applications are available by contacting the Michigan Higher Education Student Loan Authority online at www.michigan.gov/mistudentaid or by calling 1-888-643-7521.

Veterans

Veterans Affairs Office
McDowell Center Ro. 275
734-462-4400, ext. 5213

Students attending college under the provisions of the G.I. Bill (Chapters 30, 32, 35, Title 38 and Chapter 1606, Title 10) are entitled to all privileges and are responsible for all Schoolcraft College regulations. All financial obligations, including payment of tuition and fees, must be paid on the scheduled dates.

An advance payment program to help defray the cost of registration is available to eligible students who apply at least six weeks before the beginning of the semester.

Approved veterans who are attending under Chapter 31 (Vocational Rehabilitation) are not required to pay tuition and fees at the time of registration. Veterans under this program are required to contact the Schoolcraft College Veterans Liaison in the Counseling Center before registering.

The Veterans Liaison helps students apply for VA educational benefits and operates as a contact person between the student and the Veterans Administration.

In compliance with the Department of Veterans Affairs, Circular 20-76-84, the College has developed the following standards for progress. Each student must conform to these standards to be eligible for Veterans Administration Educational Benefit Certification:

- All students receiving various educational benefits must have their class schedules approved by a counselor or the Veterans Liaison.
- A Request for Certification must be filed with the Schoolcraft College Veterans Liaison each semester.
- All changes of address, curriculum and withdrawal from courses shall be reported immediately to the Veterans Liaison.

All veterans have the same rights and responsibilities regarding conduct and disciplinary action as other students.

Veterans and veteran dependents are encouraged to contact the Veterans Liaison in the Counseling Center in the McDowell Center for information about VA educational benefits.

Financial Aid Application Process

Students should apply for financial aid each academic year they wish to be considered for aid. Applications are processed year round, but students are advised to file applications as early as possible to receive notification of eligibility before tuition payments are due. This usually means filing in the early spring for the upcoming academic year.

The Free Application for Federal Student Aid (FAFSA) is available on January 1 for the next academic year. For the 2004–2005 academic year, apply on or after January 1, 2004 for: summer 2004, fall 2004, winter 2005 and spring 2005.

Applying for Financial Aid

1. Complete and submit the *Schoolcraft College Application for Admission*. The application is available online or from the Office of Admissions. While you do not have to be admitted to Schoolcraft College to apply for financial assistance, aid is not awarded until you have been admitted to the College and have a student number.
2. Complete and submit the *FAFSA* or *Renewal FAFSA*
 - Online at www.fafsa.ed.gov. If you are unable to access the Internet, you may request a paper application from the Office of Financial Aid.
 - Indicate Schoolcraft College's code (**002315**) on your FAFSA. This permits the Office of Financial Aid to access your financial aid results electronically. If you are thinking about transferring mid-year, indicate your transfer institution first, then Schoolcraft College.
3. Approximately one week (Web application) to four weeks (paper application) after you submit your FAFSA, you will receive a Student Aid Report (SAR). The SAR recaps the information you submitted on your FAFSA.
 - Read the Information Summary, review your SAR for accuracy and submit any changes to the Office of Financial Aid. If Schoolcraft College is not listed, you may add it online or submit the SAR to the Office of Financial Aid.
 - If you provide an e-mail address, the Federal Processor will communicate with you via e-mail. Otherwise, correspondence will be by mail.
4. Schoolcraft College will request additional documents, if necessary.
 - If selected for verification, you will be required to submit income documentation and a verification worksheet. Your SAR will alert you if you have been selected for verification.
 - Other information may be requested as determined by the Office of Financial Aid.
 - Respond immediately to all requested information.
5. Once the requested information is submitted, your file is completed, and it is reviewed, your eligibility will be determined. You will be notified in writing of your eligibility. Files are reviewed in the order completed. See the following priority dates.

PRIORITY DATES FOR AWARD NOTIFICATION

Semester	Submit FAFSA by:	Financial aid file complete by:
SUMMER 2004	April 1, 2004	May 1, 2004
FALL 2004	May 1, 2004	July 1, 2004
WINTER 2005	September 1, 2004	November 1, 2004
SPRING 2005	January 1, 2005	March 1, 2005

Applying for financial aid early gives students the best chance of having an award determination in time for the start of classes. Those applying after the priority dates may not have their eligibility determined in time for the start of classes.

6. Inform the Office of Financial Aid of changes in financial or family circumstances, such as loss of employment, death or disability of a family wage earner, divorce or separation. You may qualify for a re-evaluation of your financial aid information.
7. Keep your demographic information current with the Registrar and the Federal Processor.

Financial Aid General Information

Rights and Responsibilities

Financial aid guidelines, rules, requirements and consumer disclosures are on the College Web site at www.schoolcraft.edu/aid, in the College Catalog, on the Award Information and Conditions sheet and on the Important Information Bulletin sheet. Materials sent to students from the Office of Financial Aid and its service providers may include information regarding requirements. All award and eligibility requirements are subject to change without notice. Financial aid applicants and recipients are expected to review these requirements and follow the policies and procedures established by the Office of Financial Aid, the College and the financial aid programs.

Eligibility for Financial Aid

Eligibility requirements vary from program to program. Financial aid program awards are determined and disbursed in compliance with established federal, state and institutional requirements and guidelines. In addition to meeting program eligibility requirements, students must adhere to College policies and procedures.

Financial Need

Financial aid programs were developed on the premise that the student and spouse, if married, or the student's family, have the primary responsibility for financing a college education. Financial aid is available to supplement the student's and family's resources.

Most aid dollars are awarded on the basis of a federal need analysis formula established by the U.S. Congress. The formula measures each family's ability to pay for college expenses and is calculated using all the questions and answers on the Free Application for Federal Student Aid (FAFSA). The result is the student's Expected Family Contribution (EFC).

The following formula is used to determine an individual student's need for financial aid: Cost of Attendance – Expected Family Contribution = Financial Need. Students may be awarded up to their total need from various financial aid programs. Depending on eligibility, an award package can be any combination of grants, scholarships, work-study and loans. The student can accept or reject all or any part of the award package.

Selection of Recipients

In addition to program eligibility requirements and financial need, students are selected to receive financial aid based on deadlines and maintaining satisfactory academic progress. Schoolcraft College awards financial aid in the following order, depending on the student qualifications: 1) grants 2) scholarships 3) work-study 4) student loans.

The Office of Financial Aid determines the type and amount of each award. The type and amount of award are based on a variety of factors including financial need, outside resources, class attendance, enrollment status, dependency status, program limitations and the availability of funds. When funds are limited, awards may be granted to applicants who meet all requirements and have a complete financial aid file.

Cost of Attendance for Financial Aid

Using rules established by the U.S. Congress, the College sets cost of attendance allowances. These reflect modest book, travel, room, board and miscellaneous allowances as well as average tuition and fee charges. In certain circumstances, if applicable, it may reflect costs related to dependent care, a disability and loan fees.

Typical cost of attendance for a full-time student:

	Resident	Non-Resident
Tuition and fees	\$1,633	\$2,443
Books and supplies	\$996	\$996
Transportation	\$1,404	\$1,404
Miscellaneous	\$1,020	\$1,020
Room and board	\$4,800	\$4,800
TOTAL	\$9,883	\$10,663

Figures are based on 2003–2004 academic year costs and subject to adjustment due to changes in law and College Board of Trustee policy. Actual costs will vary from student to student.

Transferring to Another College

Students planning to transfer to a four-year institution should contact that institution's Financial Aid Office for financial aid requirements, deadline dates and application procedures. Students usually begin the application process in January or February for the following September. Students who transfer from one institution to another within the same academic year will have their aid prorated based on use at the first institution attended. Financial aid is generally not transferable from one institution to another.

Transfer Scholarships

Senior colleges and universities award many scholarships to graduates of Schoolcraft College who plan to transfer to their institutions. Scholarships are awarded on the basis of academic achievement, financial need or other specified criteria. Contact the college to which you plan to transfer or the Schoolcraft College Counseling Center for information on transfer scholarships.

Attendance at Multiple Institutions

Students may not receive financial aid at another institution and Schoolcraft College concurrently. Students will be responsible for any over awards and will not be eligible for further aid until the funds are repaid.





Study Abroad

Students may be eligible for federal assistance for attending a study abroad program that is approved for credit by Schoolcraft College. Contact the Office of Financial Aid to determine individual eligibility.

Class Attendance

Students need to attend their class(es) to establish and maintain financial aid eligibility. Instructors record the attendance of all students each week. The Office of Financial Aid is notified of the financial aid students who never attend or stop attending classes. Not attending a class(es) affects the amount of aid a student is receiving now and in the future. This usually results in the student owing money to the College.

Withdrawals and Refunds

The College's tuition and fee refund policy is 100 percent refund through the end of the schedule adjustment period for each semester. The registration fee is non-refundable. See the Schedule of Classes each semester for specific refund dates. Students initiate a refund by completing the Refund Request Form available in the Registrar's Office. Students who drop classes and receive a 100 percent refund may have their financial aid adjusted and may owe money to the College.

After the refund period has ended, the College allows students to withdraw from class(es) through the tenth week of the fall or winter semester, and through the fifth week of the spring or summer sessions. See the Schedule of Classes each semester for specific withdrawal dates. Students initiate a withdrawal by completing the Drop Form available in the Registrar's Office. Students who withdraw from class(es) receive a W grade. The grade of W does not adversely affect the student's grade-point average. However, a W is considered attempted and not completed and does adversely affect the student's completion rate. See the complete Academic Progress Policy.

Complete Withdrawal

(Return of Title IV Funds and Unearned Financial Aid)

When a student completely withdraws or walks away from his/her classes before completing at least 60 percent of the semester, federal law requires the College and sometimes the student to return a percentage of the Title IV funds received by the student. Title IV program funds include Federal Pell Grants, Federal Supplemental Educational Opportunity Grants and Federal Stafford Loans.

The number of days students have attended during the semester determines the amount of the students' earned Federal Title IV funds. Earned Title IV financial aid may be used to pay for institutional charges of tuition and fees or used toward non-institutional expenses such as room and board, books, supplies and transportation.

Unearned Title IV funds must be returned to the federal government. The College must return a portion of the students' unearned aid. Students will owe the College for any resulting unpaid institutional charges (tuition and fees). In addition, students must return to the federal government a portion of unearned funds received in excess of tuition and fees. Students will be ineligible for future financial aid at any college or university if the unearned funds are not repaid to the U.S. Department of Education.

Contact the Office of Financial Aid for current Return to Title IV Funds schedules and examples.

Taxes and Financial Aid

Taxability: Generally, grants and scholarships are tax free if they are used for qualifying tuition and course-related expenses. Course-related expenses, such as fees, books, supplies and equipment, must be required of all students in a course of instruction to be used as a qualifying expense. Questions regarding tax issues should be directed to the IRS or your tax preparer.

Tax Credits: The 1997 Taxpayer Relief Act created two tax credit programs for college students. The Internal Revenue Service provides the requirements for the Hope Tax Credit and the Lifetime Learning Credit programs. Questions regarding tax issues should be directed to the IRS or your tax preparer.

Individual Retirement Accounts: The Taxpayer Relief Act allows early withdrawals from IRAs to pay for qualified higher education expenses. It also establishes the nondeductible Education IRA. Consult the Internal Revenue guidelines or your tax advisor to determine eligibility for these programs. Questions regarding tax issues should be directed to the IRS or your tax preparer.

Financial Aid Academic Progress Policy

Schoolcraft College Academic Progress Policy

In addition to meeting individual financial aid program requirements, students have to make satisfactory academic progress toward completing a degree or certificate program to receive aid.

The Schoolcraft College Academic Progress Policy applies to all students who receive financial aid from any program we administer. Federal regulations require that the policy includes reviewing enrollment periods for which students did not receive aid, as well as the semesters students did receive aid.

The following guidelines describe the requirements necessary to maintain financial aid eligibility at Schoolcraft College.

1. Eligibility Requirements—A student must:

- Have successfully completed at least 67 percent of all Schoolcraft College credit hours attempted or be a first-time student at Schoolcraft College, and
- Have a cumulative Schoolcraft College grade-point average of at least 2.0, and
- Along with transfer credits, not have attempted more than 90 credit hours or 150 percent of the student's official Schoolcraft College academic program requirements.

2. Evaluation of Eligibility

Eligibility is determined when a student applies for financial aid each academic year and/or upon student request. Applicants who have not made satisfactory academic progress are notified by mail.

3. Probation

Financial aid applicants who do not meet the eligibility requirements will be granted an academic year of probationary financial aid to move toward acceptable GPA or completion rates. Students who fail to make satisfactory academic progress after the probationary period will have their financial aid withdrawn until they meet the standard or have an acceptable appeal. Loans are not awarded to students on probation.



4. Appeals

A student whose financial aid has been terminated may appeal in writing. All appeals should include appropriate documentation. Extenuating circumstances considered for appeals include personal illness or accident, serious illness or death of an immediate family member, or other circumstances beyond the reasonable control of the student. Students in extended credit-hour programs and/or second-degree programs may submit appeals.

Acceptable documentation includes letters from a physician, attorney, social service agency, parole officer, or an obituary notice, divorce decree and/or academic records. The student will be notified of the appeal results in writing. Appeals can result in a) denial of reinstatement b) reinstatement of the student's eligibility or c) a probationary period.

5. Reinstatement

A student may be reinstated after meeting one of the following conditions. Classes taken at institutions other than Schoolcraft College are not considered for reinstatement purposes.

- The student has taken, without funding from the Office of Financial Aid, at least six credit hours and has passed those six credit hours. The student will be given probationary aid for the balance of the academic year.
- The student has taken, without funding from the Office of Financial Aid, enough credit hours to meet the GPA and completion rate requirements. The student will be reinstated without probation.
- The student meets the GPA and completion rate requirements after the probationary period. The student will be reinstated without probation.

6. Grades and Successful Completion

Credit hours attempted include all grades recorded on the transcript of 4.0 through 0.0, NC, W and I. Repeated courses are identified as NC on the transcript and are considered as credit hours attempted. Successful grades are 1.0 through 4.0. Unsuccessful grades are 0.0, W, NC and I. Unsuccessful grades are considered attempted and not passed for purposes of determining satisfactory academic progress.

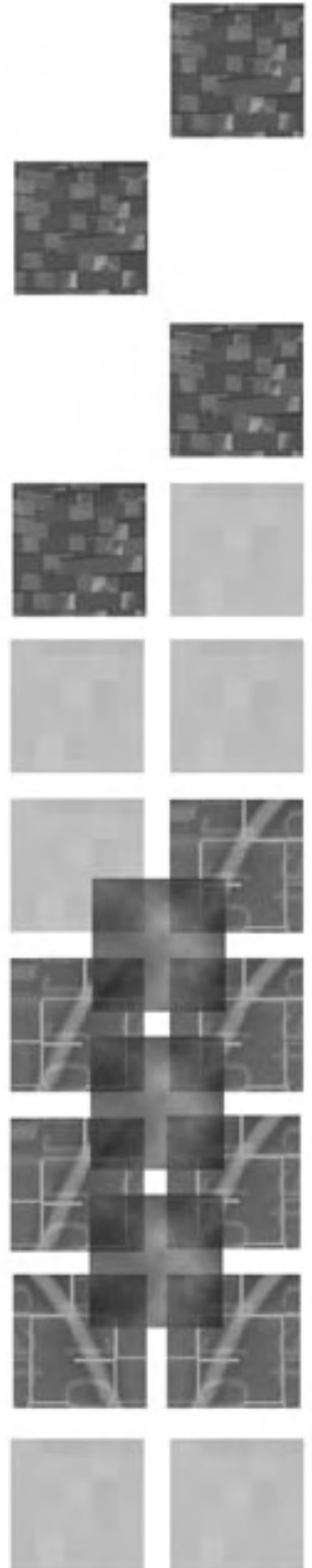
7. Audits and Credit by Exam

Classes taken for audit or credits earned by exam are not considered when determining financial aid eligibility.



Schoolcraft College

Academic Support Services



Academic Support Services

Career Planning and Placement Center—CPPC

McDowell Center Room 315
734-462-4421

Students who are in need of assistance for career planning or job placement services are invited to visit the Career Planning and Placement Center located on the third floor of the McDowell Center. Licensed professional counselors specializing in career counseling and professionally trained job placement personnel are available and willing to assist students in the following areas:

Career Counseling

- Decision Making.
- Career Choices.
- Interest Inventories.
- Skills Identification.
- Values Clarification.
- Choosing a Major.

Students can stop by or call to make an appointment with a career counselor.

Career and Employment Guidance

- Assistance with locating career information.
- Salary information.
- Future employment trends.
- Resume development.
- Effective interviewing skills.
- Job seeking skills.
- Computerized research using MOIS, Discover, Open Options and the Internet.

Employment Services

- Career and employment fairs.
- Job listings database: on-campus, off-campus.
- Internet-based employment searches.

Assistance is available on a walk-in basis for most services.



Counseling Center

McDowell Center Room 275
734-462-4429

The Counseling Center provides quality services and professional staff to assist students in developing meaningful educational, career and personal plans that are compatible with their life goals. Some areas in which counselors can be of assistance include:

- Deciding on a major.
- Discussing curriculum.
- Transfer planning.
- Helping with personal issues and referral information.
- Time management.
- Educational planning.
- Course scheduling.
- Clarifying career goals.
- Graduation audits.

The Counseling Center houses transfer information, including transfer scholarships. Counselors and staff meet regularly with senior colleges and universities to establish and maintain transfer agreements that will assist students in making a seamless transition to the senior institutions. Information on career certificate and associate degree programs also is available in the Counseling Center.

Student Orientation

Student orientation programs are designed to provide essential information and help ease the transition to college for entering students. The Counseling Department offers several half-day orientations during the spring and summer and condensed versions before classes begin. All entering students must attend one of these sessions before registering for classes.

Educational Planning

Students who work closely with a counselor for educational planning are more likely to succeed in college and achieve their educational goals. Counselors can be seen by appointment or on a walk-in basis. Schedule early for best results.

Career Development

The counseling staff offers a two-credit career development class, HDS 110, Career Decision Making. This course is very helpful for clarifying important decisions about career planning.

Registrar's Office

McDowell Center Room 255
734-462-4430

The Registrar's Office provides registration services to students for traditional and continuing education programs. Registration occurs at various times throughout the year and is available by telephone, online and in person. Registration information is available in current semester schedules and on the Schoolcraft College Web site (www.schoolcraft.edu). The Registrar's Office is responsible for maintaining all student academic records. Other office services include enrollment verifications, student loan deferment processing, transfer course evaluations and guest application processing.

Learning Assistance Center

McDowell Center Room 210
734-462-4436

Radcliff Center Room 120
734-462-4400, ext. 6021

Academic and Assessment Services, which includes the Assessment Center, Learning Assistance Center (LAC), and Collegiate Skills, has as its primary function providing learning opportunities and services that enable students to be as successful as possible in educational, occupational and personal endeavors. Emphasis is placed on the student becoming an active learner. Academic and Assessment Services is committed to helping students succeed.

Free Tutoring

The College provides free peer tutoring through the LAC for many courses. Drop-in tutoring enables students to meet with tutors at conveniently scheduled times. Schedules are available on Student Activities bulletin boards across campus and at the LAC. Students who would benefit from more extensive tutoring may meet with a Faculty Facilitator at the LAC to evaluate other tutoring options. Students also are encouraged to take advantage of Final Math Reviews sponsored by the LAC near the end of fall, winter and spring semesters. The review sessions provide excellent preparation for math final exams using instructor-designed review packets.

Peer-Assisted Learning (PAL)

The Peer-Assisted Learning Program links participating instructors with their top former students (PALs) who provide academic support to current students. Under the direction of the instructor, PALs meet students outside of class to discuss course material, work on assignments and prepare for exams. Contact the LAC for information on courses using PALs.

Mentoring Program

The purpose of the peer mentoring program is to assist at-risk nursing students, international students and students with special needs. Peer mentoring is the process of students working together to help each other succeed. It provides an opportunity for accomplished student role models to guide incoming Schoolcraft College students on the right path toward meeting their needs and goals.

MICUP-University Bound

Schoolcraft College, in collaboration with Wayne State University, offers students the University Bound program, a King-Chavez-Parks initiative. University Bound helps students prepare to transfer to a four-year university during their years at Schoolcraft College. It is specifically targeted at students whose goal is a bachelor's degree. It is a free program. Participating students are invited to attend workshops and seminars, create an electronic portfolio, visit WSU's campus, meet employers and develop mentor relationships with Wayne State University students and faculty.

Writing Fellows

The Writing Fellows program provides free technical help to students for all phases of composition. Writing Fellows are Schoolcraft students who are trained to help organize, edit, evaluate and provide constructive feedback on writing assignments for any course. Writing Fellows are available at the LAC on a drop-in basis and through e-mail at fellows@schoolcraft.edu. Contact the LAC for the Writing Fellows schedule and further information.

Math Videos

The LAC provides instructional videos, which complement current textbooks for Math 45, 47, 53, 113, 119, 128 and 129. Videos may be checked out for two days.

LAC Learning Lab

The Learning Lab provides computer programs for students enrolled in Collegiate Skills courses. The programs are designed to increase reading speed and comprehension and to improve writing and test-taking skills.

Study Skills Enhancement

Students who want to improve their textbook reading, note taking, memory retention, time management or test-taking skills may consult with a Faculty Facilitator at the LAC. The Facilitator will help the students evaluate their learning skills, identify the appropriate courses and find resources for skill enhancement. In addition, a variety of handouts and Web resources are available to students seeking to improve their study skills.

Disability Services

Schoolcraft College provides appropriate accommodations for students with documented physical, learning and emotional disabilities. Arrangements are designed to meet individual needs and are facilitated through an Equal Access Counselor at the LAC. Services include, but are not limited to, specialized counseling, application assistance, referrals, adaptive equipment, textbooks on computer disks, testing accommodations, interpreters, note takers, tutoring, faculty liaison and modifications of computer and classroom facilities. Also available is a two-credit course, Collegiate Skills 110 – Learning Skills LD, designed specifically for students with learning disabilities as they make the transition from high school to college. Contact the LAC at 734-462-4436 for accommodations or further information.

English Language Proficiency

A lack of English language proficiency does not prevent admission to Schoolcraft College; however, most college courses require basic proficiency in English. Non-native English speakers who want to develop their English skills can enroll in English 052, Basic Grammar for Second Language Students. The LAC provides additional opportunities for English language development through an English Language Institute with continuing education workshops, an International Student Relations Club where individuals may practice spoken English and share experiences, and interactive computer programs in the LAC Learning Lab. See page 10 for International Student Guidelines.

Core Skills Assessment Program

Academic and Assessment Services oversees the College's Core Skills Assessment Program. The College requires candidates for all associate degrees to demonstrate basic competencies in three Core Skills areas. For a full description of the program, refer to page 38–39 in this catalog.

Test Preparation

The LAC provides test preparation workshops that emphasize test taking strategies and alleviating test anxiety. Workshops are available for Schoolcraft placement tests and standardized national tests such as SAT, ACT, PSAT, GRE, GMAT, LSAT, TOEFL and GED.

Academic Skills Workshops for College Students

The LAC offers reading comprehension, speed-reading, math refresher and test taking improvement workshops to enhance basic skills that are vital to college success.

Assessment Center (Testing Services)

McDowell Center Room 220
734-462-4806

The Schoolcraft College Assessment Center offers the following comprehensive testing services for students, faculty, community members and business and industry.

Assessment/Placement Testing

Successful course selection begins with an accurate assessment of each student's ability in reading, writing and mathematics. The Assessment Center offers free walk-in placement testing using a timed ASSET test of basic skills or an untimed Computerized Placement Test (CPT). No appointment is necessary. As an alternative to placement testing, students may submit ACT scores from tests taken within the last three years.

Make-up and Distance Learning Tests

When a test is missed because of illness or extenuating circumstances, instructors who permit students to make up exams may arrange for a make-up test to be taken at the Assessment Center. Students taking Distance Learning courses also may take their exams on a drop-in basis at the Assessment Center as scheduled by their instructors.

College-Level Examination Program (CLEP)

CLEP is a national credit-by-exam computerized program from The College Board that provides exams in more than 30 subject areas. CLEP exams are offered monthly by the Assessment Center for students and members of the community. To obtain college credit for work experience and skills, individuals must achieve the minimum scaled score recommended by the American Council on Education. Preregistration is required. Contact the Assessment Center for information and a registration packet.

DANTES Subject Standardized Tests (DSST)

DSST is a nationally recognized testing program that affords individuals the opportunity to receive college credit for learning acquired outside the traditional college classroom. More than 30 test titles in the areas of social science, business, mathematics, applied technology, humanities and physical science are available. To obtain credit, individuals must achieve the minimum scaled score recommended by the American Council on Education. DSST exams are offered by the Assessment Center and require preregistration. Contact the Assessment Center for information and registration materials.

General Educational Development Tests (GED)

The GED is a series of tests that measure knowledge and skills in reading, writing, mathematics, social studies and science. The tests are taken in a two-day sequence, and candidates either must be at least 18 years old or their high school class must have graduated. GED testing takes place on the third Wednesday and Thursday of each month, excluding December. Preregistration is required. Contact the Assessment Center for information and a registration brochure.

Test Proctoring Site

The Assessment Center is available as a community proctoring site for exams from other colleges and educational programs. Virtual Learning Collaborative (VLC) students may have their tests proctored in the Assessment Center by making prior arrangements. Contact the Assessment Center to schedule test proctoring.

Business and Industry Assessment Services

The Assessment Center offers proficiency testing of groups or individuals for purposes such as pre-employment, determining basic skills, entry level skills or promotional eligibility. A variety of test instruments are available. Businesses are encouraged to visit or call for additional information.

College Libraries

Bradner Library, Livonia Campus
734-462-4440

Radcliff Library Room 355
734-462-4400, ext. 6020

The College libraries support the curricular and personal enrichment needs of Schoolcraft's students, faculty and staff. Bradner Library on the Livonia campus and the Radcliff Library in Garden City house more than 85,000 books; subscribe to more than 700 magazines, many of which are retained for years in micro formats; and offer access to U.S. government-deposited publications. Both libraries provide electronic access to varied resources, including an online catalog of Schoolcraft-owned books. They offer various periodical databases online, some of which are partial or full text, most of which may be searched from home. The libraries also provide access to the World Wide Web for research purposes.

Schoolcraft students, faculty and staff may use and borrow books in both libraries. Community members may inquire about their eligibility to borrow under the statewide MichiCard borrowing program. Librarians are available to assist users in locating books, journal articles, pamphlets, U.S. government publications and Internet-based resources. They also offer library tours and introductions to using the Internet by class request. Contact either library for more information.

During the fall and winter terms, the Bradner and Radcliff library hours are:

BRADNER LIBRARY		RADCLIFF LIBRARY	
Mon.–Thurs.	8 a.m.–9 p.m.	Mon.–Thurs.	8:30 a.m.–9 p.m.
Friday	8 a.m.–4 p.m.	Friday	8:30 a.m.–12:30 p.m. and 5 p.m.–9 p.m.
Saturday	Noon–5 p.m.	Saturday	8:30 a.m.–2 p.m.
Sunday	Noon–5 p.m.	Sunday	Closed

Contact either library for hours of operation during break weeks, holiday periods and spring and summer terms.

College Archives

Bradner Library Room 180
734-462-4400, ext. 5313

The Archives collects, preserves and makes accessible Schoolcraft's historical records and memorabilia. The collections are available to faculty, staff, students and other researchers who wish to study the College's history. Included in the collections are early 1960s documents about the founding of the College, Board of Trustees' minutes, Staff Weekly newsletters and the student newspaper from the Commuter to the Connection, plus many brochures, pamphlets and photographs. The Archives houses the Sam Hudson Collection, which deals with the early history of Plymouth, Michigan. Hours of operation are Monday–Thursday, 11 a.m. to 4:30 p.m. and Friday 9:30 a.m. to 3 p.m., or by e-mail, sconnors@schoolcraft.edu.



Academic Computer Use

McDowell Center Room 100

Radcliff Center Room 415

Computer Lab Hot Line Numbers:

734-462-4400, ext. 5521 for Livonia Campus

734-462-4400, ext. 6012 for Radcliff Center

Schoolcraft College offers its students access to more than 30 computer labs with almost 800 personal computers. We constantly update our software and purchase new hardware in an on-going effort to keep our students equipped with the latest technology.

Schoolcraft College Academic Computing Lab Use Policy states that students:

- Must be enrolled currently at Schoolcraft College and present proper identification when using the computer lab.
- Are restricted to using only the software that is available on the lab computers.
- Must use the computer for Schoolcraft College course assignments only.
- Must follow College policy by strictly adhering to legal use of copyrighted software.
- Must be certified to use the College's computers during open lab hours at the McDowell Center, Room 100, or Radcliff Center.

Certification may be obtained by:

- Successfully completing a computer orientation course.
- Successfully completing a computer course.
- Successfully completing an equivalency test for the computer orientation course, which is available in the LAC—the McDowell Center, Room 210.

For online classes, students must have a working knowledge of computers, and will need a computer with modem and 4-speed CD-ROM; an Internet Service Provider; Windows 98 or higher; professional version of Office 97 or higher; and Netscape 4.76 or higher, or Internet Explorer 5.0 or higher.

For online classes, Windows 98 meets the minimum requirements. Windows XP is recommended. For CIS 120, 180, 215, 225 and OIS 165 and 265, MS Office XP is required.

Women's Resource Center (WRC)

McDowell Center Room 225

734-462-4443

Radcliff Center Room 120

734-462-4400, ext. 6051

The Women's Resource Center at Schoolcraft College provides the atmosphere and support for exploring educational, professional and personal plans for members of the community and campus.

At the McDowell Center location, volunteer peer counselors are available to assist both walk-in and telephone clients. The peer counselors are specially trained to listen to and help clients who wish to:

- Enter or re-enter college.
- Research new career possibilities.
- Find referrals for services or information.
- Talk through a difficult situation.

Appointments are not required. Hours are Monday through Friday from 9 a.m.-4:30 p.m. From August through May, the WRC is open Monday evenings until 7:30 p.m.

The WRC offers many free pamphlets, brochures and articles.



Special WRC Programs and Services

WRC Scholarships

Women's Resource Center scholarships are available to women who may or may not qualify for federal or state financial aid. The WRC works vigorously to ensure scholarship opportunities are available for all women, with a special emphasis on adult women returning to school. Printed information is available.

Special Populations Program

The Special Populations Program, administered by the WRC, provides tuition assistance, support services and/or programs for single parents, displaced homemakers, those with limited English proficiency, those who are academically or economically disadvantaged, individuals with a disability and non-traditional job seekers.

From Chocolate Chips to Micro Chips to Blue Chips (CHIPS): A Program for Women in Transition

The full name of the program is From Chocolate Chips to Micro Chips to Blue Chips, but it is commonly referred to as CHIPS. The program's aim is to take the participant from working inside the home, to working outside the home, to making sound personal financial decisions.

CHIPS has two parts: depending upon your needs, you can complete one or both parts.

The first part is a 15-week, 6-credit program that includes:

HDS 110 Career Decision Making, 2 credits

OIS 100 Keyboarding, 2 credits

CIS 105 Computer Orientation, 1 credit

OIS 195 Time & Project Management, 1 credit

- Assertiveness training.
- Identification of job-related skills.
- Educational counseling.
- Assistance in applying for school-related financial aid.
- Interviewing techniques.
- Support/study group.
- Job placement guidance.
- Physical conditioning.
- Business clothing available from the CHIPS Boutique.

The second part, CHIPS TOO, is a 15-week, 6-credit program that includes:

OIS 165 Microsoft Word for Windows, 3 credits

BUS 204 Personal Finance, 3 credits

- Educational counseling.
- Assistance in applying for school-related financial aid.
- Job placement guidance.
- Business clothing available from the CHIPS Boutique.
- Support/study groups.

Divorce Support Group

A divorce support group is open to anyone contemplating, in the process of, or having difficulty adjusting to divorce. The group meets in the WRC on the second and fourth Tuesday of each month. The first meeting of the month is a group discussion with a facilitator. The second meeting of the month features a speaker. A quarterly schedule of speakers is available.

The first Monday of each month, a financial planner who specializes in divorce matters is available free of charge. On the third Monday of each month, October through May, a lawyer is available for free consultations. Both financial planning and legal consultants are available from 5- 7 p.m. on a first-come, first-served basis.

Luncheon Series

The WRC sponsors and designs six luncheons each year featuring speakers on a variety of topics. Schedules with dates and speakers are available in July and January.



Instructional Support Services

The Doc-U-Center and Media Services combine to form the Instructional Support Services Department, which performs a multitude of enhanced document, media and technical services. While primarily an internal service that supports instructional technology and print materials for the classroom, both areas also support special on- and off-campus events.

Doc-U-Center

Liberal Arts Room 120
734-462-4400, ext. 5304

Instructional and presentation materials, produced by the Doc-U-Center, are created using sophisticated desktop publishing and design software and are printed on high-speed, networked printers and copiers. Copiers are maintained in instructional buildings for convenient access by faculty and staff.

Media Services

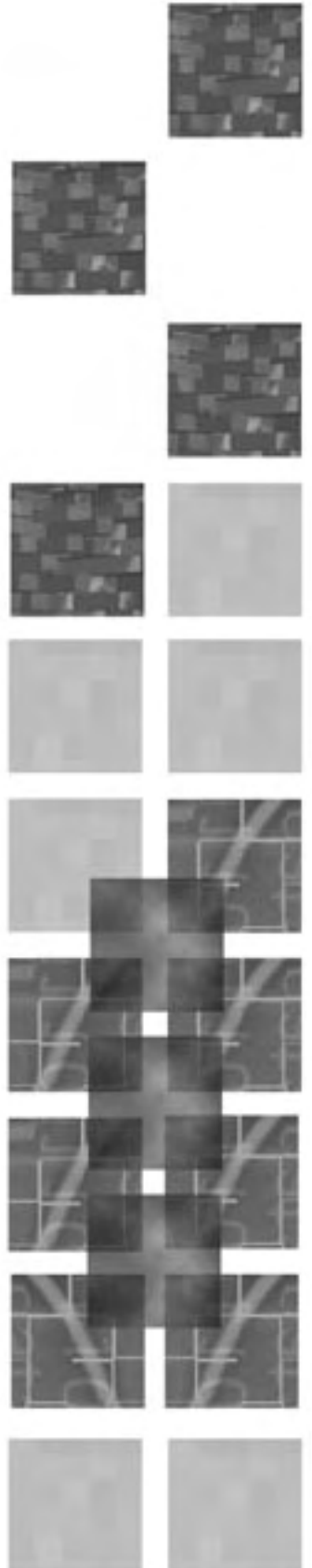
Bradner Library Room 500
734-462-4400, ext. 5330

Instructional technology, available in classrooms, is installed and maintained by Media Services. Media technicians support special presentations requiring media equipment both on and off campus. Multimedia production and format conversions, videoconferencing, the interactive video classroom and multimedia presentation services are available.



Schoolcraft College

Campus Life Services and Activities



Campus Life

Services and Activities

Student Identification

Each semester's tuition payment receipt identifies students as Schoolcraft College students. Students should carry it at all times when attending classes, using the library, computer labs, testing services or attending College-sponsored events. Picture identification cards are available in the Student Activities Office at no charge. Valid identification must be presented to obtain a card. There is a charge to replace a lost ID card.

Food Service

VisTaTech Center, Waterman Wing
Option's Snack Shop at Radcliff Center

Henry's, located along Main Street in the VisTaTech Center, features an array of food and beverage choices to please any student or visitor to campus. A bountiful salad bar, fresh seafood, pasta and pizza are just some of the choices. Several homemade soups are prepared daily, and a wide selection of beverages is available, including freshly ground cappuccino and espresso. Henry's is the place to have breakfast, lunch or dinner while on campus. Hours are Monday–Thursday, 7:30 a.m. until 7:30 p.m., Friday: 7:30 a.m. until 2 p.m.

Options at Radcliff provides service from 8 a.m. until 8:30 p.m. Monday through Thursday and Friday from 8 a.m. until 1 p.m. during the fall and winter semesters. Soups, sandwiches and a wide selection of convenience foods are offered daily. Vending machines are located in every classroom building on campus.

Food Service provides full service catering for any event on campus, from coffee service for small meetings to formal banquet functions. Call 734-462-4471 or fax 734-462-4516 for more information.



Children's Center

South Parking Lot Livonia Campus
734-462-4442

The Schoolcraft College Children's Center is the laboratory for the Child Care and Development Program. It is accredited by the National Association for the Education of Young Children and is under the direction of College faculty and trained teachers. The primary purpose of the Center is to provide learning experiences for students enrolled in the Child Care Development curriculum. The educational program of the Center is designed for children aged 6 weeks through kindergarten and encourages physical, emotional, intellectual and social development through a variety of stimulating teacher-directed and child-selected activities. The Children's Center enrolls infants and toddlers aged 6 weeks through 2½ years on a full-time basis only. The Children's Center generally has a waiting list. Those registering for five full days of care per week get preference.

The Center is open from 7 a.m. to 6 p.m. Monday through Friday and operates year-round. Parents who have questions or wish to place their children on a waiting list for possible admission are invited to call the Center at 734-462-4442.

College Bookstores

Livonia Campus
734-462-4409

Radcliff Campus
734-462-4778

Online Bookstore
www.schoolcraftbooks.com

Schoolcraft College has three bookstores for your convenience. The Livonia Campus Bookstore is located at the northeast end of campus, across from the Applied Science Building. The Radcliff Campus Bookstore is located in the Radcliff Center on the corner of the 100 and 400 halls. The Schoolcraft College Online Bookstore is located at www.schoolcraftbooks.com.

Required textbooks must be purchased at the campus where the class is held. All bookstores offer a wide selection of goods and services of high quality at equitable prices, with particular attention paid to academic requirements.

Health Emergencies

When a student is injured or becomes ill while on campus, contact Public Safety at ext. 4424 from any campus phone. Public Safety will provide the initial response to a call for assistance. If the emergency is of an urgent nature you may also call (9) 911.

Health Insurance

Sickness and accident insurance coverage is available for full- and part-time students. Information on this program is available in both student service offices and from the Finance and Business Services office, all in the McDowell Center.

Access to the Physical Fitness Facility

Physical Education Building
734-462-4400, ext. 5258

The Physical Education Building is used for instruction, special events, intercollegiate athletics and community events. When an area is not being used for a regularly scheduled class or event, students may use the area if they present a Schoolcraft College identification card or tuition receipt to the supervisor or attendant. Open swim and gym hours for current students are posted outside each facility in the building and in the Continuing Education schedule.

Athletics

Schoolcraft College is a member of the National Junior College Athletic Association and the Michigan Community College Athletic Association. The women's intercollegiate program includes cross country, basketball, soccer and volleyball. The men's intercollegiate program includes basketball, golf and soccer. The Athletic Committee reviews general policies relating to the scope of athletic programs.

Student Activities Office

VisTaTech Center, Waterman Wing Room 169
734-462-4422

Schoolcraft College believes out-of-classroom activities are essential to the total collegiate educational experience. Students are encouraged to participate in one or more College extracurricular activities for their intellectual, cultural, social, physical, organizational, spiritual, moral and emotional enrichment and growth.

Student Activities' goals are those of the College itself, namely to provide the finest intellectual experience in a framework that highlights the fullest individual and social growth of each person.

Schoolcraft College provides an office and staff to help students plan and operate organizational programs and services.



Clubs and Organizations

Schoolcraft College encourages students to organize College clubs and other groups that provide developmental experiences for their members, services to the campus and/or the local community and opportunities to interact with a variety of people.

Information and assistance in forming a College student club is available in the Student Activities Office. Campus clubs and organizations at Schoolcraft College are:

- African-American Student Association
- Art Club
- Beekeepers Club
- Campus Crusade for Christ
- Chess Club
- Edgerunners Ski Club
- Gay, Lesbian, Straight Alliance
- Gourmet Club
- Habitat for Humanity
- Health Information Technology Club
- International Student Relations Club
- Music Club
- National Computer Graphics Association
- Otaku Anime Animation Club
- Phi Theta Kappa Honor Society
- Quilting Club
- Student Activities Board
- Students Against Hunger
- Student Nursing Association

Connection—Schoolcraft's Student Newspaper

The Connection serves as a forum for expressing student opinion and a vehicle for reporting College and College-related activities and events from a student perspective. The Connection membership is open to all registered students on the basis of interest and demonstrated competency in writing, photography, layout, advertising, circulation or clerical skills. The Connection is distributed free to the campus community. Additional information and staff application forms are available in the Student Activities Office.

Performing Arts Groups

Schoolcraft College offers performance opportunities in the College choirs and instrumental ensembles, including the Chamber Singers, the Schoolcraft College Jazz Band and Schoolcraft College Community Wind Ensemble. The Schoolcraft College Community Choir meets regularly and performs large choral works. These groups rehearse regularly and perform concerts both on and off campus. Students may elect to participate with or without credit. Extracurricular performing groups are encouraged to use the facilities and equipment at the College.

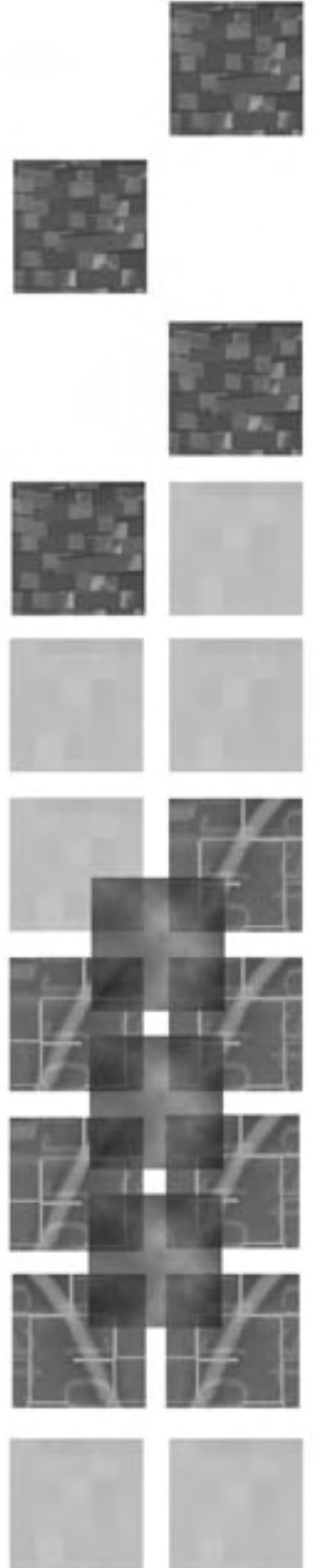
Phi Theta Kappa Honor Society

Phi Theta Kappa is the international honorary scholastic society for community and junior colleges. Founded in 1918, Phi Theta Kappa was recognized officially by the American Association of Junior Colleges in 1929. The Schoolcraft College Omicron Iota Chapter was established in 1966 and became a five-star chapter in 1995. Eligibility information is available in the Student Activities Office in VisTaTech Center, Waterman Wing.



Schoolcraft College

Student Rights and Responsibilities



Student Rights and Responsibilities

Schoolcraft College was established in 1961 by the voters of the College District to make education beyond the high school level available to students interested in, and capable of benefiting from, such an education. The members of the Board of Trustees are the elected representatives of the College District electorate and are charged with making policies to achieve College objectives. Schoolcraft College recognizes its obligation to be responsive to the needs and concerns of the individual student, the student body and the community at large. Schoolcraft College cannot condone or support any action or activity by an individual or group that impinges on the rights of others, whether these individuals are members of the student body or the community at large.

Student Responsibilities

Students should understand that with each right they enjoy comes a corresponding duty and responsibility. No student should take any action that will restrict other individuals from pursuing their educational goals, or that will in any way interfere with the Board of Trustees and its representatives in the performance of their duties and responsibilities. Students are responsible for maintaining satisfactory standards of conduct and/or scholarship. We expect students to familiarize themselves with existing College regulations, including the Student Code of Conduct, and conduct themselves as responsible citizens at all times. Students who fail to conduct themselves in a responsible manner will be subject to disciplinary action as outlined in the Student Code of Conduct that may include suspension and/or dismissal from the College.

Student Rights

Members of the student body enjoy the same rights and privileges guaranteed to them as citizens of the United States and as residents of the State of Michigan. Such basic rights as freedom of speech, freedom of worship, and right of due process are in no way curtailed by existing policies and procedures. As a member of the Schoolcraft College community, a student is free to take advantage of all the educational opportunities available and to participate in all extracurricular activities sponsored by the College.

For each course in which they are enrolled, students are guaranteed a fair and proper evaluation of their academic efforts. Students are free to join any group with which they seek to be associated, to examine and discuss matters of particular interest to them and to support any cause—both on and off campus—that does not disrupt the orderly operation of the College.

Student Privacy Rights

The Family Educational Rights and Privacy Act (FERPA) of 1974 grants all students the right to have their academic records withheld from any individual, agency or organization. Students choosing to release this information may do so by written consent.

According to the statute, if an individual student charges that his or her official records are inaccurate, misleading or otherwise inappropriate, the College must provide that student access to those records and an opportunity for a hearing to challenge those records. Students wishing to review their educational records must file a written request with the Registrar. Records covered by FERPA will be made available within 30 days of the receipt of the request. The right to a review or hearing under the Act does not include any right to challenge the appropriateness of a grade as determined by the instructor. However, students may use this process to verify that the instructor's grade has been properly transmitted to the student's records.

The College is authorized under the Act to release public information concerning students. Public information includes the student's name, address, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, enrollment status, degrees and awards received and the most recent educational agency or institution attended. The College may, at its discretion, release such public information at any time, unless the Registrar has received a prior written objection from the student specifying information that should not be released. The Registrar must receive this written objection from the student no later than 10 working days after classes begin in any semester or session. The Act permits disclosure without consent to College officials with a legitimate educational interest. College officials have a legitimate educational interest if they need to review an educational record to fulfill their designated professional responsibility. The College may designate a third party as a College official for the purpose of certifying enrollment and graduation.

As a part of the College's instructional program improvement efforts, 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 be using student Social Security Numbers to compile certain data for the purpose of instructional program improvement and Perkins and Workforce Investment Act reporting.

General Information

Alcoholic Beverages

No alcoholic beverages are permitted on campus except during approved campus functions. The excessive use of alcohol under any circumstance is not condoned by the College, and undesirable conduct resulting from alcohol use will be subject to disciplinary action.

Canceled Classes

The College reserves the right to cancel any class if its enrollment is low or for other valid reasons. The College may change the day, time of day or class location. Students will be contacted and may select another class or request a full refund. Refund checks are mailed directly to students.

Classroom Conduct

Students are expected to act responsibly and to conduct themselves in the classroom in a manner that does not disrupt the learning process. A climate of mutual respect and courtesy should exist between faculty and students. However, students must recognize that instructors, by virtue of their position, must exert a measure of authority in the classroom. Students should respect this authority. Disciplinary problems may result in a student being withdrawn from class and, in extreme cases, dismissal from the College.

College Closing—Due to Weather or Other Emergencies

Listen to major metro area radio stations and local television stations, and check the link on the College's Web site for College closing information. Weather conditions can vary widely, even over a small geographic area. Students must exercise their own judgment concerning safety, whether the College is open or closed.

Drug-Free Policy

The Federal Drug-Free Schools and Communities Act Amendments of 1989 require all colleges and universities that receive federal funds to develop an illicit drug and alcohol prevention program for students and employees. Consistent with local, state and federal laws, the College will impose sanctions or seek legal remedies against students or employees who unlawfully possess, use or distribute illicit drugs and alcohol on College property or as part of any College activity.

Drugs and Narcotics

Students must observe the drug and narcotic laws of the State of Michigan, as well as federal laws and regulations as they apply to possession, use and sale of these substances. Undesirable student conduct resulting from possession, use or abuse will result in disciplinary action.

Equity in Athletics Disclosure Act (EADA)

The Equity in Athletics Disclosure Act is designed to make prospective students aware of a college's commitments to provide equitable opportunities to its men and women student athletes. A copy of this report is available in the Dean of Student Services Office or on the College's Web site.

Students with Disabilities

Schoolcraft College does not discriminate on the basis of disabilities in recruiting and admitting students, recruiting and employing faculty and staff, or operating any of its programs and activities, as specified by federal laws and regulations. The designated coordinator for College compliance with Section 504 of the Rehabilitation Act of 1973 is the Vice President and Chief Financial Officer, whose office is in the McDowell Center. Students may request services by contacting the Learning Assistance Center in the McDowell Center.

Lost and Found

All lost items should be given to the Public Safety Department on the Main Campus, or to the Central Office in one of the off-campus centers where the items will be recorded and held. For rules on disposition of these articles, see College Policy 1070.12, or call Public Safety at 734-462-4424.

Parking Regulations

Free parking is available in the North, South and Central Parking Lots with the exception of restricted areas which are posted. All parking lots are lined and vehicles are to be parked within the designated spaces. There is no parking on the diagonal yellow line areas on either end of parking rows in any parking lot. All parking is in an east/west direction only. Any vehicle that is parked improperly will be ticketed.

The North, South and Central Lots have areas that are assigned to staff and faculty with permits. Special medical permits are required to park in any handicapped area. No parking is permitted on any College street.

Schoolcraft Public Safety officers are authorized to write City of Livonia traffic citations by authority granted under Title VI, Chapter I, of the Livonia Code. Tickets are payable at the 16th District Court, 15140 Farmington Road, Livonia, Michigan. Information regarding the fines for violations can be obtained by calling the court at 734-466-2500, ext. 3542. Court dates are indicated on the bottom of citations.

Students attending the Radcliff Center in Garden City are provided ample free parking in a paved lot with entrances on Wildwood and Radcliff streets. Handicapped spaces are provided. Parking violations at Radcliff Center will be issued by the Garden City Police Department. Information for payment of fines can be obtained by calling 734-525-8805.

Regulations

Copies of all student regulations are available in the Dean of Student Services Office in the McDowell Center.

Safety—Classroom and Laboratory

Personal safety is a major priority at Schoolcraft College. Safety glasses, headgear, aprons, lab coats, earplugs and other appropriate safety equipment are needed by all students in specific courses. Safety units are incorporated into courses where applicable.

Smoking

A Michigan public act prohibits smoking in all College buildings.

Solicitation of Funds

Individuals and agencies are not permitted to solicit funds, organize or participate in drives for any reason without first securing approval from the Vice President and Chief Financial Officer.

Student Disciplinary Standards Committee

A Student Disciplinary Standards Committee handles all serious breaches of discipline. The committee is appointed by and responsible to the Dean of Student Services and is composed of staff members and students.

Student Financial Obligations

Students must pay all required fees, fines, loans and other financial obligations owed to the College. Students who fail to meet financial obligations may be dismissed from the College, refused permission to register at a future date, or have holds placed on transcripts, grade reports and diplomas.

Students' Right-To-Know and Campus Security Act of 1990

Information on this Act is available in the Public Safety Department, Service Building.

Title IX

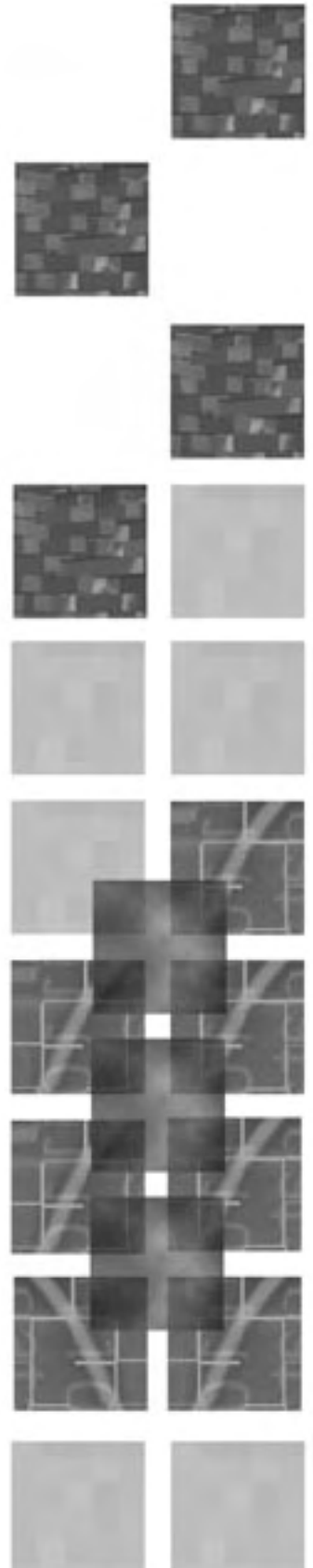
Title IX states: "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance." The Executive Vice President is Schoolcraft's Title IX coordinator. Students who would like further information regarding this act may call 734-462-4431.

Traffic Regulations

Traffic regulations with respect to speed and parking are posted on campus. Students, staff and visitors are required to follow the same traffic rules as on public streets. As a licensed operator of a motor vehicle, it is the driver's responsibility to observe the Michigan Vehicle Code laws as well as local ordinances.



Academic Policies and Procedures



Academic Policies and Procedures

Instructional Alternatives

Schoolcraft College provides students a variety of choices for earning credit aside from the traditional method. In addition to on-campus, in-class instruction, students can register for video courses, online courses, Open Entry/Open Exit courses and other media-assisted instruction. There are classes offered at convenient community locations or on weekends to accommodate student schedules. Qualified students may apply to the Schoolcraft Scholars Honors Program or may earn credit through independent study under the direction of a faculty member.

Distance and Distributed Learning

Distance and distributed learning, which includes courses on videotape or the Internet, offers students a flexible form of education, creating options of where and when they can learn. These classes expand learning opportunities while allowing students to balance educational demands with work, travel or family responsibilities. Students who are admitted to the College can register for distance and distributed learning courses, as they would for any credit course Schoolcraft College offers. They receive regular college credit for these classes. The keys to successful distance and distributed learning are needs, motivation, discipline and effective time management. For more information, call 734-462-4532.

Video courses provide students with professionally produced videotapes, supplemented with a textbook and study guide. The first class is a face-to-face orientation session to acquaint students with overall course requirements, review sessions, testing dates and other important information. Lectures are presented on videotapes which are available from the Library. Distance and distributed learning students study independently, visiting the campus for three or four review sessions and examinations.

Online Courses

Schoolcraft College Online brings a variety of courses to you in various disciplines through the Internet. Online courses require independent, self-motivated learners with a working knowledge of computers and the Internet. Online course work takes place in a virtual environment, including communication and interaction with the faculty member and other students. Regular and active participation in online discussions is required. Text materials accompany each course.

To take an online course, students must own or have convenient access to:

- A PC system with at least 128MB of RAM.
- A 56K or higher modem, DSL or cable modem.
- An Internet Service Provider (ISP) and personal e-mail account.
- A CD-ROM or CD/DVD.
- Internet Explorer 5.0 or higher.
- Windows 98 or higher, and Office 2000 or higher.
- Macintosh equivalents would be:
 - OS 9.1 or higher, and Office 98 for Mac or higher

Note: Some courses require specific software packages, i.e. Microsoft Office XP. Please check the Schedule of Classes for more information.

Online students have the opportunity to attend an orientation session, held on the first Saturday of each semester. Computer Lab mini training sessions in Blackboard are available during orientation for students who may need additional assistance with online procedures.

Some online classes require on-campus exams.

Some online classes require the use of instructional videotapes available for check out at the library.

OMNIBUS

The OMNIBUS program provides working adults the perfect solution to problems they may have with attending traditional classes. OMNIBUS offers a totally online accelerated program granting associate and bachelor's degrees, with an option to complete a master of science in business administration-leadership studies or a master of business administration.

OMNIBUS is designed as computer-mediated learning, with students studying together through e-mail and the Internet, and with appropriate support materials.

Students complete course assignments from home or other locations where they have access to a personal computer.

The mission of the OMNIBUS program is to provide intensive, quality higher education in an innovative, integrated and collaborative format to mature students.

OMNIBUS is a collaboration of Schoolcraft College and Madonna University.

Open Entry/Open Exit Classes

Open Entry/Open Exit classes provide an alternative to traditional classroom learning. OE/OE students have greater control over their learning schedules and can complete a course in a week, a month or a semester. Students attend no regular classes or lectures.

Students can complete these self-paced courses at home, in the College's computer labs, or in the OE/OE lab where instructors are available for help during posted hours. They submit homework via e-mail or by using the designated OE/OE drop-off area. At least one on-campus assessment is required. Students may register for OE/OE classes before the semester starts, or up to the ninth week of the semester. All coursework must be completed by semester's end. All students registering for the OE/OE program must attend a mandatory orientation before beginning coursework. More information is available about the program on the College's Web page or call 734-462-4588.

Independent Learning

The College provides students an opportunity to earn credit for certain courses through independent study. Students are expected to master the competencies the course requires. Students work independently under the direction of the assigned faculty member, and are expected to meet with the faculty member at designated times during the term. Contact the Assistant Dean of Liberal Arts for more information. Students must obtain approval from an instructor to take an independent learning course.

Hybrid Courses

Hybrid courses offer a blend of in-class teaching and online learning. They encourage active, independent study and reduce the amount of time students spend in the classroom.

In a hybrid course, the instructor and students come together for a series of on-campus meetings. How they use the time allotted for these meetings varies from week to week, instructor to instructor, and course to course. Some of that time is devoted to traditional in-class instruction while some is reserved for independent study or group work, including projects outside the classroom. Details on specific courses can be found at www.schoolcraft.edu/hybrid.

Students who successfully complete hybrid courses are typically self-motivated learners who possess a working knowledge of computers and the Internet.

In order to take a hybrid course, students must own or have convenient access to:

- A PC system with at least 128MB of RAM.
- A 56K or higher modem, DSL or cable modem.
- An Internet Service Provider (ISP) and personal e-mail account.
- A CD-ROM or CD/DVD.
- Internet Explorer 5.0 or higher.
- Windows 98 or higher.
- Office 2000 or higher.
- Macintosh equivalents would be:
 - OS 9.1 or higher
 - Office 98 for Mac or higher

For more information: Call 734-462-4525, send an email to hybrid@schoolcraft.edu or access information on the College's Web site at www.schoolcraft.edu/hybrid.

Schoolcraft Scholars

Students accepted into the Schoolcraft Honors Program complete six honors courses and 100 hours of service-learning. Tuition is awarded for all honors courses as long as an honor student maintains a 3.5 grade-point-average.

The first and final honors courses are taken with other honors students: Humanities 190, an honors colloquium, introduces students to community organizations; Sociology 290, a capstone course on social issues, supports the completion of 25-hour service projects. Students earn honors credit in four other courses of their choice by completing honors option projects with members of the Honors Faculty.

While participating in the program, Schoolcraft Scholars attend numerous field trips, lectures and workshops open to the College at large. The honors program accepts applications year-round. Among other requirements, applicants need a graduating high school GPA or 12-hour college GPA of 3.5.



Educational and Community Services

Business Development Center
VisTaTech Center Room 400
734-462-4441/734-462-4438
www.schoolcraft.edu/bdc

The Business Development Center responds to specific needs of workforce training and the business community.

Contract Customized Training

Courses listed in this catalog can be conducted on site or at other convenient locations, 24 hours a day, seven days a week. Formats include: consulting, short customized courses, degree credit courses, workshops, large conferences and teleconferences. Certificates of Achievement, college credits or Continuing Education Units (CEUs) may be awarded.

Companies seeking to upgrade employee skills may be eligible for substantial savings through government subsidized training. Our staff will research opportunities and apply for these funds when available. Typical activities eligible for subsidized training include assistance to companies:

- Locating in the community and creating new jobs.
- Expanding and creating new jobs.
- Retaining employees who would likely be laid off, but who can continue employment if retrained to do another job.
- Installing new machinery, new processes, or manufacturing a new product.

Business Assistance Services

The Procurement Technical Assistance Program provides information and training to businesses interested in exploring government markets. The program includes a daily download or mailing of bid opportunities specific to each company's products or services. In addition, all military specifications and federal standards are available within 24 hours to businesses enrolled in the program.

Our Export Resource Center is available to firms interested in expanding into foreign markets. Introductory workshops in both government contracting and foreign trade are offered on a regular basis.

The Small Business & Technology Development Center (SBTDC) provides assistance in enhancing economic well being by providing counseling, training and research for new ventures, existing small businesses and innovative technology companies. The SBTDC has the capacity to assist with writing business plans, developing growth strategies and building marketing plans. Training programs offered through the Center are focused on the needs of local entrepreneurs and cover a diverse range of topics.

Community Services

Facility Rentals
734-462-4475

Special events such as concerts, conferences, dinners, lectures and recreational activities are scheduled on the Livonia campus or at the Radcliff Center in Garden City as resources permit. Free parking is available at both locations.

College facilities are available for meetings, seminars and banquets for a fee. Because of its accessibility to freeways, Schoolcraft College is a convenient meeting place for many governmental and community groups. The College welcomes these activities and can co-sponsor educational programs to help reduce costs.

Continuing Education Services

Continuing Education Center
734-462-4448

Continuing Education

Everyone benefits from lifelong learning—you, your family, your community and your workplace. Whether you take classes to fulfill personal or professional aspirations, you will have the opportunity to meet and interact with people who have similar goals and experiences. Continuing Education Services (CES) can help you develop new interests and insights in the area of your choice. When you're looking for knowledge but not a degree, look to continuing education.

Your choices include programs that offer:

- Opportunities designed for career-minded individuals in business management and computers.
- Certification and licensure classes designed for professional and technical personnel in fields such as nursing, K–12 teaching and school administration, real estate licensure preparation, culinary arts, equine arts and science.
- Small business management seminars designed to stimulate entrepreneurial leadership and local economic development.
- Personal development workshops, as well as courses and programs designed to enhance the quality of life in the community.
- Retired Senior Volunteer Program (RSVP) designed to give senior adults an opportunity to work on campus with students and staff on a variety of projects.
- Kids on Campus Program, serving nearly 2,000 children annually, designed to provide extensive enrichment programs, academically enhanced activities and physical fitness opportunities for children, aged 5–15 years.
- Wellness and physical fitness programs designed for health-conscious individuals interested in dance, fitness, yoga, tai chi, self-defense, swimming and other recreational activities.

Continuing education classes are open to students of all ages. Instructors are professionals who bring a special expertise to the learning process.

Students receive nationally recognized Continuing Education Units (CEUs), based on attendance and participation, for most continuing education classes. Students in some specialized courses receive Certificates of Accomplishment.

Requests for refunds are to be mailed or faxed to the Registrar's Office and must be initiated by the student.

The College refund policy is as follows:

- Through the day before the first class, 100 percent course fees for most classes. Exceptions are noted.
- Thereafter, no refund.

Refunds are mailed to the student's address of record.



Academic Policies

Attendance Procedures

Regular class attendance is necessary for maximum success in college. Faculty members announce any special attendance requirements during the first class meeting of each semester or session.

- Students are expected to attend all classes except in the event of illness or an unavoidable emergency.
- Students are responsible for arranging all work before attending athletic events, field trips or other College-sponsored events. Written assignments must be turned in to instructors before the event or at a time designated by instructors.
- Students are responsible for meeting all class requirements regardless of absences and/or tardiness from class.
- Students attending Schoolcraft College under special programs may have specific attendance requirements.

Course Auditing

Qualified students may enroll in courses for which they do not desire credit by making application to the College and by paying the same tuition and applicable fees as regularly enrolled students.

The student's intention to audit the course should be made known at the time of registration. A change in audit/credit after the registration period may be authorized through instructor/student consultation and written notification by the instructor to the Registrar. This change must be done before the last day to drop for a withdrawal grade as published by the semester schedule. Any student auditing a class may participate as a regularly enrolled student except that no final grade is issued to the auditor.

Credit Hours

Normally, students receive one hour of credit for each hour required in class per week during a 15-week semester. However, classes with labs, such as art, science, computers and technology, require additional class hours. Credit hours and total weekly course clock hours are listed in the course description section of this catalog.

Course Load — Fall and Winter Semesters

A full-time load is 12 semester credit hours. Students must receive permission from their counselors to elect more than 18 hours. Normally, students eligible for overloads earned a minimum grade-point average of 3.0 in the previous semester at Schoolcraft College. Students must obtain permission from a counselor before the beginning of each semester during which they wish to carry an increased load.

Course Load — Spring and Summer Sessions

The full-time course load in the spring and summer sessions is six semester credit hours. Normally, students eligible for overloads earned a minimum grade-point average of 3.0 in the previous semester at Schoolcraft College. Students must obtain permission from a counselor before the beginning of each session during which they wish to elect more than eight credit hours.

Classification of Students, Credit Classes

- | | |
|---------------------|-----------------------------------------|
| • Freshman | Fewer than 26 credit hours |
| • Sophomore | 26 or more credit hours |
| • Full-time | 12 or more credit hours per semester |
| • Part-time | Fewer than 12 credit hours per semester |
| • Special Student | High school student |
| • Advanced Standing | More than 60 credit hours |

Credit by Examination

Schoolcraft College students may request credit by exam for a specific course by presenting evidence of special course proficiency, experience or education. Students are allowed to take exams only if instructors or department representatives find they are qualified to take the exam. Students are charged a fee, which is assessed by the Cashier's Office, before the examination. Applications are available in associate deans' offices.

Equivalency Credit

Schoolcraft College students may receive equivalency credit toward a certificate or associate degree in these instances:

- Work experience and/or training.
- Related instruction.
- Transfer courses from other colleges and universities.
- The National Occupational Competency Testing Institute (NOCTI).

The College requires a minimum number of credit hours earned at Schoolcraft before the equivalency credit is posted to the student's record.

Advanced Placement

Students may request course credit based on satisfactory test scores taken through the College Board Advanced Placement Program. Students requesting course credit should have their Advanced Placement scores sent to the Registrar's Office as early as possible.

CLEP/DANTES National Credit by Examination Programs

The College Level Examination Program and the DANTES Subject Standardized Tests (DSST) Program offer students the opportunity to obtain college credits based on satisfactory test score completion. Contact the Assessment Center for test registration information.

Student Records

The Registrar's Office maintains official College records for each student. These records are intended for College use and include data directly related to Schoolcraft College students. These records include, but are not limited to, identifying data, academic work completed, attendance data, scores on standardized tests, health data and counselor advising comments. See Student Privacy Rights.

Transcript Request

To forward official grade transcripts to designated colleges, recognized institutions or employers, students must submit a signed request or complete a request form in the Registrar's Office. Only transcripts bearing the Schoolcraft College seal and Registrar's signature are considered official and are not issued directly to students. Any transcript given to a student will be a "student copy." Transcripts are released only after all financial obligations to the College have been fulfilled. There is no charge for transcripts.

Grade Reports

Grade reports are available at www.schoolcraft.edu after the end of the semester. Printed grade reports are available by request. Requests for printed grade reports must be made before the end of the semester. Grade reports for students who have financial and other obligations to the College are not available until all obligations are removed.

Repeated Course

Students may wish to improve a final grade earned by repeating the course at Schoolcraft College. The last grade and credits earned replace any previous grade and credit hours in computing the grade-point average. The earlier record remains a part of the student's transcript and is identified as NC (NO CREDIT–Repeated Course). A grade of W or I will not replace the earlier grade in a repeated course. Transfer credit will not be accepted for a course if the student has earned a grade for that course from Schoolcraft College.

Withdrawal from College or Classes

Courses dropped any time through the end of late registration are not recorded on student transcripts. After late registration, students may withdraw officially from courses through the tenth week of a fall or winter semester, and through the fifth week of the spring/summer sessions. Students who officially withdraw from courses receive a W grade. The W grade is not used in computing the grade-point average. Classes lasting other than 15 weeks have prorated W dates.

Issuance of an Incomplete Grade

An instructor may award an incomplete (I) grade to students who, because of extenuating circumstances, were unable to complete the course work within the regular College semester/session. Students must have successfully completed the majority of the course before the incomplete grade is granted. The responsibility for completing a course rests with the student. A faculty member issuing an incomplete grade (I) must accompany it with the Incomplete Grade form.

Dean's List Recognizing Academic Achievement

Each semester we recognize students for high academic achievement by naming them to the Dean's List. The minimum requirements for fall or winter semester are:

- Full-time students who complete 12 or more credits during the semester with a semester grade-point average of 3.5 or higher. The College sends a letter of recognition to students' homes and notifies hometown newspapers.
- Part-time students, who after completing a total of 12, 24, 36, 48 and 60 credit hours, have earned a cumulative grade-point average of 3.5 or higher. The College sends a letter of recognition to students' homes.

Eligibility for Athletics

Students who participate in varsity athletics must have a grade-point average in keeping with the requirements established by the Schoolcraft College Athletic Committee, the Michigan Community College Athletic Association and the National Junior College Athletic Association. All eligibility requirements are listed in the Schoolcraft College Athletic Manual.

Academic Probation

Students who have completed 15 credit hours and earned cumulative grade-point averages below 2.0 are placed on academic probation. The College records probationary status on student transcripts and grade reports. Students on academic probation must meet with a counselor before registering for any semester or session until academic probation is removed.

Academic probation is removed when the cumulative grade-point average is 2.0 or higher.

Academic Dismissal

Any student on academic probation who fails to earn a grade-point average of 2.0 or higher after completing a total of 30 credit hours will be academically dismissed from the College. The official record (transcript) and grade report reflect this status. A student may appeal the dismissal to the Dean of Instruction.

Grades and Grade Points

The grading system and computing method for grade-point averages are explained below.

Grades	Grade Scale
Excellent Performance	4.0–3.5
Very Good	3.4–3.0
Good	2.9–2.5
Average	2.4–2.0
Below Average	1.9–1.5
Poor	1.4–1.0
Failure	0.0–0.0
W * – Withdrawal	No points
I **– Incomplete	No points
AUDIT *** – No grade or credit awarded	No points
NC – No Credit – repeated course	No points

* See Withdrawal from College or Classes. Observe dates in the current class schedule.

** See Issuance of an Incomplete Grade.

*** Students must request audits when registering for classes.

Note: Individual programs may have special grade requirements.

Grade-point Average

Students can calculate their grade-point average as in this example:

Class Elected	Course Credit Hours	Grade Received	Grade Points Earned
English 101	3	X 2.2 =	6.6
Political Science 105	3	X 3.4 =	10.2
Mathematics 113	4	X 2.1 =	8.4
Chemistry 111	4	X 2.7 =	10.8
Total Credits	14	Total Grade Points	36

Multiply the course credit hours by the grade received to get the grade points earned. Divide the total grade points earned by course credits earned to yield the grade-point average:

$$36 / 14 = 2.57 \text{ grade-point average}$$

A student who transfers from another college and is admitted to Schoolcraft College on academic probation is subject to the above stated academic conditions.

Students receiving financial aid assistance or veteran's benefits must meet the specific academic requirements that determine continuation for these programs.

Readmission for Academically Dismissed Students

Students must petition the Dean of Instruction and meet with the Associate Dean for Academic and Assessment Services for readmission. As a condition of readmission, if petitions are honored, students must follow specific recommendations made by the Dean of Instruction.

Appeals Procedure for Academic Matters

Students may appeal academic decisions regarding a grade or other actions resulting from their academic performance. Step I of the Appeal process must be made within ten (10) working days of the occurrence, or receipt of a grade, and must follow the procedures outlined below:

Step I

Students must seek to resolve academic matters informally with the instructor. During the spring/summer session(s), when an instructor may not be available, students may proceed to Step II after an effort is made to communicate with the instructor.

Step II

Students may formalize complaints by completing a Student Appeal Form, acquired through the appropriate associate dean's office. This form includes:

- The student's name, student number, address, telephone number and times and dates of availability.
- The specific complaint.
- The desired remedy.

The associate dean will review the complaint, investigate the facts and send a written decision to the student within seven (7) working days. If both the student and associate dean agree, the time limit may be extended.

Step III

If the academic issue is not resolved to the student's satisfaction, an appeal may be made to the Dean of Instruction. The appeal must be made in writing, including all information given in Step II, within five (5) working days of receipt of the Step II decision. The Dean of Instruction will hear the complaint, investigate the facts and when possible, convene a hearing of the individuals involved. A written decision will be given within ten (10) working days of the hearing. Certain circumstances may make it impossible to respond within the ten (10) day time limit. If both the student and the Dean of Instruction agree, the time limit may be extended; otherwise a decision will be made on available facts.

Step IV

If the matter is still unresolved, the student must notify the Dean of Student Services in writing, no later than five (5) working days after the Step III decision is rendered. The Dean of Student Services will convene and chair a Hearing Committee within ten (10) working days. The Hearing Committee will have an equal number of faculty, students and administrators. Students have a right to:

- Hear all statements made about the situation and examine relevant materials, as long as such examination does not violate the Family Rights and Privacy Act or other laws and policies.
- Question any person or material presented.
- Present their own cases including supporting material or testimony.
- Have an advisor or legal counsel present (who will not speak for the student).
- Tape record the hearing or otherwise make a record of the proceedings.

The Dean of Student Services will complete the process with a final written decision to the student no later than ten (10) working days after the hearing.

If, after Step IV, the student is unsatisfied, he/she may appeal directly to the Board of Trustees in writing within ten (10) days of receiving the Step IV response. A letter must be written to the Board indicating the student's name, address, telephone number, the complaint and exactly what remedy is desired from the Board. This hearing will occur at the next available meeting of the Board. The Board will render a decision to the student in writing within thirty-five (35) days (the Board meets monthly). The decision of the Board marks the end of the internal judicial process.

Expedited Process

Occasionally a situation arises which requires more immediate action. Examples include deadlines such as graduation dates, external testing dates, transfers to other institutions or employment opportunities. The student may request, in writing, an Expedited Process, and if the Dean of Student Services concurs, the following steps will be taken:

Step I

Students must seek to resolve academic matters informally with their instructor. During the spring/summer session(s), when an instructor may not be available, students may proceed to Step II after an effort is made to communicate with the instructor.

Step II

Students may submit a formal Student Appeal Form, acquired in the appropriate associate dean's office, to the Dean of Student Services. The form includes:

- The student's name, student number, address, telephone number and times and dates of availability.
- The specific complaint.
- The desired remedy.

Both the Dean of Instruction and the Dean of Student Services will confer with all necessary parties in an attempt to resolve the issue. Should the complaint still not be resolved, the Dean of Student Services will convene a meeting consisting of an equal number of faculty, students and administrators. The rules of the hearing will be the same as those expressed in Step IV. Both sides of the dispute will be heard. The decision will be reviewed* and forwarded to the student within ten (10) working days of the hearing. This decision marks the end of the internal judicial process.

* A review is conducted by the President and/or designee and may involve legal counsel.

Graduation Requirements

Degree Requirements

Schoolcraft College believes that having certain fundamental skills will enable students to learn and perform more successfully in future personal, educational, occupational and social endeavors. In each curriculum, the College requires general education courses in English, the humanities, the biological and physical sciences and the social sciences, which broaden a student's intellectual and cultural background.

In keeping with this philosophy, all entering students working toward an associate degree at Schoolcraft College must complete courses that fulfill the College's associate degree Core Skills Assessment Program (General Education Goals). The Core Skills ensure that Schoolcraft College graduates have basic competence in communication, creative and critical thinking and interpersonal skills.

Associate Degree Requirements

To earn an associate degree, students must:

- Earn an overall grade-point average of 2.0 or better.
- Complete a minimum of 60 earned credit hours, with the exception of some career programs that require more than 60 credit hours.

In addition:

- The last 15 credit hours must be earned at Schoolcraft or a minimum of 50 credit hours earned at Schoolcraft. Exceptions may be considered by the Dean of Instruction.
- Students must complete the associate degree Core Skills Assessment Program (General Education Goals) required for their associate degree.
- During their last semester, students must file the Intent to Graduate form before the published deadline date. (Please review a current Schedule of Classes for dates.) The College Registrar will verify all requests to determine compliance with course requirements, Core Skills Assessment Program and validity of course waivers, if applicable.

Multiple Degree Requirements

Students earning additional degrees must earn a minimum of 15 additional credit hours at Schoolcraft College beyond the completion of their last degree for each new degree desired.

Certificates of Program Completion

Schoolcraft College awards two types of certificates. The pre-associate certificate is generally awarded before earning an associate degree. The post-associate certificate is awarded after receiving an associate degree. Both certificate programs are career rather than transfer oriented.

Pre-Associate Certificates

A pre-associate certificate is awarded upon satisfactory completion of a program of study with a minimum 2.0 grade-point average. Pre-associate certificates do not require completing Core Skills. The courses for many pre-associate certificates are in the companion associate degree program.

Students who plan to earn an associate degree in a program area with a certificate option may consider earning both.



Post-Associate Certificates

Post-associate certificates are awarded by completing 15 or more credits within the certificate program at Schoolcraft College with a minimum 2.0 grade-point average. A student may enter the post-associate program after earning an associate degree from Schoolcraft or another college. The courses within the post-associate certificate are designed to provide higher level specialized training in job-related skills.

Graduation Procedures

When applying for graduation, students must:

- Complete degree requirements from the current catalog (year of graduation).

OR

- Complete degree requirements from the catalog in effect the year a student first entered Schoolcraft College, or a subsequent catalog, provided that either selection is within the past six years. Students who have attended the College for five years or longer may be required to demonstrate skill in their fields before being approved as candidates for graduation.

OR

- Students who have not attended credit classes for three consecutive calendar years must follow the College catalog in effect when they return or a catalog subsequent to their return provided that either selection is within the past six years.

Any changes in these requirements must be approved in writing by the appropriate instructional administrator.

Intent to Graduate

Students who plan to earn an associate degree or a certificate of program completion must complete an Intent to Graduate form with a counselor before the published deadline date in the semester or session during which they will complete degree requirements. Once the Intent to Graduate form is completed with a counselor, the form is delivered to the Registrar's Office by the student.

Commencement—Graduation

The commencement ceremony is held each year at the end of the winter semester, usually in May. The College encourages students earning associate degrees or certificates of program completion to participate in commencement ceremonies. Students completing their program requirements the following spring or summer session are qualified to participate, but must submit an Application to Attend Commencement form to the Registrar's Office.



Associate Degree Core Skills (previously General Education Goals)

Schoolcraft College is committed to the belief that a sound education has its foundation in general education. Through general education, students gain an opportunity to acquire the knowledge, skills and attitudes fundamental to attaining a more satisfying life, which contribute to future personal, occupational, academic and civic success.

The College requires candidates for all associate degrees to demonstrate basic competency in three Core Skills areas: communication, critical and creative thinking and interpersonal skills. Students are required to follow a program of study for course selections.

General Education courses outlined in programs of study were selected to provide initial learning experiences for these Core Skills areas. As students progress through all other courses, additional opportunities to develop and demonstrate proficiency in Core Skills applications occur.

Annually, a random sampling of students' work will be reviewed using established standards at the institutional level to provide assurance that students are able to demonstrate competency in the three core areas. This review will provide the College with an opportunity to assess its effectiveness in preparing students in the defined Core Skills.

A Schoolcraft College graduate with an associate degree should be able to demonstrate competency in the following Core Skills areas:

Communication Skills

The ability to write and speak in a clear, organized, complete and appropriate fashion with well supported statements that are free from mechanical errors. The ability to accurately understand, analyze and interpret what is read and heard.

Critical and Creative Thinking Skills

The ability to accurately identify and solve problems using the appropriate applications, principles and technologies to arrive at a correct or effective and efficient solution, and to formulate original ideas and concepts.

Interpersonal Skills

An ability to work within a community through effective, efficient, ethical and collaborative conduct geared to timely delivery of an outcome.

Students will be required to select courses identified under each Core Skills area to assist them in demonstrating competency in the Core Skills areas. **Note:** some courses fulfill two Core Skills sections.



Communication Skills

Communication Skills, Section 1

(Goal 2, Writing)

Select one combination of courses

English 100 & 106

Biomedical Engineering Technologist, Computer Aided Design: Tool/Mechanical, Child Care-Development/Special Needs Paraprofessional/Family Support, Computer Assisted Manufacturing, Culinary Arts, Electronic Technology, Manufacturing for Quality Production and Metallurgy and Materials Science majors only.

English 101 & 106

Accounting, Business-General, Child Care-Development/Special Needs Paraprofessional/Family Support, Marketing and Applied Management, Office Administration and Small Business Management majors only.

English 107

Broadcast Communications majors only

English 100 & 116

Correctional Science, Cosmetology Management, Criminal Justice/Criminal Justice with Academy, Environmental Technology and Fire Technology/Fire Technology with Academy majors only.

English 101 & 102

Communication Skills, Section 2

(Goal 3, Speaking and Listening)

Select one or a combination of courses

Communications 103

English 100

Engineering 100

French 101 & French 102

Medical Assisting 180

Medical Assisting majors only

Nursing 122

Nursing majors only

Spanish 101 & Spanish 102

Critical and Creative Thinking Skills

Critical & Creative Thinking Skills, Section 1

(Goal 1, Math)

Select one course

Accounting 103 <i>Culinary Arts majors only</i>	Mathematics 105 <i>Elementary Education majors only</i>
Accounting 201	Mathematics 111
Accounting 202	Mathematics 113
Business 105	Nursing 116 <i>Nursing majors only</i>
Electronics 128 <i>Biomedical Engineering Technologist and Electronic Technology majors only</i>	

Critical & Creative Thinking Skills, Section 2

(Goal 4, Reasoning)

Select one course

Biology 101	Geology 133
Chemistry 111	Nursing 120 <i>Nursing majors only</i>
Collegiate Skills 101	Philosophy 243
Collegiate Skills 130 <i>Nursing majors only</i>	Philosophy 247
Criminal Justice 211 <i>Correctional Science majors only</i>	Physics 104
Electronics 127 <i>Electronic Technology majors only</i>	Physics 123
English 205	Physics 181
English 206	Political Science 105

Critical & Creative Thinking Skills, Section 3

(Goal 5, Computer and Information Technology)

Select one course

Allied Health Education 101	Computer Service 126 <i>Biomedical Engineering Technologist and Electronic Technology majors only</i>
Computer Aided Design 103	
Computer Graphics Technology 123	Culinary Arts 243 <i>Culinary Arts majors only</i>
Computer Graphics Technology 125	Office Information Systems 100
Computer Information Systems 105	Office Information Systems 165
Computer Information Systems 115	Music 171
Computer Information Systems 120	
Computer Information Systems 129	

Critical & Creative Thinking Skills, Section 4

(Goal 6, Science)

Select one course

Biology 101	Electronics 119
Biology 104	Electronics 127 <i>Electronic Technology and Biomedical Engineering Technologist majors only</i>
Biology 105	Emergency Medical Technology 107 <i>Emergency Medical Technology and Fire Technology majors only</i>
Business 217 <i>Culinary Arts, Business-General and Marketing Applied Management and Small Business Management majors only</i>	Fire 200
Chemistry 111	Geography 105
Computer Information Systems 250 <i>Computer Information Systems majors only</i>	Geography 130
Computer Service 126 <i>Manufacturing Majors only</i>	Geography 212
Criminal Justice 201 <i>Correctional Science and Criminal Justice majors only</i>	Geology 133
Criminal Justice 209 <i>Criminal Justice majors only</i>	Metallurgy 102
	Metallurgy 280
	Physics 104
	Physics 123
	Physics 181

Interpersonal Skills

Interpersonal Skills, Section 1

(Goal 7, The Individual)

Select one course

Biology 103	Physical Education 121
Biology 105	Physical Education 202
Biology 115	Psychology 153
Human Development Services 110	Psychology 201

Interpersonal Skills, Section 2

(Goal 8, Arts and Humanities)

Select one course

Art 105	Humanities 106
Art 106	Humanities 210
Art 113	Music 102
Art 115	Music 105
Art 116	Music 121
Art 201	Music 131
Business 122 <i>Business-General and Marketing and Applied Management majors only</i>	Music 133
Culinary Arts 295 <i>Culinary Arts majors only</i>	Music 141
English 200	Music 149
English 243	Music 164
English 244	Music 165
English 245	Theatre 120
English 246	Theatre 207
English 248	Theatre 208

Interpersonal Skills, Section 3

(Goal 9, Social Institutions)

Select one course or any two of the listed history courses

Anthropology 112	History 141
Anthropology 201	History 151
Biology 104	History 152
Economics 103	History 153
Economics 201	History 230
Geography 212	Political Science 105
	Psychology 153
	Psychology 201
	Sociology 201

Interpersonal Skills, Section 4

(Goal 10, International Perspectives and Diversity)

Select one course

Anthropology 201	Geography 130
Art 115	Geography 236
Art 116	History 134
Art 201	History 137
Computer Graphics Technology 151	History 138
Economics 201	Humanities 106
English 243	Music 105
English 244	Philosophy 243
English 245	Sociology 201
English 246	Spanish 101
French 101	Spanish 102
French 102	

Associate Degrees

Associate Degree candidates must satisfy the specific degree requirements listed below, including completion of the Schoolcraft College Core Skills (General Education Goals).

ASSOCIATE IN ARTS (AA)

The Associate in Arts degree is for students who plan to transfer to a senior institution. The Associate in Arts degree is appropriate for most transfer programs leading to a baccalaureate degree.

1. English 101 and 102 required—6 credit hours.
2. Humanities—8 credit hours.
Art, Foreign Language, History, Literature, Music Appreciation, Music Literature or Music Theory, Philosophy, Communication Arts, Theatre or Humanities.
3. Sciences—8 credit hours (one course must be a laboratory course). Biology, Chemistry, Physical Geography, Geology, Mathematics, Physics.
4. Social Sciences—8 credit hours.
Anthropology, Economics, World Regional Geography, History, Political Science, Psychology or Sociology.
5. General Electives—30 credit hours.
Electives must be chosen from transferable 100 or 200 level courses.
6. All courses that apply to this degree must be at the 100 or 200 level.
7. Complete all Schoolcraft College Core Skills (General Education) requirements.

ASSOCIATE IN APPLIED SCIENCE (AAS)

The Associate in Applied Science degree is for students who plan to seek career-oriented employment upon completion of a career program. To explore transferability options, it is recommended that students meet with a counselor.

1. English—6 credit hours required by individual curriculum.
2. Completion of one of the career programs listed in the Schoolcraft College catalog.
3. All courses that apply to this degree must be at the 100 or 200 level.
4. Complete all Schoolcraft College Core Skills (General Education) requirements.

ASSOCIATE IN ENGINEERING (AE)

The Associate in Engineering degree is for students who plan to pursue a baccalaureate degree in engineering.

1. English 101 and 102 required—6 credit hours.
2. Humanities—6 credit hours.
Art, Foreign Language, History, Literature, Music Appreciation, Music Literature or Music Theory, Philosophy, Communication Arts, Theatre or Humanities.
3. Sciences—34 credit hours.
Chemistry 111 required.
Physics 211 and 212 required.
Math 150, 151, 240 and 252 required.
4. Social Sciences—7 credit hours.
Economics 201 required.
5. Additional classes to satisfy all Schoolcraft College Core Skills requirements and transfer institutions. 7–15 credit hours.
6. All courses that apply to this degree must be at the 100 or 200 level.

ASSOCIATE IN SCIENCE (AS)

The Associate in Science degree is for students who plan to pursue a baccalaureate degree in a science field.

1. English 101 and 102 required—6 credit hours.
2. Humanities—8 credit hours.
Art, Foreign Language, History, Literature, Music Appreciation, Music Literature or Music Theory, Philosophy, Communication Arts, Theatre and Humanities.
3. Sciences—20 credit hours (one course must be a laboratory course). Biology, Chemistry, Physical Geography, Geology, Mathematics, Physics or Conservation.
4. Social Sciences—8 credit hours.
Anthropology, Economics, World Geography, World Regional Geography, History, Political Science, Psychology or Sociology.
5. General Electives—18 credit hours. Electives must be chosen from transferable 100 or 200 level courses.
6. All courses that apply to this degree must be at the 100 or 200 level.
7. Complete all Schoolcraft College Core Skills (General Education) requirements.

ASSOCIATE IN GENERAL STUDIES (AGS)

The Associate in General Studies degree is for students who wish to earn an associate degree that may transfer to a senior institution through an individualized program of study.

1. English 101 and 102 required—6 credit hours.
2. Humanities—8 credit hours.
Art, Foreign Language, History, Literature, Music Appreciation, Music Literature or Music Theory, Philosophy, Communication Arts, Theatre or Humanities.
3. Sciences—8 credit hours (one course must be a laboratory course). Biology, Chemistry, Physical Geography, Geology, Mathematics, Physics.
4. Social Sciences—8 credit hours.
Anthropology, Economics, World Regional Geography, History, Political Science, Psychology or Sociology.
5. General Electives—30 credit hours. Electives must be chosen from 100 or 200 level courses.
6. All courses that apply to this degree must be at the 100 or 200 level.
7. Complete all Schoolcraft College Core Skills (General Education) requirements.

OR

1. English 101 and 102 required—6 credit hours.
2. Any two of the following for a total of 24 credit hours:
Humanities—12 credit hours required.
Sciences—12 credit hours required.
Social Sciences—12 credit hours required.
3. General Electives—30 credit hours. Electives must be chosen from 100 or 200 level courses.
4. All courses that apply to this degree must be at the 100 or 200 level.
5. Complete all Schoolcraft College Core Skills (General Education) requirements.

Substitution — Waiver

Students may wish to substitute one course for another, or have a course waived. Students who choose to use this procedure should see a counselor to discuss available options and initiate the process.

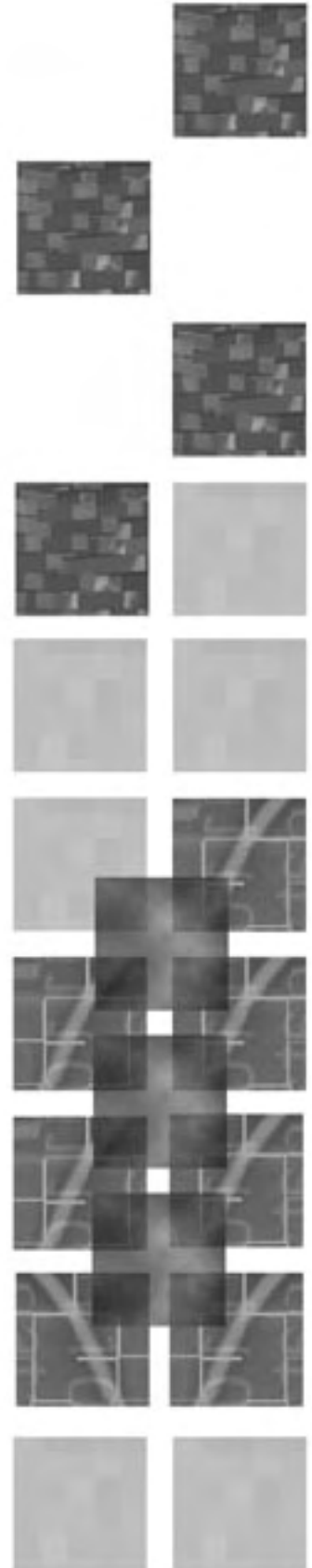
Change of Curriculum or Program

A change in a program of study (curriculum) must be recorded on a data form available in the Registrar's Office in the McDowell Center.



Schoolcraft College

Academic Programs



Academic Programs

There are many opportunities to earn college credit at Schoolcraft College. Students may choose to pursue an associate degree that will transfer to a senior institution, obtain transfer credit toward a four-year degree, earn an associate degree in a career-related area or obtain a certificate that can be applied toward a degree program while preparing for employment. Whatever students choose to study, it is recommended that they plan the program with a Schoolcraft College counselor.

Programs of study fall into two major categories:

Transfer and career.

- **Transfer programs** are designed to prepare students who plan to transfer to four-year colleges and universities after completing their coursework at Schoolcraft College.
- **Career programs** are designed to prepare students for entry into a specific job-related field, for advancement in a current job or for making a career change. Many career courses and programs will transfer to other colleges and universities. **See a Schoolcraft College counselor for additional information.**

Transfer Programs

Many students who come to Schoolcraft College plan to transfer to a university to earn a bachelor's degree before entering the job market. During the first two years, transfer students complete general education courses including English, mathematics, science, social science, and humanities, in addition to courses related to their specific program of study. Generally, universities accept 60 credit hours toward the bachelor's degree. Some universities will accept more than 60 credits. See a Schoolcraft College counselor for details.

The College works closely with four-year universities to provide current transfer information for a smooth transition from Schoolcraft College to a student's chosen university. Because each institution has different requirements, it is important that students planning to transfer follow this transfer checklist:

- Identify the four-year university of choice as early as possible.
- Work with a Schoolcraft College counselor to keep current with transfer issues, to satisfy your associate degree requirements and to ensure transferability of courses.
- Inquire about the MACRAO Agreement. See MACRAO Articulation Agreement. Visit the Member Services area at www.macrao.org.
- Meet with representatives from Michigan's four-year universities at Schoolcraft. Visitation dates and scholarship information are listed on the College cable television network, posted in the Counseling Center, on the transfer bulletin boards throughout campus and appear on Schoolcraft's marquee.
- Follow the transfer guide, prepared by the four-year university, which lists course requirements for your specific transfer program. See the Senior Colleges Agreement list for additional information.
- Apply to the four-year university of your choice in a timely manner. Transfer applications are available in the Counseling Center.
- Discover how your academic grades can transform into financial gain. Inquire about transfer scholarships in the Counseling Center.
- Attend transfer events.

The following transfer programs are offered at Schoolcraft College:

List of Transfer Programs

Business Related

- Accounting
- Advertising
- Business Administration
- Computer Science
- Hotel Management

Education

- Elementary
- Secondary
- Special

Engineering

- Chemical
- Civil
- Computer Systems
- Electrical
- Environmental
- Industrial
- Materials Science
- Mechanical

Health Related

- Pre-Dental Hygiene
- Pre-Dentistry
- Pre-Medicine
- Pre-Mortuary Science
- Pre-Nursing
- Pre-Occupational Therapy
- Pre-Optometry
- Pre-Pharmacy
- Pre-Physical Therapy
- Pre-Veterinary

Liberal Arts

- Anthropology
- Art
- Biology
- Chemistry
- Communications
- Conservation
- Criminal Justice
- Economics
- English
- Foreign Language
- Geography
- Geology
- History
- Mathematics
- Music
- Philosophy
- Physics
- Political Science
- Psychology
- Public Administration
- Social Work
- Sociology
- Statistics
- Theatre

AGREEMENTS WITH SENIOR INSTITUTIONS

Schoolcraft has numerous agreements with senior colleges and universities. Most of the agreements are in the form of transfer guides, course equivalencies or formal articulation agreements that provide specific course transfer information in a variety of majors. Following these agreements allows students to make a seamless transition to senior institutions. Schoolcraft College counselors will help students interpret these agreements.

Transfer agreements are available from the following:

Private

Cleary University
College for Creative Studies
Concordia University
Davenport University
Franklin University
Kettering University
Lawrence Tech. University
Madonna University
Marygrove College
Northwood University
Siena Heights University
Specs Howard
University of Detroit Mercy
William Tyndale College
Walsh College

State

Central Michigan University
Eastern Michigan University
Ferris State University
Grand Valley State University
Michigan State University
Michigan Technological University
Northern Michigan University
Oakland University
University of Michigan-Ann Arbor
University of Michigan-Dearborn
University of Michigan-Flint
Wayne State University
Western Michigan University

MACRAO ARTICULATION AGREEMENT

The Michigan Association of Collegiate Registrars and Admissions Officers (MACRAO) Articulation Agreement was established to improve the process of transferring course work between two-year and four-year colleges in Michigan. Schoolcraft College participates in this agreement with the following four-year institutions:

Adrian College*	Madonna University*
Albion College	Marygrove College
Baker College	Michigan State University*
Calvin College*	Michigan Tech. University*
Central Michigan University	Northern Michigan University*
Cleary University*	Northwood University
Concordia University*	Oakland University*
Davenport University	Olivet College
Eastern Michigan University*	Rochester College
Ferris State University*	Saginaw Valley State University*
Finlandia University*	Siena Heights University*
Grand Valley State University	Spring Arbor University
Lake Superior State University*	Western Michigan University
Lawrence Tech. University*	

The MACRAO Agreement ensures that any student who is accepted as a transfer student by one of the colleges listed, has satisfied the basic general education requirements of that four-

year institution. Students must complete the distribution of course work listed below:

- English Composition (ENG 101 & 102)..... 6 credit hours
- Humanities..... 8 credit hours
- Social Science..... 8 credit hours
- Science (must include one laboratory course)..... 8 credit hours

Courses in the humanities, social sciences and sciences must be selected from more than one discipline.

Schoolcraft College requires that students earn a grade of 2.0 for any class that is used to meet the MACRAO Agreement. Transcripts of Associate in Arts or Associate in Science degree graduates who qualify will automatically be stamped “MACRAO Agreement Satisfied.”

Students meeting the MACRAO Agreement but not receiving an associate of arts or science degree must request from the Registrar’s Office that transcripts be stamped “MACRAO Agreement Satisfied.”

- * These four-year colleges have attached special conditions (provisos) to their agreements. These provisos are available from the four-year colleges’ Admissions Departments. Usually these conditions can be satisfied after transferring to the four-year college.

CAREER PROGRAMS

Schoolcraft College’s career programs are based on both students’ interests and community employment needs. They prepare students to enter challenging specialized careers after two years of college or less. Instructors emphasize job specific knowledge,

and students can pursue most of these programs full- or part-time. Many of the courses in these programs will transfer to other colleges and universities. For additional transfer information, students should visit the Counseling Center and meet with a counselor.

List of Career Programs

Business Certificate

Accounting
Basic Business
Computer Information Systems
Network Specialist—NetPrep
Web Specialist
Office Specialist

Business Associate Degree

Accounting
Computer Information Systems—
Microcomputer Support Technician
Computer Information Systems—
Programming
Computer Information Systems—
Web Specialist
Cosmetology Management
General Business
Marketing and Applied Management
Office Administration
Small Business Management

Communications Arts Associate Degree

Broadcast Communications

Health Certificate

Coding Specialist
Medical Assisting¹
Medical Transcription¹
Nursing—Licensed Practical¹

Allied Health Associate Degree

Health Information Technology¹
Nursing—Registered¹

Public Service Certificate

Child Care and Development
Child Care—Family Support
Child Care—Special Needs Paraprofessional
Child Development Associate
Emergency Medical Technology
Firefighter Technology

Public Service Associate Degree

Child Care and Development
Child Care—Family Support
Child Care—Special Needs Paraprofessional
Correctional Science
Criminal Justice
Criminal Justice with Academy
Emergency Medical Technology
Fire Technology
Fire Technology with Academy

Technology Certificate

Computer Aided Drafting—
ElectroMechanical
Computer Aided Drafting—Technical
Computer Graphics Technology—Foundation
Computer Graphics Technology
Computer Service Technician
Culinary Arts¹
Culinary Baking and Pastry Arts
Electronics Service
Energy Specialist
Laser Technology
Metallurgy—Applied Physical

Music—Foundations
Music—Intermediate
Music—Recording Technology
Piano Teacher
Welding—Fabrication

Technology Associate Degree

Biomedical Engineering Technologist
Computer Assisted Manufacturing
Computer Aided Design—
Mechanical Design
Computer Aided Design—Tool Design
Computer Graphics Technology
Culinary Arts¹
Electronics Technology
Environmental Technology
Manufacturing for Quality Production
Metallurgy and Materials Science
Music—Recording Technology

Post-Associate Certificate¹

Biomedical Applications
Computer Graphics Technology
Computer Information Systems
Culinary Arts—Brigade Advanced Skills
Culinary Management
Metallurgy—Materials Science

¹ Students must be officially admitted to these programs prior to selecting any core/major courses. Call the Office of Admissions, 734-462-4426, for more information.

ACCOUNTING

ACCOUNTING (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00005)

The Accounting Program is designed to familiarize students with the work and challenges facing accountants. The program provides specialized and effective training for those planning to seek a career in accounting.

An accountant compiles and analyzes business records and prepares financial reports. An accountant may specialize in auditing, tax accounting, cost accounting, budget and control or system and procedures.

Students who satisfactorily complete the Accounting curriculum and all Core Skills requirements (previously General Education Goals) qualify for the Associate in Applied Science Degree.

Curriculum Core Courses

ACCT 201	Principles of Accounting (Goal #1)	4
ACCT 202	Principles of Accounting	4
ACCT 221	Intermediate Accounting	4
ACCT 222	Intermediate Accounting	4
ACCT 226	Cost Accounting	4
ACCT 238	Federal Tax Accounting	4
ACCT 260	Computer Based Accounting	3
or		
ACCT 261	Computerized Accounting	3
or		
ACCT 263	Computerized Accounting for Small Business	3
ACCT 262	Payroll Accounting—Manual to Computerized	3
or		
BUS 101	Introduction to Business	3
or		
ECON 202	Principles of Economics	4
BUS 207	Business Law	3
CIS 180	Spreadsheet Applications—Current Software	3
		36-37

Core Skills

(Previously General Education Goals)

ENG 101	English Composition (Goal #2)	3
ENG 106	Business English (Goal #2)	3
COMA 103	Fundamentals of Speech (Goal #3)	3
CIS 120	Software Applications for the Microcomputer (Goal #5)	3
ECON 201	Principles of Economics (Goal #10)	4
POLS 105	Survey of American Government (Goal # 4 & #9)	3
PSYCH 153	Human Relations (Goal #7 & #9)	3
or		
PSYCH 201	General Psychology (Goal #7 & #9)	4
ELECTIVE	Goal #6 Course	3-4
ELECTIVE	Goal #8 Course	1-3
		26-30

PROGRAM TOTAL 62-67 CREDITS

The above program meets all Core Skills requirements (previously General Education Goals).

ACCOUNTING (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00001)

The Accounting Program is designed to familiarize students with the work and the challenges facing accountants. This certificate program prepares you for a job as an entry-level bookkeeper for an accounting department or firm.

Students who satisfactorily complete an accounting certificate curriculum qualify for a Certificate of Program completion.

Curriculum Core Courses

ACCT 201	Principles of Accounting	4
ACCT 202	Principles of Accounting	4
ACCT 238	Federal Tax Accounting	4
ACCT 260	Computer Based Accounting	3
or		
ACCT 261	Computerized Accounting	3
or		
ACCT 263	Computerized Accounting for Small Business	3
ACCT 262	Payroll Accounting—Manual to Computerized	3
BUS 101	Introduction to Business	3
or		
PSYCH 153	Human Relations	3
BUS 207	Business Law	3
CIS 120	Software Applications for the Microcomputer	3
COMA 103	Fundamentals of Speech	3
ENG 101	English Composition	3

PROGRAM TOTAL 33 CREDITS



ACCOUNTING TRANSFER PROGRAM

(Schoolcraft program code # AA.00500)

The Accounting Transfer Program is a two-year associate degree program designed for students who wish to transfer to institutions offering a bachelor's degree in areas such as Financial, Managerial, Cost, or Tax Accounting.

Students who satisfactorily complete the Accounting transfer curriculum and the Core Skills requirements (previously General Education Goals) qualify for an Associate in Arts Degree.

FIRST YEAR**Fall Semester**

ACCT 201	Principles of Accounting.....	4
BUS 101	Introduction to Business.....	3
ENG 101*	(Minimum Requirement).....	3
ELECTIVE	History Course.....	3-4
		13-14

Winter Semester

ACCT 202	Principles of Accounting.....	4
CIS 115	Introduction to Computer Based Systems.....	3
ENG 102	English Composition.....	3
MATH 113	Intermediate Algebra for College Students.....	4
		14

Spring/Summer Session

COMA 103	Fundamentals of Speech.....	3
PSYCH 153	Human Relations.....	3
		6

SECOND YEAR**Fall Semester**

ACCT 221	Intermediate Accounting.....	4
BIOL 101	General Biology.....	4
or		
GEOL 133	Physical Geology.....	4
ECON 201	Principles of Economics.....	4
ELECTIVE	Goal #8 Course.....	3
		15

Winter Semester

ACCT 222	Intermediate Accounting.....	4
BUS 207	Business Law.....	3
ECON 202	Principles of Economics.....	4
POLS 105	Survey of American Government.....	3
		14

PROGRAM TOTAL 62-63 CREDITS

* Placement in appropriate English course is based on student's placement test score.

Note: Slight variations in required courses may exist depending on the transfer institution. It is in the student's best interest to consult a counselor or check the Transfer Guides in the Counseling Department for specific requirements.

The above program meets all Core Skills requirements (previously General Education Goals).

BIOMEDICAL ENGINEERING TECHNOLOGY**BIOMEDICAL ENGINEERING TECHNOLOGIST (ASSOCIATE DEGREE)**

(Schoolcraft program code # AAS.00128)

The Biomedical Engineering Technologist Program is designed to develop technicians able to maintain and service medical electronic equipment in hospitals, pathological and hematological laboratories, and industries engaged in the manufacture and sale of medical electronic equipment.

Students should be prepared to spend two additional semesters in the required two internships. After successfully completing the first two semesters, students are qualified to take the first internship course, BMET 254. At the conclusion of the semester, students will return to campus to continue studies. After completing an additional semester, students may take the second internship course, BMET 255. Failure to complete an internship is cause for student termination from the program.

Students must meet with the BMET Internship Coordinator to enroll in BMET 254 and BMET 255 to be eligible to fulfill program requirements.

Students who satisfactorily complete the Biomedical Engineering Technologist curriculum and all Core Skills requirements (previously General Education Goals) qualify for an Associate in Applied Science Degree.

Curriculum Core Courses

BMET 116	Biomedical Instrumentation Terminology and Safety.....	3
	Transducers.....	4
BMET 204		
BMET 254	Biomedical Equipment Internship 1.....	3
BMET 255	Biomedical Equipment Internship 2.....	3
CIS 171	NetPrep Introduction to Networking.....	3
COMPS 126	Technical Programming (Goal #5).....	3
COMPS 147	Computer and Peripheral Maintenance and Management.....	4
ELECT 127	DC Circuits and Mathematical Modeling.....	5
ELECT 128	AC Circuits and Mathematical Modeling (Goal #1).....	5
ELECT 129	Diodes and Transistors.....	3
ELECT 134	Introduction to Microcontrollers.....	3
ELECT 206	Operational Amplifiers and Linear Integrated Circuits.....	4
ELECT 226	Digital Logic Circuits.....	4
ELECT 229	Electronics Troubleshooting.....	3
		50

Core Skill Courses**(Previously General Education Goals)**

BIOL 105	Elementary Human Anatomy and Physiology 1 (Goal #6 & #7).....	4
ENG 100	Communication Skills (Goal #2 & #3).....	3
ENG 106	Business English (Goal #2).....	3
HUM 106	Introduction to Art and Music (Goal #8 & #10).....	1
POLS 105	Survey of American Government (Goal #4).....	3
PSYCH 153	Human Relations (Goal #9).....	3
		17

PROGRAM TOTAL 67 CREDITS

The above program meets all Core Skills requirements (previously General Education Goals).

BIOMEDICAL APPLICATIONS (POST-ASSOCIATE CERTIFICATE)

(Schoolcraft program code # PAC.00178)

This post-associate certificate in Biomedical Applications is designed to provide working professionals who have experience and/or training in the Biomedical Engineering field opportunities to study some closely related materials being integrated into the medical technology field.

Completion of this program will enhance a professional’s ability to meet the current and future changing technologies related to the biomedical field. These courses are also intended to meet requirements for current and future professional certification.

Prior to admission to this program, students must have already completed a minimum of an accredited Associate Degree in Applied Science. The post-associate certificate is awarded upon successful completion of 15 credit hours (exact number may vary slightly due to credit value or content of course).

**BIOMEDICAL APPLICATIONS
CERTIFICATE REQUIREMENTS**

CIS 235	Introduction to Microcomputer Operations	3
CIS 271	NetPrep Local Area Networks	3
CIS 272	NetPrep Wide Area Networks.....	3
CIS 273	NetPrep TCP/IP and Network Architectures.....	3
LASR 232	Laser Systems and Applications 1	4

Completion of a minimum of 15 credit hours is essential.

Courses can be taken through independent study.

Students may choose an applicable 200-level elective.



BROADCAST COMMUNICATIONS

BROADCAST COMMUNICATIONS (ASSOCIATE DEGREE)

(Schoolcraft program code # AA.00041)

Students who complete the Associate in Arts Degree with a major in Broadcast Communications and fulfill all Core Skills requirements (previously General Education Goals) will have developed the skills necessary to function as entry-level employees in radio, television, cable television or industrial television settings. The sixty-hour program is articulated with the Specs Howard School (SHS) of Broadcast Arts, Inc. located in Southfield, Michigan. Fifteen hours of credit are awarded for completion of the thirty-week SHS Certificate Program and the remaining forty-five semester hours of credit are taken at Schoolcraft. The program can begin at either school.

Note: Tuition at the Specs Howard School is higher than at Schoolcraft College.

TYPICAL PROGRAM SCHEDULE

SPECS HOWARD SCHOOL

Fall Semester

Vocal Technique	1.5
Broadcast Concept	1.5
Broadcast Writing	1.5
Interpersonal Communication Development	0.5
Workshop	1.5
	6.5

SPECS HOWARD SCHOOL

Winter Semester

Technical Competency	0.5
Studio Class	2.0
WLDN Air Shift	1.0
WLDN News Shift.....	2.0
Television Production I, II, III, IV, V	3.0
	8.5

SCHOOLCRAFT COLLEGE

FIRST YEAR

Fall Semester

ENG 101	English Composition.....	3
COMA 103	Fundamentals of Speech	3
BUS 101	Introduction to Business	3
POLS 105	Survey of American Government	3
ELECTIVE	Goal #1 Course	4
		16

Winter Semester

ENG 107	Introduction to Journalism	3
PSYCH 201	General Psychology	4
COMA 201	Discussion	3
GEOG 130	Physical Geography	4
CIS 105	Computer Orientation	1
		15

SECOND YEAR

Fall Semester

THEA 241	Oral Interpretation of Literature.....	3
THEA 208	Acting 1.....	3
SOC 201	Principles of Sociology	3
GEOG 133	Physical Geology	4
ELECTIVE	.....	1-3
		14-16

PROGRAM TOTAL 60-62 CREDITS

The above program meets all Core Skills requirements (previously General Education Goals).

BUSINESS—GENERAL

BUSINESS-GENERAL (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00008)

The General Business Program is intended to provide students with a balanced curriculum composed of liberal arts, general business, and technical skills that provide a unified awareness of the activities and operational setting of a business. The program is intended to lay a foundation for a variety of entry-level positions in business that may ultimately lead to specialized study in some area of management training.

Students who satisfactorily complete the General Business curriculum and all Core Skills requirements (previously General Education Goals) qualify for an Associate in Applied Science Degree.

FIRST YEAR

Fall Semester

BUS 101	Introduction to Business	3
BUS 105	Business Math (Goal #1)	3
BUS 122	Advertising (Goal #8)	3
CIS 120	Software Applications for the Microcomputer (Goal #5)	3
ENG 101*	English Composition (Goal #2)	3
		15

Winter Semester

BUS 120	Principles of Salesmanship	3
ACCT 103 or ACCT 201	Introduction to Accounting	4
ENG 106	Business English (Goal #2)	3
POLS 105	Survey of American Government (Goal #4)	3
PSYCH 153 or PSYCH 201	Human Relations (Goal #7 & #9)	3
	General Psychology (Goal #7 & #9)	4
		16-17

SECOND YEAR

Fall Semester

BUS 217	Business Management (Goal #6)	3
BUS 220	Supervision	3
ENG 116	Technical Writing	3
ECON 103 or ECON 201	Introductory Economics (Goal #9)	3
	Principles of Economics (Goal #9 & #10)	4
ELECTIVE**	.....	3
		15-16

Winter Semester

BUS 207	Business Law	3
BUS 226	Principles of Marketing	3
COMA 103	Fundamentals of Speech (Goal #3)	3
HIST 230	U.S. Business History (Goal #9)	3
ELECTIVE**	.....	3
		15

PROGRAM TOTAL 61-63 CREDITS

* Placement in the appropriate English course is based on students' placement test scores.

** Suggested electives: BUS 161, 162, 204, 205, 208, 230 or CIS 215.

The above program meets all Core Skills requirements (previously General Education Goals).

BUSINESS-BASIC (ONE-YEAR CERTIFICATE)

(Schoolcraft program code #1YC.00002)

The Basic Business Program introduces students to accounting, economics and the basics of business. It also develops students' basic skills in keyboarding and computer operations.

Students who satisfactorily complete a business certificate curriculum qualify for a Certificate of Program completion.

Fall Semester

BUS 101	Introduction to Business	3
ACCT 103 or ACCT 201	Introduction to Accounting	4
OIS 100	Principles of Accounting	4
ENG 100 or ENG 101	Keyboarding 1	2
	Communication Skills	3
ENG 101	English Composition	3
PSYCH 153	Human Relations	3
		15

Winter Semester

BUS 217	Business Management	3
ECON 103 or ECON 201	Introductory Economics	3
ENG 106	Principles of Economics	4
COMA 103	Business English	3
CIS 120	Fundamentals of Speech	3
	Software Applications for the Microcomputer	3
		15-16

Spring Session

BUS 105	Business Math	3
		3

PROGRAM TOTAL 33-34 CREDITS

BUSINESS—OMNIBUS

OMNIBUS (ASSOCIATE DEGREE)

(Schoolcraft program code # AA.00500)

OMNIBUS (Online Multi-Degrees in Business) is a collaboration between Schoolcraft College and Madonna University that overcomes the time and place constraints presented by traditional on-campus classes. In this intense online program, students earn two degrees in just three years, with the Choice of two master's degree programs in the fourth year.

OMNIBUS is different from other Schoolcraft programs in that:

- Tuition rate is guaranteed for the entire bachelor's degree program.
- A student's time-to-degree is shortened by one full year.
- A cohort of students proceeds through the program together.
- Academic years are divided into four terms that are shorter than traditional 15-week semesters.
- In some terms students take both Schoolcraft and Madonna courses.

FIRST YEAR

Schoolcraft College and Madonna University

Term 1	Sept 18-Nov 27 2004	SC	MU
CIS 120	Software App MS Office XP.....	3	
ENG 101	English Composition.....	3	
MATH 053	Beginning Algebra.....*		6

* credits not included in degree

Term 2	Jan 3-Mar 11 2005	SC	MU
BIOL 115	Nutrition.....	3	
ENG 102	English Composition.....	3	
MATH 113	Intermediate Algebra.....	4	10

Term 3	Mar 21-May 27 2005	SC	MU
ART 201	Art Appreciation.....	3	
MATH 128	Precalculus without Trigonometry.....	4	
PSYCH 153	Human Relations.....	3	10

Term 4	June 13-August 21 2005	SC	MU
COMA 103	Fundamentals of Speech.....	3	
GEOG 133	World Regional Geography.....	4	
MATH 2300	Business Calculus.....		4
		7	4
TOTAL CREDITS FOR YEAR		33	4
			37

SECOND YEAR

Schoolcraft College and Madonna University

Term 1	Sept 17-Nov 27 2005	SC	MU
BUS 201	Business Statistics.....	3	
ECON 201	Principles of Economics.....	4	
POLS 105	Survey of American Government.....	3	10

Term 2	Jan 3-March 10 2006	SC	MU
BUS 226	Principles of Marketing.....	3	
ECON 202	Principles of Economics.....	4	
INB 3140	International Business*.....		3
		7	3

Term 3	Mar 18-May 26 2006	SC	MU
BUS 207	Business Law.....	3	
BUS 4740	General Topic Seminar.....		1
HUM 215	Humanities through the Arts.....	3	
PHIL 243	Introduction to Philosophy.....	3	9
			1

Term 4	June 12-August 20 2006	SC	MU
BUS 217	Business Management.....	3	
MGT 3160	Human Behavior and Leadership*.....		2
PHYS 104	Introduction to Astronomy.....	4	
RST 4110	Medical Ethics*.....		3
		7	5
TOTAL CREDITS FOR YEAR		33	9
			42

Associate of Arts Awarded (66 credits Schoolcraft)

THIRD YEAR

Madonna University*

Term 1	Sept 16-Nov 26 2006	SC	MU
ACC 2010	Principles of Accounting I.....	3	
FIN 3700	Life Cycle Financial Planning.....	3	
MGT 3100	Strategic Human Resource Planning.....	3	
RST 4150	Philosophy of Religion.....	3	12

Term 2	Jan 2-March 9 2007	SC	MU
ACC 2020	Principles of Accounting II.....	3	
MGT 3270	Human Resource Training & Development... ..	3	
MKT 3680	Marketing Communications.....	3	
MKT 4730	Research Seminar.....	3	12

Term 3	March 17-May 25 2007	SC	MU
ACC 3130	Internal Financial Analysis.....	3	
BUS 4740	General Topic Seminar.....	1	
ENG 4210	Time and Literature.....	4	
QS 3550	Applied Business Statistics.....	3	11

Term 4	June 11-August 19 2007	SC	MU
BUS 3950	Business & Society.....	3	
CIS 3300	Info Systems for Decision Making.....	3	
FIN 3150	Business Finance.....	3	
MGT 4950	Business Policy.....	3	12
TOTAL CREDITS FOR YEAR			47 ug. cr.

B. S. Awarded (60 undergraduate credits at Madonna)

FOURTH YEAR - M.S.B.A./Optional

Madonna University*

Term 1	Semester Beginning 09/07	SC	MU
CIS 5580	Info. Systems for Managers.....		2
MGT 5220	Issues in Leadership Studies.....		1
MGT 5300	Leadership Behavior in Organizations.....		3
MGT 5550	Ethical Considerations in Ldrshp.....		2
			8

Term 2	Semster Beginning 01/08	SC	MU
MGT 5400	Org. Effectiveness & Change Mgmt.....		3
MGT 5470	Ideas in Lead. Devel. & Literature.....		2
MGT 5570	Strateg. Mgmt.: A Leader's Perspec.....		3
Total			8

Term 3	Semester Beginning 05/08	SC	MU
ACC 5250	Managerial Accounting for Decision Making.....		3
MGT 6740	Leadership Seminar.....		1
QS 6430	Managerial Research Design.....		3
			7

Term 4	Semester Beginning 09/08	SC	MU
ECN 6300	Managerial Perspect. On Economics.....		2
MGT 6840	Project Research Study.....		2
MKT 6210	Leadership in Marketing Mgmt.....		3
			7

TOTAL CREDITS FOR YEAR			30 grad. cr.
-------------------------------	--	--	---------------------

M.S.B.A. Awarded (30 graduate credits at Madonna)

FOURTH YEAR (& FIFTH) - M.B.A./Optional

Madonna University*

Term 1	Semester Beginning 09/07	SC	MU
CIS 5580	Info. Systems for Managers.....		2
MGT 5550	Ethical Considerations in Ldrshp.....		2
MGT 6300	Organizational Theory/Behavior.....		3
QOM 6150	Total Quality Management.....		3
Total			10

Term 2	Semster beginning 01/08	SC	MU
ECN 6100	Managerial Economics.....		2
INB 6080	Perspect. in International Business.....		2
MKT 5790	Marketing Strategy.....		3
			7(10)

Term 3	Semester Beginning 05/08	SC	MU
ACC 5250	Managerial Accounting for Decision Making.....		3
QS 6450	Addressing Business Problems with Research.....		3
			6(9)

Term 4	Semester Beginning 09/08	SC	MU
BL 6040	Legal Issues in Business.....		2
FIN 5650	Business Finance.....		3
MGT 6950	Strateg. Mgmt. of Business Policy.....		3
			8(11)

*Plus the CONCENTRATION AREA: Select nine (9) s.h. from Madonna's graduate course listing. TOTAL GR. CREDITS 40

M.B.A. Awarded (40 graduate credits at Madonna)

* Madonna University course descriptions are not included in this catalog.

CHILD AND FAMILY SERVICES

CHILD CARE AND DEVELOPMENT (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00020)

To work effectively with children, child care workers must be sensitive to and understand the developmental stages of children. This curriculum contains theoretical and practical experiences to prepare students to work in child care centers, licensed child care homes, nursery schools and federally funded programs such as Headstart.

Practicum experiences in the college Children's Center will expose students to sound child caring techniques in a supportive atmosphere. Off-campus placements at local facilities will also be used to provide additional and varied opportunities for experience.

Students will meet criteria established by the State of Michigan to direct a child care facility.

The Associate in Applied Science Degree is awarded upon successful completion of the curriculum and all Core Skills requirements (previously General Education Goals).

FIRST YEAR

Fall Semester

CCD 116	Child Development	3
CCD 118	Infant and Toddler Care	3
CCD 101	Preschool Child Care	3
ENG 100	Communication Skills.....	3
or		
ENG 101	English Composition.....	3
PSYCH 153	Human Relations.....	3
or		
PSYCH 201	General Psychology	4
		15-16

Winter Semester

CCD 150	Child Care Practicum 1	3
CCD 115	School Age Child Care	3
CCD 216	The Child With Special Needs	3
ENG 106	Business English	3
or		
ENG 102	English Composition.....	3
ELECTIVE	Goal #6 Course	3-4
		15-16

Spring Session

CCD 126	Creative Activities.....	3
CCD 170	Behavior Management	3
		6

SECOND YEAR

Fall Semester

CCD 200	Child Care Practicum 2	3
CCD 211	Children and Youth in Groups	3
CCD 100	Introduction to Child Welfare Services.....	3
ELECTIVE	Goal #1 Course	3-4
PE 121	First Aid and Personal Safety.....	2
ELECTIVE	Goal #5 Course	1-3
		15-18

Winter Semester

CCD 121	The Adolescent.....	3
CCD 214	Operation and Maintenance of a Child Care Facility.....	3
COMA 103	Fundamentals of Speech	3
ELECTIVE	Goal #4 Course	3
ELECTIVE	Goal #8 & Goal #10 Course.....	1-4
		13-16

PROGRAM TOTAL 64-72 CREDITS

The above program meets all Core Skills requirements (previously General Education Goals).

CHILD CARE AND DEVELOPMENT (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00031)

The Child Care and Development Certificate Program provides an educational foundation for understanding children's development and children's needs. The program emphasizes helping students acquire the knowledge and skills needed to plan developmentally appropriate learning environments, nurturing strategies and activities for children which promote their physical, intellectual, social and emotional growth and well being. Students who satisfactorily complete the Child Care and Development requirements qualify for a certificate of program completion.

Fall Semester

CCD 116	Child Development	3
CCD 118	Infant and Toddler Care	3
CCD 101	Preschool Child Care	3
CCD 150	Child Care Practicum 1	3
CCD 216	The Child With Special Needs.....	3
		15

Winter Semester

CCD 100	Introduction to Child Welfare Services.....	3
CCD 126	Creative Activities.....	3
CCD 211	Children and Youth in Groups	3
CCD 214	Operation and Maintenance of a Child Care Facility	3
CCD 200	Child Care Practicum 2	3
		15

Spring Session

CCD 170	Behavior Management	3
PE 121	First Aid and Personal Safety.....	2
		5

PROGRAM TOTAL 35 CREDITS

The Children's Center at Schoolcraft College is accredited by the National Association for the Education of Young Children (NAEYC—the foremost authority in the care of children, birth through age eight). The accreditation we earned is held by only three percent of centers in Michigan and seven percent of centers in the United States.

For more information about accreditation please contact:

National Association for the Education of Young Children
(NAEYC)
1509 16th Street N.W.
Washington, DC 20036
1-800-424-2460
www.naeyc.org



CHILD CARE—SPECIAL NEEDS PARAPROFESSIONAL (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00021)

Working with children and adults with disabilities requires sensitivity to individual needs and an ability to help identify and develop the strengths of each individual. This curriculum contains theoretical and practical experience designed to prepare students to work in public school special education classrooms, inclusive classrooms and resource rooms, institutional settings, sheltered workshops, job coach programs, group homes, or supported-living programs. Students learn to work effectively as members of professional special needs teams. Students who successfully complete the program will meet the requirements of the State Department of Education for Instructional Assistants.

The Associate in Applied Science Degree is awarded upon successful completion of the curriculum and all Core Skills requirements (previously General Education Goals).

FIRST YEAR

Fall Semester

CCD 116	Child Development	3
CCD 216	The Child With Special Needs	3
CCD 105	Introduction to Developmental Disabilities	3
ENG 100	Communication Skills	3
or		
ENG 101	English Composition	3
PSYCH 153	Human Relations	3
or		
PSYCH 201	General Psychology	4
		15-16

Winter Semester

CCD 150	Child Care Practicum 1	3
CCD 215	Methods and Curricula for Persons with Developmental Disabilities	3
CCD 130	Learning Disabilities	3
ENG 106	Business English	3
or		
ENG 102	English Composition	3
ELECTIVE	Goal #6 Course	3-4
		15-16

Spring Session

CCD 126	Creative Activities	3
CCD 170	Behavior Management	3
		6

SECOND YEAR

Fall Semester

CCD 140	Emotional Impairment	3
CCD 211	Children and Youth in Groups	3
CCD 200	Child Care Practicum 2	3
ELECTIVE	Goal #1 Course	3-4
PE 121	First Aid and Personal Safety	2
ELECTIVE	Goal #5 Course	1-3
		13-18

Winter Semester

CCD 113	Special Education Programs and Supported Community Living	3
CCD 100	Introduction to Child Welfare Services	3
or		
CCD 101	Preschool Child Care	3
or		
CCD 115	School Age Child Care	3
COMA 103	Fundamentals of Speech	3
ELECTIVE	Goal #4 Course	3
ELECTIVE	Goal #8 & Goal #10 Course	1-4
		13-16

PROGRAM TOTAL 64-72 CREDITS

The above program meets all Core Skills requirements (previously General Education Goals)

CHILD CARE—SPECIAL NEEDS PARAPROFESSIONAL (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00032)

The Child Care–Special Needs Paraprofessional Certificate Program provides an educational foundation for understanding normal human development and the special needs of individuals who have mental, physical and/or emotional disabilities. The program emphasizes helping students develop the sensitivity and skills to identify and promote the potential of each individual regardless of handicapping condition.

Students who satisfactorily complete the Child Care—Special Needs Paraprofessional requirements qualify for a certificate of program completion.

Fall Semester

CCD 116	Child Development	3
CCD 216	The Child With Special Needs	3
CCD 105	Introduction to Developmental Disabilities	3
CCD 150	Child Care Practicum 1	3
CCD 140	Emotional Impairment	3
		15

Winter Semester

CCD 215	Methods and Curricula for Persons with Developmental Disabilities	3
CCD 130	Learning Disabilities	3
CCD 113	Special Education Programs and Supported Community Living	3
CCD 211	Children and Youth in Groups	3
CCD 200	Child Care Practicum 2	3
		15

Spring Session

CCD 170	Behavior Management	3
PE 121	First Aid and Personal Safety	2
		5

PROGRAM TOTAL 35 CREDITS

CHILD DEVELOPMENT ASSOCIATE (CDA) (CERTIFICATE PROGRAM)

(Schoolcraft program code # 1YC.00034)

The Child Development Associate (CDA) Program represents a national effort to credential qualified caregivers who work with children from birth to age five. At Schoolcraft College, CDA preparation consists of meeting the objectives and requirements of eight courses in the Child Care and Development curriculum that address the Competency Goals in 13 Functional Areas identified by the CDA Professional Preparation Program. Candidates must also document 480 hours of experience working with children within the past five years, prepare a professional resource file, and be formally observed working with children.*

The following are the required courses necessary to meet CDA competencies.

CCD 116	Child Development	3
CCD 118	Infant and Toddler Care	3
CCD 101	Preschool Child Care	3
CCD 100	Introduction to Child Welfare Services	3
CCD 150	Child Care Practicum 1	3
CCD 170	Behavior Management	3
CCD 126	Creative Activities	3
CCD 214	Operation and Maintenance of a Child Care Facility	3
CCD 155	CDA Assessment Preparation	1

PROGRAM TOTAL 25 CREDITS

* Upon successful completion of the required courses, students earn a Schoolcraft College certificate. To earn the CDA, candidates may then apply to the Council for Early Childhood Professional Recognition. The Council charges an application fee, assigns a representative to assess the candidate and awards this national credential.

**CHILD CARE—FAMILY SUPPORT
(ASSOCIATE DEGREE)**

(Schoolcraft program code #AAS.00243)

The Family Support Associate Degree offers training in current best practice and principles in family support. The approach empowers families by identifying and nurturing families’ strengths, by connecting families to community resources and by helping parents become advocates for their families. Students will be prepared to work with a variety of health, education and human service agencies. Students will gain a broad range of knowledge and skills that include:

- 1) Understanding the empowerment and family support approach to family development.
- 2) Developing communication skills.
- 3) Establishing and maintaining a mutually respectful relationship with families.
- 4) Helping families assess their strengths and needs.
- 5) Building communities of support.
- 6) Increasing sensitivity to and appreciation of many cultures.

The Associate in Applied Science Degree is awarded upon successful completion of the Child Care—Family Support curriculum and all Core Skills requirements (previously General Education Goals)

**FIRST YEAR
Fall Semester**

CCD 180	Introduction to Family Support.....	3
CCD 116	Child Development	3
CCD 100	Introduction to Child Welfare Services.....	3
SOC 201	Principles of Sociology	3
ENG 100	Communication Skills (Goal #2).....	3
or		
ENG 101	English Composition.....	3
		15

Winter Semester

CCD 185	Empowering Families	3
SOC 209	Marriage and Family.....	3
CCD 216	The Child With Special Needs.....	3
ENG 106	Business English (Goal #2).....	3
or		
ENG 102	English Composition.....	3
COMA 103	Fundamentals of Speech (Goal #3).....	3
		15

Spring Session

ELECTIVE*	CCD	3
ELECTIVE	Goal #5 Course	1-3
		4-6

**SECOND YEAR
Fall Semester**

SOC 205	Social Problems	3
CCD 211	Children and Youth in Groups	3
ELECTIVE	Goal #1 Course	3-4
PSYCH 153	Human Relations (Goals #7 & #9).....	3
ANTH 201	Cultural Anthropology (Goal #10).....	3
		15-16

Winter Semester

CCD 202	Family Support Practicum	3
SOC 220	Urban Sociology	3
ELECTIVE	Goal #4 Course	3
ELECTIVE	Goal #6 Course	3-4
ELECTIVE	Goal #8 Course	1-4
		13-17

PROGRAM TOTAL 62-69 CREDITS

* Suggested electives: CCD 101, 115, 118, 121.

The above program meets all Core Skills requirements (previously General Education Goals).



**CHILD CARE—FAMILY SUPPORT
(ONE-YEAR CERTIFICATE)**

(Schoolcraft program code #1YC.00143)

The Family Support Certificate Program provides an educational foundation for understanding current best practice and principles in family support. The program emphasizes the identification of families’ strengths and becoming familiar with and linking families to community resources.

Students who satisfactorily complete the Child Care—Family support requirements qualify for a certificate of program completion.

Fall Semester

CCD 180	Introduction to Family Support.....	3
CCD 100	Introduction to Child Welfare Services.....	3
SOC 201	Principles of Sociology	3
CCD 116	Child Development	3
SOC 209	Marriage and Family.....	3
		15

Winter Semester

CCD 185	Empowering Families	3
SOC 205	Social Problems	3
SOC 220	Urban Sociology	3
CCD 216	The Child With Special Needs.....	3
CCD 211	Children and Youth in Groups	3
		15

Spring Session

CCD 202	Family Support Practicum	3
---------	--------------------------------	---

PROGRAM TOTAL 33 CREDITS

COMPUTER AIDED DESIGN—ASSOCIATE DEGREE PROGRAMS

CAD—MECHANICAL

(Schoolcraft program code # AAS.00170)

As technology capability shifts from two dimensional drafting to three dimensional modeling, the training of technicians will need to change with it. In addition to understanding the basic principles of dimensioning and drafting, future designers will need to be trained in understanding the complete product development process and how computers have connected them. The skills needed by Tool Designers have grown to include how to import and manipulate 3D models and how to inter-

CAD—TOOL DESIGN

(Schoolcraft program code # AAS.00140)

face with simulation and machining programs. Mechanical Designers need to be trained in creating, editing, linking and distributing data files which represent the product information while understanding the processes necessary to create and distribute the product. The Associate in Applied Science Degree is awarded upon successful completion of the Computer Aided Design curriculum and all Core Skills requirements (previously General Education Goals).

CURRICULUM CORE COURSES

Dept.	Course No.	Course Title	Credits
CAD	103	Engineering Graphics (Goal #5).....	3
CAD	105	Mechanical Engineering Drawing	4
CAD	107	Detailing.....	4
DRFG	114	Descriptive Geometry	3
CAD	201	I-DEAS Level 1	4
DSGN	180	Machine Elements and Design.....	4
DSGN	240	Tool and Die Design	4
DSGN	260	Jig and Fixture Design	4
MATH	119	Trigonometry.....	3
MET	102	Introduction to Materials Science (Goal #6).....	3
MET	114	Engineering Materials.....	3
MFG	102	Manufacturing Processes	3
CAM	102	Introduction to Computer Numerical Control (CNC).....	3

CREDITS 45

CORE SKILLS COURSES

(Previously General Education Goals)

Dept.	Course No.	Course Title	Credits
ENG	100*	Communications (Goal #2 & Goal #3).....	3
ENG	106*	Business English	3
HUM	106*	Introduction to Art and Music (Goal #8 & #10)	1
MATH	113	Intermediate Algebra for College Students (Goal #1)	4
POLS	105*	Survey of American Government (Goals #4 & #9)	3
PSYCH	153*	Human Relations (Goals #7 & #9).....	3

CREDITS 17

* Other courses meeting the Core Skills (previously General Education Goals) may be substituted.

CAD—MECHANICAL

Majors will take a Science Elective from the following list:

Dept.	Course No.	Course Title	Credits
PHYS	123*	Applied Physics.....	5
ELECT	127	DC Circuits and Mathematical Modeling.....	5
ELECT	135	Fluid Power	4
CHEM	111	General Chemistry	4
LASR	103*	Laser Concepts.....	4

4-5

PROGRAM TOTAL CREDITS 66-67

* Or higher level course

The above program meets all Core Skills requirements (previously General Education Goals).

CAD—TOOL DESIGN

Majors will take:

Dept.	Course No.	Course Title	Credits
ELECT	135	Fluid Power	4

PROGRAM TOTAL CREDITS 66

The above program meets all Core Skills requirements (previously General Education Goals).

COMPUTER AIDED DRAFTING (CAD)

CAD-DRAFTING—ELECTROMECHANICAL (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00118)

Through this series of specialized courses students will develop saleable skills in Computer Aided Electromechanical Drafting. Students may select, at any time, to work towards an Associate Degree in Computer Aided Design.

Students who satisfactorily complete the Drafting Electro-Mechanical Certificate curriculum qualify for a certificate of program completion.

FIRST YEAR Fall Semester

CAD 103	Engineering Graphics.....	3
ELECT 135	Fluid Power.....	4
ELECT 127	DC Circuits and Mathematical Modeling.....	5
MATH 113	Intermediate Algebra for College Students.....	4
		16

Winter Semester

CAD 105	Mechanical Engineering Drawing.....	4
DSGN 113	Industrial Schematics With Animation.....	3
ELECT 128	AC Circuits and Mathematical Modeling.....	5
		12

Spring Session

CAD 107	Detailing.....	4
		4

PROGRAM TOTAL 32 CREDITS

CAD-DRAFTING—TECHNICAL (ONE-YEAR CERTIFICATE)

(Schoolcraft program code #1YC.00119)

Skills offered in these courses prepare the student for employment as a CAD drafter or detailer. Students at any time may transfer into the CAD Associate Degree Program.

Students who satisfactorily complete the CAD-Drafting—Technical Certificate Program curriculum qualify for a certificate of program completion.

FIRST YEAR

Fall Semester

CAD 103	Engineering Graphics.....	3
MFG 102	Manufacturing Processes.....	3
MATH 113	Intermediate Algebra for College Students.....	4
		10

Winter Semester

CAD 105	Mechanical Engineering Drawing.....	4
MET 102	Introduction to Materials Science.....	3
MATH 119	Trigonometry.....	3
		10

Spring Session

CAD 107	Detailing.....	4
CAD 201	I-DEAS Level 1.....	4
		8

PROGRAM TOTAL 28 CREDITS



COMPUTER ASSISTED MANUFACTURING

COMPUTER ASSISTED MANUFACTURING (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00150)

The CAM Technology graduate will comprehend, apply and analyze the processes, materials, equipment and software used in manufacturing to produce a product. The successful graduate will be able to use CAD/CAM software to generate CNC coding.

The Associate in Applied Science Degree is awarded upon successful completion of the Computer Assisted Manufacturing curriculum and all Core Skills requirements (previously General Education Goals).

FIRST YEAR

Fall Semester

MFG 102	Manufacturing Processes.....	3
CAM 102	Introduction to Computer Numerical Control (CNC).....	3
COMPS 126	Technical Programming.....	3
CAD 101	Introduction to Computer Aided Drafting.....	3
MATH 113	Intermediate Algebra for College Students.....	4
		16

Winter Semester

MFG 103	Manufacturing Theory and Machine Operation.....	3
CAM 103	Computer Numerical Control Programming.....	3
MET 102	Introduction to Materials Science.....	3
ELECT 135	Fluid Power.....	4
MATH 119	Trigonometry.....	3
		16

SECOND YEAR

Fall Semester

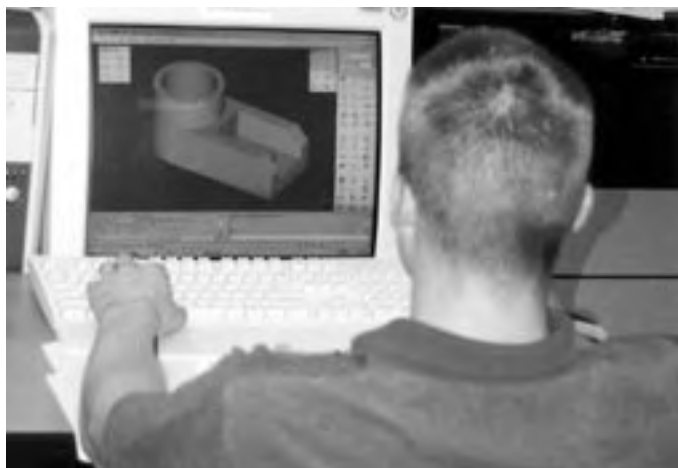
ENG 100	Communication Skills.....	3
MET 114	Engineering Materials.....	3
PSYCH 153	Human Relations.....	3
LASR 103	Laser Concepts.....	4
		13

Winter Semester

ENG 106	Business English.....	3
HUM 106	Introduction to Art and Music.....	1
POLS 105	Survey of American Government.....	3
CAM 205	CAD/CAM—Computer Aided Machining.....	3
QM 106	Introduction to Quality Systems.....	3
ELECTIVE	.....	3
		16

PROGRAM TOTAL 61 CREDITS

The above program meets all Core Skills requirements (previously General Education Goals).



COMPUTER GRAPHICS TECHNOLOGY

The Computer Graphics Technology Program prepares students for a career in the fields of graphic design and computer graphics. Students learn how to use professional level software, hardware and peripherals, and to apply the principles of design, typography, and color theory, to the creation of effective print and electronic based visual communication. The student who satisfactorily completes the CGT Curriculum and meets all the Core Skills requirements (previously General Education Goals) will qualify for an Associate of Applied Science Degree.

COMPUTER GRAPHICS TECHNOLOGY (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00028)

Students should complete all Core Skills requirements (previously General Education Goals), one CGT Specialist Track, and the Capstone courses. The program totals 64-68 credits. This program meets all Core Skills requirements (previously General Education Goals).

COMPUTER GRAPHICS TECHNOLOGY FOUNDATION (CERTIFICATE)

(Schoolcraft program code #1YC.00164)

Complete the following courses:

ART 105	Basic Drawing 1	3
or		
ART 106	Basic Design 1 (Goal #8)	3
CGT 123	Illustration—Illustrator (Goal #5)	3
CGT 125	Digital Imaging 1—Photoshop (Goal #5)	3
CGT 127	Publishing—InDesign (Goal #5)	3
ART 201	Art Appreciation (Goal #10)	3
or		
CGT 151	Survey of Design (Goal #10)	2
or		
CGT 244	History of Animation and Graphic Design (Goal #10)...	3
CGT*	Elective	2

FOUNDATION CERTIFICATE TOTAL 16-17 CREDITS

COMPUTER GRAPHICS TECHNOLOGY CERTIFICATE

(Schoolcraft program code # 1YC.00136)

Students should complete one CGT Specialist Track. Program total 34–37 credits.

COMPUTER GRAPHICS TECHNOLOGY (POST-ASSOCIATE DEGREE CERTIFICATE)

(Schoolcraft program code # PAC.00181)

Students should complete the Track Core Courses from one CGT Specialist Track. Students must have already completed the CGT Associate Degree, a similar program at an accredited institution, or have equivalent professional experience. The program totals 16-18 credits.



Core Skills

(Previously General Education Goals)

Math	Take any course which meets Goal #1	3
	(MATH 113 required for 3D Track)	
Writing	Take any sequence of courses which meets Goal #2	6
Speaking & Listening ..	Take any course which meets Goal #3	3
Reasoning.....	Take any course which meets Goal #4	3
Science	Take any course which meets Goal #6	4
	(PHY 123 required for 3D Track)	
The Individual.....	Take any course which meets Goal #7	3
Social Institutions	Take any course which meets Goal #9	3
		25

CGT Specialist Tracks

Students should complete **one** Specialist Track as part of their Associate Degree or Certificate studies. Students should complete all Track Support classes before beginning Track Core classes.

For best success, students should contact the CGT department for expected curriculum changes and upgrades.

3D Animation Track

Track Support Classes

ART 105	Basic Drawing 1 (Goal #8)	3
or		
ART 106	Basic Design 1 (Goal #8)	3
CGT 123	Illustration—Illustrator (Goal #5)	3
CGT 125	Digital Imaging 1—Photoshop (Goal #5)	3
CGT 155	Storyboarding	2
CGT 156	Photography	2
THEA 207	Stagecraft and Lighting	3
CGT 244	History of Animation and Graphic Design	3
		19

Track Core Classes

CGT 215	Motion Graphics	3
CGT 247	3D Animation 1	3
CGT 248	3D Animation 2	3
CGT 249	3D Animation 3	3
CGT 252	3D Animation 4	3
CGT 253	3D Compositing	3
		18

TRACK TOTAL 37 CREDITS

Illustration/Fine Art Track

Track Support Classes

ART 105	Basic Drawing 1 (Goal #8)	3
CGT 123	Illustration—Illustrator (Goal #5)	3
CGT 125	Digital Imaging 1—Photoshop (Goal #5)	3
CGT 127	Publishing—InDesign (Goal #5)	3
ART 115	Art History	4
or		
ART 116	Art History	4
		16

Track Core Classes

ART 106	Basic Design 1	3
ART 125	Basic Drawing 2	3
ART 126	Basic Design 2	3
CGT 226	Digital Imaging 2—Photoshop	3
ART/CGT*	Elective	3
ART/CGT*	Elective	3
		18

TRACK TOTAL 34 CREDITS

Interactive Media and Game Design

Track Support Classes

ART 105	Basic Drawing 1 (Goal #8)	3
or		
ART 106	Basic Design 1 (Goal #8)	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop (Goal #5)	3
CGT 127	Publishing—InDesign (Goal #5)	3
CGT 151	Survey of Design (Goal #10)	2
ART/CGT*	Elective	3
		17

Track Core Classes

CGT 141	Multimedia—Director	3
and		
CGT 206	Multimedia—Lingo	3
or		
CGT 211	Flash	3
and		
CGT 212	Flash Action Scripting	3
CGT 110	Illustration—FreeHand	2
CGT 150	Typography	2
CGT 155	Storyboarding	2
CGT 242	Multimedia	3
ELECTIVE*	.....	2
		17

TRACK TOTAL 34 CREDITS

Motion Graphics and Video Track

Track Support Classes

ART 105	Basic Drawing 1 (Goal #8)	3
or		
ART 106	Basic Design 1 (Goal #8)	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop (Goal #5)	3
CGT 127	Publishing—InDesign (Goal #5)	3
CGT 244	History of Animation	3
ART/CGT*	Elective	3
		18

Track Core Classes

ART 125	Basic Drawing 2 (Goal #8)	3
CGT 155	Storyboarding	2
CGT 156	Photography	2
CGT 208	Premiere	3
CGT 215	Motion Graphics	3
CGT 246	2D Animation	3
		16

TRACK TOTAL 34 CREDITS

Publishing Track

Track Support Classes

ART 105	Basic Drawing 1 (Goal #8)	3
or		
ART 106	Basic Design 1 (Goal #8)	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop (Goal #5)	3
CGT 127	Publishing—InDesign (Goal #5)	3
CGT 151	Survey of Design (Goal #10)	2
ART/CGT*	Elective	3
		17

Track Core Classes

CGT 110	Illustration—FreeHand	2
CGT 113	Publishing—QuarkXPress	2
CGT 150	Typography	2
CGT 157	Prepress	2
CGT 226	Digital Imaging 2—Photoshop	3
CGT 231	Electronic Publishing	3
ELECTIVE*	.....	3
		17

TRACK TOTAL 34 CREDITS

Web Design Track

Track Support Classes

ART 105	Basic Drawing 1 (Goal #8)	3
or		
ART 106	Basic Design 1 (Goal #8)	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop (Goal #5)	3
CGT 127	Publishing—InDesign (Goal #5)	3
CGT 151	Survey of Design (Goal #10)	2
ART/CGT*	Elective	3
		17

Track Core Classes

CGT 135	Web Graphics	3
CGT 152	DHTML—Screen Design	2
CGT 211	Flash	3
CGT 212	Flash Action Scripting	3
CGT 236	Web Design	3
CGT/CIS*	Elective	3
		17

TRACK TOTAL 34 CREDITS

Capstone Courses

Students seeking an associate degree should take the Capstone courses after finishing their Specialist Track.

CGT 153	Portfolio Preparation	2
or		
CGT 256	Portfolio 3D—Reel Development (Required for 3D Track)	3
	as well as one of the following:	
CGT 250	Practical Application (Goal #10)	3
CGT 270	Internship (Requires consent of the Department) ...	3
CGT 298	Honors Study (Requires consent of the Department)	3
		5-6

PROGRAM TOTAL 64–68 CREDITS

* A course already required may not be used to fulfill an elective requirement. It is highly recommended that students meet with full-time faculty for advice in selecting their electives. Appropriate courses from other disciplines, such as Advertising, Business, Marketing, or Computer Information Systems may be substituted with department approval.



COMPUTER INFORMATION SYSTEMS

COMPUTER INFORMATION SYSTEMS—PROGRAMMING (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00012)

As business and industry embrace new technology and procedures, the need for specially trained people accelerates. This program is designed to prepare the student for a position as an entry-level programmer. Students will learn to become proficient in following directions, analyzing problems, and writing step-by-step instructions so that the computer will efficiently process the data needed to solve these problems. Accuracy, persistence, patience, and the ability to communicate both orally and in writing are important characteristics a computer programmer should possess.

COMPUTER INFORMATION SYSTEMS— MICROCOMPUTER SUPPORT TECHNICIAN (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00014)

This program is designed to prepare the student for entry-level positions supporting users of microcomputer components of the operating system. Technicians will assist microcomputer users by recommending appropriate hardware and software, interpreting software manuals, organizing the disk storage, and creating systems solutions using the microcomputer.

Upon successful completion of the Curriculum Core Courses, all Core Skills Courses (previously General Education Goals), and appropriate degree track courses, Schoolcraft College awards an Associate in Applied Science Degree.

CURRICULUM CORE COURSES			
Dept.	Course No.	Course Title	Credits
CIS	115	Introduction to Computer Based Systems	3
CIS	129	Introduction to Programming Logic (Goal #5).....	3
CIS	170	Microsoft Windows.....	3
or			
CIS	178	Technical Microsoft Windows	3
CIS	175	Visual Basic.....	3
or			
CIS	176	Visual Basic.NET	3
CIS	225	Database Management Systems for the Microcomputer	3
CIS	250	Systems Development and Design (Goal #6)	4
			CREDITS 19

CORE SKILLS COURSES (Previously General Education Goals)			
Dept.	Course No.	Course Title	Credits
COMA	103	Fundamentals of Speech (Goal #3).....	3
ENG	101	English Composition (Goal #2)	3
ENG	102	English Composition (Goal #2)	3
HUM	106	Introduction to Art and Music (Goal #8 & #10)	1
MATH	113	Intermediate Algebra for College Students (Goal #1)	4
POLS	105	Survey of American Government (Goal #4 & #9).....	3
PSYCH	153	Human Relations (Goal #7)	3
or			
PSYCH	201	General Psychology (Goal #7 & #9).....	4
			CREDITS 20-21

PROGRAMMING			
Dept.	Course No.	Course Title	Credits
ACCT	201	Principles of Accounting.....	4
CIS	211	Introduction to C++	2
CIS	221	Advanced C++	2
CIS	255	Introduction to LINUX.....	3
or			
CIS	260	Introduction to UNIX	3
CIS	290	Object-Oriented Programming with Java .	3
ELECTIVE*		.....	8-9
			22-23
			PROGRAM TOTAL CREDITS 61-63

* Students may select three of the following if not previously taken: CIS 120, 122, 125, 177, 185, 210, 212, 223, 226, 227, 233, 238, 251, 255, 256, 260, 275, 281.

The above program meets all Core Skills requirements (previously General Education Goals).

MICROCOMPUTER SUPPORT TECHNICIAN			
Dept.	Course No.	Course Title	Credits
CIS	120	Software Applications for the Microcomputer	3
CIS	180	Spreadsheet Applications.....	3
CIS	215	Advanced Software Applications	3
CIS	235	Microcomputer Operations	3
CIS	265	Networking 1	3
CIS	276	Networking 2	3
ELECTIVE*		.....	3-4
			21-22
			PROGRAM TOTAL 60-62 CREDITS

* Students may select one of the following if not previously taken: CIS 122, 125, 210, 227, 251, ACCT 201 or BUS 201.

The above program meets all Core Skills requirements (previously General Education Goals).

**COMPUTER INFORMATION SYSTEMS—INTRODUCTORY
(ONE-YEAR CERTIFICATE)**

(Schoolcraft program code #1YC.00004)

The Computer Information Systems Certificate Program introduces students to the operating system and concepts surrounding programming logic. In addition, students obtain a basic knowledge of software applications and programming languages.

Students may anytime during or after the first year select one of the CIS Associate Degree Programs. However, all degree requirements must be fulfilled.

Students who satisfactorily complete the Computer Information Systems curriculum qualify for a Certificate of Program completion.

Fall Semester

CIS 115	Introduction to Computer Based Systems.....	3
CIS 120	Software Applications for the Microcomputer	3
CIS 129	Introduction to Programming Logic	3
CIS 170	Microsoft Windows.....	3
or		
CIS 178	Technical Microsoft Windows	3
CIS 175	Visual Basic	3
or		
CIS 176	Visual Basic.NET.....	3
CIS 225	Database Management Systems for the Microcomputer.....	3
ENG 101	English Composition.....	3
MATH 113	Intermediate Algebra for College Students.....	4
ELECTIVES*	CIS	2-3

PROGRAM TOTAL 27-28 CREDITS

* Electives: CIS 122, 125, 210 or 251.

**COMPUTER INFORMATION SYSTEMS—
NETWORKING SPECIALIST NETPREP TRACK
(ONE-YEAR CERTIFICATE)**

(Schoolcraft program code #1YC.00270)

The curriculum provides students with an in-depth understanding of the theory, hardware, and software of computer networking. For students who have completed NetPrep at the secondary level, this program offers more advanced networking study while also providing a complete introductory program for students or adult learners who are new to the field.

Students who satisfactorily complete the Computer Information Systems curriculum qualify for a Certificate of Program completion.

First Year

Fall Semester

CIS 171	NetPrep Introduction to Networking	3
CIS 271	NetPrep Local Area Networks	3
CIS 272	NetPrep Wide Area Networks	3
CIS 273	NetPrep TCP/IP and Network Architectures.....	3
ELECTIVE**	CIS	3
		15

Winter Semester

CIS 283	NetPrep Introduction to Internet Technologies.....	3
CIS 284	NetPrep Internetworking Devices.....	3
CIS 285	NetPrep Process and Protocols	3
CIS 286	NetPrep Network Analysis and Design.....	3
ELECTIVE**	CIS	3
		15

PROGRAM TOTAL 30 CREDITS

** Students may select one of the following courses if not previously taken: CIS 170, 178, 235 or 255.

**COMPUTER INFORMATION SYSTEMS
(POST-ASSOCIATE CERTIFICATE)**

(Schoolcraft program code # PAC.00155)

This post-associate certificate in Computer Science Information Systems is designed for working professionals who have experience and/or training in the computer field. This certificate will provide study in the newest technology and will enhance students' ability to meet the needs of the ever changing Computer Information Systems environment.

Prior to admission in this program, students must have already completed a minimum of an accredited Associate Degree in Applied Science. The post-associate certificate is awarded upon successful completion of 15 credit hours (exact number may vary slightly due to credit value of courses).

**COMPUTER INFORMATION SYSTEMS
CERTIFICATE REQUIREMENTS**

A student may choose from any of the courses listed below:

CIS 177	Visual Basic for Applications.....	3
CIS 185	Introduction to HTML.....	3
CIS 210	Programming with "C"	3
CIS 211	Introduction to C++.....	2
CIS 212	Introduction to CGI Using Perl.....	3
CIS 221	Advanced C++	2
CIS 223	Introduction to C#.....	3
CIS 226	Advanced Database Using PL/SQL With Oracle....	3
CIS 227	Introduction to Structured Query Language (SQL).....	1
CIS 233	Active Server Pages	3
CIS 235	Microcomputer Operations	3
CIS 238	JavaScript.....	3
CIS 250	Systems Development and Design.....	3
CIS 251	IT Project Management.....	3
CIS 255	Introduction to LINUX	3
CIS 256	Introduction to XML.....	3
CIS 260	Introduction to UNIX.....	3
CIS 265	Networking 1	3
CIS 275	Advanced Visual Basic	3
CIS 276	Networking 2	3
CIS 281	Data Structures and Introduction to Windows Programming	3
CIS 290	Object-Oriented Programming with Java	3

Completion of a minimum of 15 credit hours is required.
Courses may be taken through independent study.



**COMPUTER INFORMATION SYSTEMS—WEB SPECIALIST
ONE-YEAR CERTIFICATE**

(Schoolcraft program code # 1YC.00241)

ASSOCIATE DEGREE

(Schoolcraft program code # AAS.00275)

The technology of the Internet is constantly evolving both in terms of delivery infrastructure and Web site development tools. To stay abreast in these technological advances requires programming and design knowledge, skills and experience. A good site must include both quality visual communication design and functionality. Programming is needed for interactivity to search databases and track usage. Visual Graphic Design is needed to convey the content message and provide branding for products and services.

This degree is designed to prepare the Internet Professional to design web pages and program for the web. It provides the working knowledge of various programming languages, multi-media technologies, graphic development and web design tools. The Internet Professional may be involved with designing, developing, operating, maintaining and managing web-based publishing. Students will get an overview of the technical programming and graphic design areas which are brought together throughout the program and in a final capstone to experience.

Students who satisfactorily complete the Curriculum Core Courses qualify for a Certificate of Program completion. Upon successful completion of the Curriculum Core Courses, all Core Skills requirements (previously General Education Goals) and Curriculum Electives Schoolcraft College awards an Associate in Applied Science Degree.



CURRICULUM CORE COURSES

CGT 125	Digital Imaging 1—Photoshop	3
CGT 135	Web Graphics	3
CGT 110	Illustration—FreeHand	2
or		
CGT 123	Illustration—Illustrator	3
CGT 152	DHTML—Screen Design	2
or		
CIS 185	Introduction to HTML.....	3
CGT 236	Web Design	3
CIS 129	Introduction to Programming Logic (Goal #5).....	3
CIS 171	NetPrep Introduction to Networking	3
CIS 212	Introduction to CGI Using Perl.....	3
CIS 233	Active Server Pages	3
CIS 238	JavaScript	3

WEB SPECIALIST (ONE-YEAR CERTIFICATE) CREDITS 28-30

CORE SKILLS COURSES

(previously General Education Goals)

MATH 113	Intermediate Algebra for College Students (Goal #1)	4
ENG 101	English Composition (Goal #2)	3
ENG 102	English Composition (Goal #2)	3
COMA 103	Fundamentals of Speech (Goal #3).....	3
POLS 105	Survey of American Government (Goal #4 & #9) ..	3
CIS 250	Systems Analysis and Design (Goal #6).....	4
PSYCH 153	Human Relations (Goal #7)	3
or		
PSYCH 201	General Psychology (Goal #7).....	4
HUM 106	Introduction to Art and Music (Goal #8 & #10)	1

CREDITS 24-25

CURRICULUM ELECTIVES

*Electives	9
------------------	---

PROGRAM TOTAL 61-64 CREDITS

* Students may select three of the following courses to meet the Curriculum Elective Requirement: CIS 123, 125, 176, 223, 225, 255, 256, 283, CGT 206, 211, 246.

The Associate Degree program meets all Core Skills requirements (previously General Education Goals).



COMPUTER SERVICE

COMPUTER SERVICE TECHNICIAN (ONE-YEAR CERTIFICATE)

(Schoolcraft program code #1YC.00159)

Computer Service Technicians provide technical support for computer systems, microcomputers, networks and peripheral devices. The technician needs to be able to provide diagnostic analysis and solutions to hardware, software and network problems. A technician will need to have a broad background in the areas of microcomputers, as well as network wiring and standards. The technician will also assist in the installation and maintaining of computer systems, networks, and software.

Students who complete the Computer Service Program qualify for a Certificate of Program Completion.

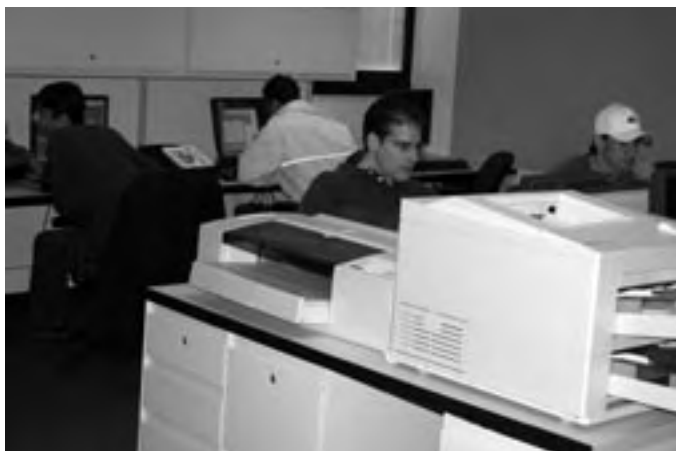
Fall Semester

ELECT 127	DC Circuits and Mathematical Modeling	5
ELECT 119	Basic Measurement and Reporting Skills	3
COMPS 124	Introduction to Personal Computers and Software	3
COMPS 126	Technical Programming	3
CIS 235	Microcomputer Operations	3
		17

Winter Semester

CIS 265	Networking 1	3
COMPS 147	Computer Peripheral Maintenance and Management	4
ELECTIVE	CIS	3
ELECTIVE	CIS	3
		13

PROGRAM TOTAL 30 CREDITS



COSMETOLOGY MANAGEMENT

COSMETOLOGY MANAGEMENT (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00010)

This program is designed to give licensed, practicing cosmetologists an opportunity to develop special skills in business-related activities and to obtain an Associate Degree in Applied Science from Schoolcraft College.

Schoolcraft College will grant credit equal to 30 semester credit hours upon receipt of current and proper evidence of license based upon the standards of the State Board of Cosmetology. These credits will not be entered into the student's transcript until a minimum of 15 semester credit hours has been earned with a grade-point average of 2.0 at Schoolcraft College.

General and related requirements to be completed at Schoolcraft College include the first year completed by advanced standing followed by these classes.

Students who satisfactorily complete this program and all Core Skills requirements (previously General Education Goals) requirements qualify for an Associate in Applied Science Degree.

SECOND YEAR

Fall Semester

BUS 101	Introduction to Business	3
BUS 103	Organizing a Small Business	3
ENG 100	Communication Skills	3
	or	
ENG 101	English Composition	3
PSYCH 153	Human Relations	3
BUS 105	Business Mathematics	3
		15

Winter Semester

ACCT 103	Introduction to Accounting	4
BUS 104	Operating a Small Business	3
ENG 116	Technical Writing	3
COMA 103	Fundamentals of Speech	3
POLS 105	Survey of American Government	3
		16

Spring Session

CIS 105	Computer Orientation	1
HUM 106	Introduction Art and Music	1
ELECTIVE	Goal #6 Course	3
		5

PROGRAM TOTAL 36 CREDITS

The above program meets all Core Skills requirements (previously General Education Goals).



CRIMINAL JUSTICE

CRIMINAL JUSTICE (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00086)

Law enforcement has become a highly specialized and complex area of work at the local, state and national levels. The Michigan Commission on Law Enforcement Standards (MCOLES) requires an Associate Degree for Certification of all pre-service candidates. Objectives of the Criminal Justice Associate in Applied Science Degree Program are to upgrade personnel employed in law enforcement and to prepare students for full-employment in this field.

Students who successfully complete the Criminal Justice program and all Core Skills requirements (previously General Education Goals) qualify for an Associate in Applied Science Degree.

FIRST YEAR

Fall Semester

CJ 113	Introduction to the Criminal Justice System.....	3
CJ 102	Organization and Administration of Law Enforcement Agencies	3
POLS 105	Survey of American Government	3
COMA 103	Fundamentals of Speech	3
ENG 100	Communication Skills.....	3
or		
ENG 101	English Composition.....	3
		15

Winter Semester

HUM 106	Introduction to Art and Music.....	1
COR 110	Introduction to Corrections.....	3
CJ 104	Introduction to Security	3
PSYCH 153	Human Relations.....	3
ENG 102	English Composition.....	3
or		
ENG 116	Technical Writing.....	3
CJ 107	Police Field Operations.....	3
		16

SECOND YEAR

Fall Semester

CJ 209	Basic Criminalistics	3
CJ 211	Criminal Law and Procedures.....	3
BIOL 103	Health Education.....	3
CIS 105	Computer Orientation	1
BUS 105	Business Mathematics.....	3
ELECTIVE	.....	3
		16

Winter Semester

CJ 201	Criminal Investigation	3
CJ 212	Criminology	3
CJ 221	Juvenile Justice	3
SOC 201	Principles of Sociology	3
CIS 115	Introduction to Computer Based Systems.....	3
		15

PROGRAM TOTAL 62 CREDITS

The above program meets all Core Skills requirements (previously General Education Goals).



CRIMINAL JUSTICE (ASSOCIATE DEGREE WITH ACADEMY)

(Schoolcraft program code # AAS.00086) - Restricted Enrollment

This program contains courses restricted to students officially admitted to this program.

The criminal justice system is a highly specialized field. Law enforcement officers are employed by 40,000 local police agencies nationwide as well as county sheriffs' departments. Law enforcement officers must be prepared to interact with the public in a position of responsibility and authority. Knowledge of the criminal justice system, including criminal law, police field operations, criminal investigation, and human relations, enhances the professionalism of the criminal justice system.

Candidates for employment as law enforcement officers must be certified by the Michigan Commission on Law Enforcement Standards (MCOLES). After completing the Police Academy (CJ 286), students may become certified by passing the MCOLES Certification Exam. Certification is valid for one year. Pre-service students, who are not employed by a law enforcement agency, must complete 41 credit hours of course work for the associate degree before taking CJ 286.

Students who complete the Criminal Justice program and all Core Skills requirements (previously General Education Goals) qualify for an Associate in Applied Science Degree.

For more information about certification please contact:

Michigan Commission on Law Enforcement Standards (MCOLES)
7426 North Canal Road
Lansing, MI 48913
517-322-1417
mcoles.org

FIRST YEAR

Fall Semester

CJ 102	Organization and Administration of Law Enforcement Agencies	3
POLS 105	Survey of American Government	3
COMA 103	Fundamentals of Speech	3
ENG 100	Communication Skills.....	3
or		
ENG 101	English Composition.....	3
HUM 106	Introduction to Art and Music.....	1
		13

Winter Semester

COR 110	Introduction to Corrections.....	3
CJ 211	Criminal Law and Procedures.....	3
PSYCH 153	Human Relations.....	3
ENG 116	Technical Writing	3
or		
ENG 102	English Composition.....	3
CIS 105	Computer Orientation	1
		13

SECOND YEAR

Fall Semester

BUS 105	Business Mathematics.....	3
CJ 209	Basic Criminalistics	3
CJ 212	Criminology	3
CJ 221	Juvenile Justice	3
SOC 201	Principles of Sociology	3
		15

Winter Semester

CJ 286	Police Academy	21
		21

PROGRAM TOTAL 62 CREDITS

The above program meets all Core Skills requirements (previously General Education Goals).

CULINARY ARTS

CULINARY ARTS (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00087)

This program contains courses restricted to students officially admitted to this program. CAP 090, Introduction to Professional Cooking is a preprogram requirement.

The Culinary Arts Associate Degree Program provides the skills necessary to enter food service occupations at advanced levels. The Core Skills (previously General Education Goals) portion of the curriculum is vital to students' development.

The technical portion of the curriculum prepares students in quality food preparation, advanced food preparation, cost control, portion control, quantity baking, quantity pastry, advanced pastry, meat cutting, garde manger, dining room operation and gourmet cooking. Supervisory functions, menu formulation, terminology, and decorative culinary skills are also covered.

Students who satisfactorily complete the Culinary Arts program and all Core Skills requirements (previously General Education Goals) qualify for an Associate in Applied Science Degree.

** Signifies course is also open to any Schoolcraft student.

FIRST YEAR Fall Semester

	Lecture/Lab	Cr. Hrs.
CAP 144	Baking 1	(4-0)..... 4
CAP 124	Breakfast and Pantry	(4-0)..... 4
CAP 125	Pastries 1	(4-0)..... 4
CAP 141	Culinary Sanitation**	(2-0)..... 2
ENG 100	Communication Skills (Goal #2 & #3) ...	(3-0)..... 3
		17

Winter Semester

CAP 142	Butchery	(4-0)..... 4
CAP 128	Introduction to Food Techniques	(4-0)..... 4
CAP 143	Dining Room Service	(4-0)..... 4
ENG 106	Business English (Goal #2).....	(3-0)..... 3
BUS 105	Business Mathematics (Goal #1)	(3-0)..... 3
or		
ACCT 103	Introduction to Accounting (Goal #1).....	(4-0)..... 4
ELECTIVE*		3-4
		21-23

SECOND YEAR

Fall Semester

CAP 227	Restaurant Cooking and Preparation	(4-0)..... 4
CAP 229	International Cuisine	(4-0)..... 4
CAP 215	Charcuterie	(4-0)..... 4
CAP 241	Culinary Nutrition**	(2-0)..... 2
SOC 201	Principles of Sociology	(3-0)..... 3
or		
PSYCH 153	Human Relations (Goals #7 & #9).....	(3-0)..... 3
ELECTIVE*		3-4
		20-21

Winter Semester

(2nd year continued)

CAP 240	Pastries 2	(4-0)..... 4
CAP 242	À la Carte	(4-0)..... 4
CAP 243	Storeroom Operations (Goal #5).....	(3-0)..... 3
POLS 105	Survey of American Government (Goals #4 & #9)	(3-0)..... 3
ELECTIVES*		6-7
		20-21

PROGRAM TOTAL 78-82 CREDITS

The above program meets all Core Skills requirements (previously General Education Goals).

CULINARY ARTS (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00079)

Upon completion of the one-year certificate program, students may select the Associate Degree as their second year option.

All the requirements of that Associate Degree must be fulfilled, including all of the Core Skills (previously General Education Goals) Goal courses.

FIRST YEAR

Fall Semester

	Lecture/Lab	Cr. Hrs.
CAP 144	Baking 1	(4-0)..... 4
CAP 124	Breakfast and Pantry	(4-0)..... 4
CAP 125	Pastries 1	(4-0)..... 4
CAP 141	Culinary Sanitation**	(2-0)..... 2
ENG 100	Communication Skills.....	(3-0)..... 3
		17

Winter Semester

CAP 142	Butchery	(4-0)..... 4
CAP 128	Introduction to Food Techniques	(4-0)..... 4
CAP 143	Dining Room Service	(4-0)..... 4
ENG 106	Business English	(3-0)..... 3
BUS 105	Business Mathematics.....	(3-0)..... 3
CAP 241	Culinary Nutrition**	(2-0)..... 2
		20

PROGRAM TOTAL 37 CREDITS

* Culinary Arts students must choose their 12 credits of electives from the list below:

	Lecture/Lab	Cr. Hrs.
ART 105	Basic Drawing (Goal #8)	(0-6)..... 3
ART 201	Art Appreciation (Goal #8 & Goal #10)	(3-0)..... 3
BUS 122	Advertising.....	(3-0)..... 3
BUS 207	Business Law	(3-0)..... 3
BUS 217	Business Management (Goal #6).....	(3-0)..... 3
BUS 220	Supervision	(3-0)..... 3
BUS 226	Principles of Marketing.....	(3-0)..... 3
CIS 120	Software App. For the Microcomputer ...	(3-0)..... 3
CM 107	Food and Culture.....	(3-0)..... 3
CM 108	Introduction to Hotel/Hospitality Management	(2-0)..... 2
CM 109	Hospitality Law	(3-0)..... 3
CM 203	Restaurant Concepts and Design	(3-0)..... 3
CM 210	Wine and Spirits**	(3-0)..... 3
CM 211	Culinary Marketing for Restaurant Industry	(3-0)..... 3
CAP 190	Externship	(1-15)..... 3
CAP 247	Banquets and Catering**	(2-2)..... 3
CAP 260	Competitive Ice Carving**	(2-2)..... 3
CAP 265	Advanced Competitive Ice Carving**	(1-3)..... 3
CAP 267	Chocolatier	(4-0)..... 4
CAP 295	Salon Competition 1 (Goal #8).....	(2-2)..... 3
CAP 296	Salon Competition 2	(2-2)..... 3

** Signifies course is also open to any Schoolcraft student.



CULINARY ARTS PROGRAM ADVANCED

BRIGADE ADVANCED SKILLS (POST-ASSOCIATE CERTIFICATE)

(Schoolcraft program code #PAC.00288)

When the great chef Auguste Escoffier modernized the European kitchen systems and codified recipes and techniques, he created a revolution in cooking that is still felt today. The kitchen hierarchy was established in order to serve food in separate courses while maintaining the quality and integrity of each recipe. Previously fine cuisine was restricted to large banquets that could only be afforded by the very wealthy aristocracy. Escoffier refined a system that created separate stations within the kitchen that functioned as their own domain responsible for part of a meal or banquet. This system referred to as the Brigade System was modeled on the military hierarchy. The chef was the general, each station had a chef equivalent to a captain, and each station chef had cooks equivalent to the infantryman and so on. Even the chef's double-breasted jacket was styled after the military dress of the day. Without the help of modern kitchen equipment and unbelievable harsh work conditions a hotel kitchen needed an army of chefs, cooks, and scullery workers in order to serve fine cuisine. That proud history and tradition is still carried on in some form in today's modern hotel and restaurant kitchens. The armies are smaller and the work conditions have improved but the system is still efficient and has prevailed for almost a century.

Schoolcraft College Culinary Arts has created a unique program based on this system of kitchen organization. This graduate advanced culinary arts program will run for 45 weeks, four days a week, for 7 hours a day. The thrust of the program is to propel students who have graduated from accredited post-secondary culinary arts programs to a higher level of expertise and skill. Students will operate the back of the house in a new fine dining restaurant housed in the VisTaTech Center.

Every student chef will work each station of the kitchen for several weeks at a time, giving them the hands-on experience and confidence needed to excel in the restaurant industry. Included in the curriculum are courses in entrepreneurship in which the student will work in a hotel or restaurant, learning what it takes to operate a restaurant from the financial side of the house. To keep the curriculum in line with industry present and future needs students will have the opportunity to create nutritionally balanced vegetarian meals and work with nutrition menu software to create menus with the nutritional breakdown of each item prepared. The entire program will focus on the practical aspects of running a restaurant business. Special attention will be paid to optimum product utilization and maintaining balanced food costs. At the end of the three consecu-

tive semesters, students will have worked every station in the kitchen and gained the kind of practical experience that may have taken years to achieve in a restaurant or hotel kitchen. Each prospective student will be given a personal interview and an entrance examination. Students will be required to maintain a skills logbook, which will document their satisfactory competence in all of the key skill sets that are required in the industry. Along with a certification from Schoolcraft College, credits are accepted by the American Culinary Federation (ACF) as points towards different levels of certification.

The post-associate certificate is awarded upon successful completion of the Brigade Advanced Culinary skills program.

CERTIFICATE REQUIREMENTS

Fall Semester

CAPA 200	Second Cook Station.....	4
CAPA 201	À la Carte Line.....	4
CAPA 202	Garde Manger	4
		12

Winter Semester

CAPA 203	Roast and Prep	4
CAPA 204	Nutrition and Vegetable Cooking.....	4
CAPA 205	Hot Line Support.....	4
		12

Spring Semester

CAPA 206	Baking and Pantry.....	4
CAPA 207	Restaurant Desserts.....	4
CAPA 208	Entrepreneur.....	4
		12

PROGRAM TOTAL 36 CREDITS

CULINARY BAKING AND PASTRY ARTS

(ONE-YEAR CERTIFICATE)

(Schoolcraft program code #1YC.00247)

This program contains courses restricted to students officially admitted to this program.

The Baking and Pastry Arts Certificate Program provides the skills necessary to enter bakeries, pastry shops, restaurants and hotel bakery and pastry kitchens.

The curriculum prepares students in quality baking and pastry preparation. The two core courses start with the fundamental skills and build gradually to the more advanced and refined skills. Topics covered include professionalism, safety and sanitation, dietetic baking, baking processes and techniques, pies, tarts, contemporary tortes, French pastry, cold and frozen desserts, chocolates, cake decoration, breads, cookies, and many other related nutritional desserts.

Students who satisfactorily complete this program qualify for a certificate in Baking and Pastry Arts.

Prerequisite Semester

CBPA 090	Introduction to Baking and Pastry Skills and Techniques	1
----------	---------------------------------------------------------------	---

FIRST YEAR

Fall Semester

CBPA 125	Pastries.....	20
----------	---------------	----

Winter Semester

CBPA 144	Baking.....	15
----------	-------------	----

PROGRAM TOTAL 36 CREDITS



CULINARY MANAGEMENT

CULINARY MANAGEMENT (POST-ASSOCIATE CERTIFICATE)

(Schoolcraft program code #PAC.00157)

The Culinary Management Program is designed for individuals who have already mastered the Culinary Arts skill concepts and are now interested in enriching their formal education. Practical applications in managerial, financial and marketing concepts will be explored with an emphasis on entrepreneurial techniques in restaurant operations.

Escalating food-service requirements often necessitate that a person acquire a formalized foundation in Culinary Arts which is then complemented by a stronger understanding of management. Inventory, purchasing, receiving, cost controls, and menu formulation are also taught in this new management post-associate certificate.

Admission Requirements at Schoolcraft College

In addition to following the College's general admission procedure, students must have completed an accredited Associate Degree in Culinary Arts. Students having earned a two-year Culinary Arts certificate must fulfill their needed Core Skills (previously General Education Goals) courses concurrently to earn this post-associate certificate. Individual cases will be reviewed at the discretion of the Culinary Arts department.

The post-associate certificate is awarded upon successful completion of 15 credit hours (exact number may vary slightly due to credit value or content of courses).

CULINARY MANAGEMENT CERTIFICATE REQUIREMENTS

Fall Semester

CM 213	Culinary Management for Restaurant Operations ..	3
CM 203	Restaurant Concepts and Design	3
CM 222	Management Accounting in the Restaurant Industry	4

Winter Semester

CM 107	Culinary Management—Food and Culture.....	3
CM 211	Culinary Marketing for the Restaurant Industry	3

Program Elective-Suggested

CM 108	Introduction to Hotel/Hospitality Management	2
CM 109	Hospitality Law.....	3
CM 210	Wine and Spirits.....	3

Completion of a minimum of 15 credit hours is essential.

A student may choose an applicable 200-level elective.



EDUCATION

EDUCATION TRANSFER PROGRAM PRE-ELEMENTARY EDUCATION

(Schoolcraft program code # AA.00700)

Pre-Elementary Education is a two-year Liberal Arts Program designed for students who plan to become teachers in elementary education. It provides curriculum to satisfy the Core Skills (previously General Education Goals) Requirements for Schoolcraft College and basic courses to be transferred to the Elementary Education Program leading to a bachelor's degree with a teaching certificate. Students should see a counselor to ensure maximum ease of transfer.

Students who satisfactorily complete the Pre-Elementary Education curriculum and all Core Skills requirements (previously General Education Goals) qualify for an Associate in Arts Degree.

FIRST YEAR

Fall Semester

ENG 101	English Composition.....	3
GEOG 130	Physical Geography	4
MATH 105	Mathematics for Elementary Teachers 1	4
POLS 105	Survey of American Government	3
CIS 115 or CIS 120	Introduction to Computer Based Systems.....	3
	Software Applications for the Microcomputer	3
		17

Winter Semester

ENG 102	English Composition.....	3
MUSIC 107	Music for Elementary Teachers	4
ART 113	Art Education	3
COMA 103	Fundamentals of Speech	3
HIST 151*	Early America—U.S. History	3
		16

SECOND YEAR

Fall Semester

ENG 203	Children's Literature	3
PE 240	Physical Education for Elementary Teachers.....	3
PSYCH 201	General Psychology	4
ELECTIVES**	.....	5-6
		15-16

Winter Semester

ENG 243	Introduction to Literature—Short Fiction.....	3
PHIL 243	Introduction to Philosophy.....	3
GEOL 133***	Physical Geology	4
ELECTIVES**	.....	5-6
		15-16

PROGRAM TOTAL 63-65 CREDITS

* HIST 152 or HIST 153 may be substituted for HIST 151.

** Any combination of the following courses may be taken for 9 to 11 hours of electives: CIS 115 (3) or CIS 120 (3), HIST 134 (4), HIST 137 (4), HIST 138 (3), PE Activities (maximum 2 credits), SOC 201 (3).

*** CHEM 111 may be substituted for GEOL 133.

Note: Slight variations in required courses may exist depending on the transfer institution. It is in the student's best interest to consult a counselor or check the Transfer Guides in the Counseling Department for specific requirements.

The above program meets all Core Skills requirements (previously General Education Goals).

ELECTRONIC TECHNOLOGY

ELECTRONIC TECHNOLOGY (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00120)

The Electronics Program is designed to give students a strong background in the fundamentals of electricity, electronic devices and basic circuits-digital and linear. The curriculum includes laboratory demonstration of the principles taught in class affording practical experience in fabrication, instrumentation and presentation.

With the multiplicity of equipment presently in use and the rapid advance and change in technology, the department stresses the development of a broad background that will enable students to find employment and be able to further their skills in a diversified number of industries.

Hand tools and fabrication tools required for this program will be purchased by the student.

Students who satisfactorily complete the Electronic Technology Program and all Core Skills requirements (previously General Education Goals) qualify for an Associate in Applied Science Degree.

FIRST YEAR

Fall Semester

ELECT 127	DC Circuits and Mathematical Modeling	5
ELECT 119	Basic Measurement and Reporting Skills	3
ENG 100*	Communication Skills	3
COMPS 124	Introduction to Personal Computers and Software	3
		14

Winter Semester

ELECT 128	AC Circuits and Mathematical Modeling	5
ELECT 135	Fluid Power	4
ELECT 237	Programmable Logic and Industrial Controls	4
ENG 106*	Business English	3
		16

SECOND YEAR

Fall Semester

ELECT 129	Diodes and Transistors	3
ELECT 226	Digital Logic Circuits	4
COMPS 126	Technical Programming	3
HUM 106	Introduction to Art and Music	1
ELECTIVE**	.....	3-4
		14-15

Winter Semester

ELECT 134	Introduction to Microcontrollers	3
ELECT 206	Operational Amplifiers and Linear Integrated Circuits	4
POLS 105	Survey of American Government	3
PSYCH 153	Human Relations	3
		13

Spring Semester

ELECT 229	Electronics Troubleshooting	3
		3

PROGRAM TOTAL 60-61 CREDITS

* Students wishing to transfer to a four-year institution may select ENG 101, ENG 102 and COMA 103.

** ELECT 239 or students wishing to transfer to a four-year institution may wish to select a Math elective.

The above program meets all Core Skills requirements (previously General Education Goals).

ELECTRONICS SERVICE (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00125)

Students who satisfactorily complete the Electronics Service program qualify for a program certificate.

Fall Semester

ELECT 127	DC Circuits and Mathematical Modeling	5
ELECT 135	Fluid Power	4
ELECT 119	Basic Measurement and Reporting Skills	3
COMPS 124	Introduction to Personal Computers and Software	3
		15

Winter Semester

ELECT 128	AC Circuits and Mathematical Modeling	5
ELECT 129	Diodes and Transistors	3
ELECT 229	Electronic Troubleshooting	3
ELECT 237	Programmable Logic and Industrial Controls	4
		15

PROGRAM TOTAL 30 CREDITS



EMERGENCY MEDICAL TECHNOLOGY

EMERGENCY MEDICAL TECHNOLOGY (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00250)

Note: Program is under revision for Fall 2004. Contact 734-462-4770 for information.

The Associate Degree in Emergency Medical Technology is designed for EMT students who wish to earn an associate degree. Upon successful completion of the Basic (107) and the three Paramedic (156, 157, & 158) courses, a student will qualify for the Emergency Medical Technology One-Year Certificate.

Upon successfully completing all Core Skills requirements (previously General Education Goals) and the Emergency Medical Technology curriculum listed below, a student will qualify for an Associate in General Studies.

FIRST YEAR

Fall Semester

ENG 101	Communication Skills.....	3
EMT 107	Emergency Medical Technology—Basic.....	10.5
CIS 105	Computer Orientation	1
HUM 106	Introduction to Art and Music.....	1
		15.5

Winter Semester

COMA 103	Fundamentals of Speech	3
ENG 102	Technical Writing.....	3
BUS 105	Business Mathematics.....	3
POLS 105	Survey of American Government	3
PSYCH 153	Human Relations.....	3
		15

SECOND YEAR

Fall Semester

EMT 156	Paramedic Technology 1	16
		16

Winter Semester

EMT 157	Paramedic Technology 2	12
		12

Spring Session (12 Weeks)

EMT 158	Internship Experience	5
		5

PROGRAM TOTAL 63.5 CREDITS

Elective (Optional)

EMT 113	Emergency Medical Technology—Specialist.....	5
---------	----------------------------------------------	---

The above program meets all Core Skills requirements (previously General Education Goals)

EMERGENCY MEDICAL TECHNOLOGY (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00024)

Note: Program is under revision for Fall 2004. Contact 734-462-4770 for information.

The Emergency Medical Technology Program prepares students for employment as emergency medical care givers. Content areas are covered in lectures, practical skills are developed in laboratory settings, and clinical applications are divided between ambulances and hospital emergency rooms.

All courses are approved by the Michigan Department of Labor and Economic Growth and are to be taken in sequence. Each course prepares the student for the respective level of State licensing examination.

Students are evaluated in three areas: content, practical skills, and clinical performance. Students achieving an 80% or higher will receive a certificate of completion and be eligible for state licensing. Clinical performance is evaluated by attendance and feedback from ambulance and hospital personnel. Attendance policies are regulated by the State. All students participating at clinical sites will be required to purchase liability insurance (Coverage is good for one year).

Students who successfully pass the Emergency Medical Technology: Basic and the Paramedic Technology courses qualify for the Emergency Medical Technology One-Year Certificate.

FIRST YEAR

Fall Semester

EMT 107	Emergency Medical Technology—Basic	10.5
		10.5

SECOND YEAR

Fall Semester

EMT 156	Paramedic Technology 1	16
		16

Winter Semester

EMT 157	Paramedic Technology 2	12
		12

Spring Session

EMT 158	Internship Experience	5
		5

PROGRAM TOTAL 43.5 CREDITS

Elective (Optional)

EMT 113	Emergency Medical Technology—Specialist.....	5
---------	----------------------------------------------	---

Note: The special nature of the EMT course work precludes concurrent enrollment in the courses for this certificate, thus necessitating additional time to complete the requirements for the one-year certificate. Historically, individuals who take all three courses have done so over a two-year period.



ENERGY SPECIALIST

ENERGY SPECIALIST (CERTIFICATE)

(Schoolcraft program code # 1YC.00156)

This program will provide students with the competencies, i.e. knowledge, skills, and attitudes to function as a beginning Customer Energy Specialist for Consumers Power Company.

The program is designed as an “On-the-Job” training program with the course work taken concurrently at participating Michigan Community Colleges. The student will be required to carry a minimum of four semester credit hours each semester while working as a trainee Customer Energy Specialist at Consumers Power Company.

Special admission criteria is required for entry into the program consisting of being hired by Consumers Power, passing the physical exam, and previous satisfactory completion of approximately 15 to 20 semester credit hours of the following courses: Basic Drafting, Practical Electricity, Computer Assisted Drafting, College Algebra, AC Circuits, Applied Physics, and Personal Computer Applications.

Students who satisfactorily complete the Energy Specialist requirements qualify for a Certificate of Program completion.

The following courses may be taken in any sequence providing the necessary prerequisites have been met.

Business	
ACCT 201	Principles of Accounting..... 4
BUS 226	Principles of Marketing..... 3
BUS 101	Introduction to Business 3
BUS 207	Business Law 3
CIS 115	Introduction to Computer Based Systems..... 3
	16
Communications	
ENG 101	English Composition..... 3
ENG 116	Technical Writing..... 3
COMA 103	Fundamentals of Speech 3
	9
Technical	
CAD 103	Engineering Graphics..... 3
DSGN 113	Industrial Schematics With Animation 3
CAD 105	Mechanical Engineering Drawing 4
CAD 107	Detailing..... 4
PHYS 123	Applied Physics 5
ELECT 127	DC Circuits and Mathematical Modeling 5
ELECT 128	AC Circuits and Mathematical Modeling 5
	29

PROGRAM TOTAL 54 CREDITS

Program Electives - Suggested Course Options: COMA 201, ACCT 202, BUS 217, BUS 230, and MATH 113.



ENGINEERING

ENGINEERING TRANSFER PROGRAM

PRE-ENGINEERING—MECHANICAL (ASSOCIATE DEGREE)

(Schoolcraft program code # AE.00039)

Pre-Engineering is a two-year associate degree program designed for students who wish to transfer to institutions offering a bachelor’s degree in areas such as Mechanical, or Civil Engineering.

Students who satisfactorily complete the Pre-Engineering curriculum and all Core Skills requirements (previously General Education Goals) qualify for an Associate in Engineering Degree.

FIRST YEAR

Fall Semester

MATH 150	Calculus with Analytic Geometry 1..... 5
CHEM 111	General Chemistry 4
ENG 101	English Composition..... 3
CAD 103**	Engineering Graphics..... 3
	15

Winter Semester

MATH 151	Calculus with Analytic Geometry 2..... 5
PHYS 211	General Physics..... 5
ENG 102	English Composition..... 3
PSYCH 201*	General Psychology 4
	17

Spring/Summer Session

HUM*	Goal #8 course 3
	3

SECOND YEAR

Fall Semester

MATH 240	Calculus with Analytic Geometry 3..... 5
PHYS 212	General Physics..... 5
ENGR 201	Statics..... 3
COMA 103*	Fundamentals of Speech 3
	16

Winter Semester

MATH 252	Differential Equations 5
ENGR 202	Mechanics of Materials..... 3
ENGR 203	Dynamics 4
ECON 201	Principles of Economics 4
	16

PROGRAM TOTAL 67 CREDITS

* Students may substitute other courses in humanities/social sciences, which satisfy skill/goal requirements and the transfer institution.

** Students may substitute other CAD or CIS courses which satisfy goal #5 and the transfer institution. Contact counseling for more information.

Note: Slight variations in required courses may exist depending on the transfer institution. It is in the student’s best interest to consult a counselor or check the Transfer Guides in the Counseling Department for specific requirements.

The above program meets all Core Skills requirements (previously General Education Goals).

ENVIRONMENTAL TECHNOLOGY

ENVIRONMENTAL TECHNOLOGY (ASSOCIATE DEGREE)

(Schoolcraft program code #AAS.00176)

Environmental technicians provide technical assistance to engineers and scientists, by performing tasks such as sample collection, monitoring, instrument calibration, and data management. They are typically employed by environmental engineering consulting firms, industries, and government agencies. Environmental technicians need a strong science background, a basic knowledge of computers, and both written and oral communication skills.

The Environmental Technology Program provides students with the necessary technical and social background to be successful environmental technicians. The curriculum includes courses in basic sciences, environmental science, communication, and computer literacy. The spring/summer cooperative work program also provides students with practical, on the job experience. Environmental Technology Program graduates should be able to conduct and assist with procedures that obtain information for the analysis, organization, and problem-solving of environmental issues.

Upon completion of the Environmental Technology Program, students should be able to:

- Identify and use appropriate terminology regarding environmental policies, rules, regulations, and laws.
- Understand state and federal laws, rules and regulations, and be familiar with state and federal government agencies.
- Use appropriate federal and state protocols to collect water, waste, air, and soil samples.
- Review hazardous waste state and federal forms to provide information for compliance with environmental standards.
- Be familiar with OSHA regulations, and perform duties related to the management, storage, disposal and emergency response of spills of hazardous materials, in accordance with OSHA health and safety requirements.
- Compile data and perform data manipulation using a word processor, spreadsheet, and graphs.
- Collect and compile data necessary for a environmental site assessment.
- Use basic concepts of geology and hydrology when compiling and summarizing the data used to analyze the transport of hazardous substances.
- Conduct field investigations using current instrumentation.
- Use advanced computer-aided mapping techniques.
- Understand basic risk assessment.
- Understand and use quality control procedures.
- Use sources of electronic information systems, such as the Internet.

Students who satisfactorily complete the Environmental Technology Program and all Core Skills (previously General Education Goals) qualify for an Associate Degree in Applied Science.

FIRST YEAR

Fall Semester

ENG 100*	Communication Skills.....	3
GEOG 212	Environmental Science	3
GEOL 133	Physical Geology	4
or		
GEOG 130	Physical Geography	4
BIOL 101	General Biology	4
		14

Winter Semester

MATH 119	Trigonometry.....	3
ENVR 107	Soil Mechanics.....	4
CIS 115**	Introduction to Computer Based Systems.....	3
CHEM 111	General Chemistry	4
HUM 106***	Introduction to Art and Music.....	1
		15

SECOND YEAR

Fall Semester

ENVR 202	Environmental Microbiology.....	5
ENVR 204	Introductory Surveying	3
POLS 105	Survey of American Government	3
ENVR 206	Environmental Law and Regulations.....	3
		14

Winter Semester

ENVR 211	Health and Safety Training for Handling Hazardous Materials (40-hour OSHA Training)....	3
PE 121	First Aid and Personal Safety.....	2
ENG 116	Technical Writing	3
ENVR 215	Environmental Seminar	1
ENVR 218	Environmental Hydrology	3
or		
GEOG 217	Water Resources.....	3
		12

Spring/Summer Session

ENVR 231	Field Co-op Experience	5
		5

PROGRAM TOTAL 60 CREDITS

* ENG 101 can be substituted. If ENG 101 is selected, then a Core Skills (previously General Education Goals) Goal #3 course must also be taken.

** CIS 115 or a higher CIS course that satisfies Core Skills (previously General Education Goals) Goal #5.

*** Students transferring to University of Michigan-Dearborn must complete a three-hour humanities course.

The above program meets all Core Skills requirements (previously General Education Goals).



FIRE TECHNOLOGY

FIRE TECHNOLOGY (ASSOCIATE DEGREE)

(Schoolcraft Program code # AAS.00177)

Extinguishing fires places increasing demands on firefighters. No longer is directing a water stream on a burning building adequate. With the increase in hazardous materials on properties and the variety of synthetic building materials, firefighting has become an art, requiring specialized training with an emphasis on analysis and decision-making skills. It takes a team effort and a wealth of knowledge to fight fires today.

Recognizing the need for more highly skilled firefighters, many municipalities now require additional education for their employees. The curriculum developed for the associate in applied science degree program combines lecture with hands-on activities to prepare the student to respond to a variety of emergencies. Specialists in the field provide valuable input on both content and methodology.

The Fire Technology Associate Degree Program is designed for students who wish to attend part-time. The student who successfully completes the requirements for this program and meets all Core Skills requirements (previously General Education Goals) qualifies for an Associate in Applied Science Degree with emphasis in Fire Technology.

FIRST YEAR Fall Semester

ENG 100	Communication Skills.....	3
FIRE 112	Firefighter 1—Basic Fire Suppression.....	10
ELECTIVE*	.....	3-4
		16-17

Winter Semester

ENG 116	Technical Writing.....	3
FIRE 119	Firefighter 2—Advanced Fire Suppression	10
BUS 105	Business Mathematics.....	3
FIRE**	Special Topics	1
		17

SECOND YEAR Fall Semester

EMT 107	Emergency Medical Technology—Basic.....	10.5
CIS 105	Computer Orientation	1
HUM 106	Introduction to Art and Music.....	1
ELECTIVE*	.....	3-4
		15.5-16.5

Winter Semester

FIRE 200	Fire and Arson Investigation.....	4
FIRE 128	Firefighting Hydraulics and Water Supply.....	4
POLS 105	Survey of American Government	3
PSYCH 153	Human Relations.....	3
QM 106	Introduction to Quality Systems	3
		17

PROGRAM TOTAL 65.5-67.5 CREDITS

* Recommended Electives: CJ 104, FIRE 130, FIRE 135, FIRE 205, FIRE 207, SOC 210.

**Special Topics

FIRE 141	Special topics—Incident Command System.....	1
FIRE 142	Terrorism Awareness	1

The above program meets all Core Skills requirements (previously General Education Goals).

FIRE TECHNOLOGY (ASSOCIATE DEGREE WITH ACADEMY)

(Schoolcraft program code # AAS.00177)

The Fire Technology Associate Degree with Academy is designed for students who wish to attend full time. The student who successfully completes the requirements for this program and meets all Core Skills requirements (previously General Education Goals) qualifies for an Associate in Applied Science Degree with emphasis in Fire Technology.

FIRST YEAR

Fall Semester

FIRE 124	Fire Academy	20
		20

Winter Semester

ENG 100	Communication Skills.....	3
EMT 107	Emergency Medical Technology—Basic.....	10.5
CIS 105	Computer Orientation	1
HUM 106	Introduction to Art and Music.....	1
		15.5

SECOND YEAR

Fall Semester

ENG 116	Technical Writing.....	3
BUS 105	Business Mathematics.....	3
ELECTIVE*	.....	3-4
FIRE 200	Fire and Arson Investigation.....	4
		13-14

Winter Semester

FIRE 128	Firefighting Hydraulics and Water Supply.....	4
POLS 105	Survey of American Government	3
PSYCH 153	Human Relations.....	3
QM 106	Introduction to Quality Systems	3
ELECTIVE*	.....	3-4
FIRE**	Special Topics	1
		17-18

PROGRAM TOTAL 65.5-67.5 CREDITS

* Recommended Electives: CJ 104, FIRE 130, FIRE 135, FIRE 205, FIRE 207, SOC 210.

**Special Topics

FIRE 141	Special Topics—Incident Command System.....	1
FIRE 142	Special Topics—Terrorism Awareness.....	1

The above program meets all Core Skills requirements (previously General Education Goals).

FIREFIGHTER TECHNOLOGY (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00149)

The Firefighter Technology Program provides career training for fire protection technicians. The program is offered in cooperation with the Michigan Fire Fighters Training Council and focuses on meeting the needs of fire service personnel. It is designed for students who are currently employed by Michigan Fire Marshal-recognized fire departments, are currently seeking employment, and/or are volunteers in recognized fire districts. All courses meet the state-mandated requirements for preparing students to take the state exam for certification as entry-level fire fighters.

All of the fire certificate courses require students to attain an average of 70% or better on test scores and to score at least 70% on their final exam to receive a passing grade of 2.0. The EMT course requires that a student achieve an 80% or higher to be eligible to receive a certificate of completion and be eligible for state licensing. Practical skills in both areas must be passed at stated proficiency levels to successfully complete each course and be recommended for the state certification exams. Students who successfully complete the requirements for this program qualify for a Firefighter Technology Certificate.

FIRST YEAR

Fall Semester

FIRE 112 Firefighter 1—Basic Fire Suppression..... 10
10

Winter Semester

FIRE 119 Firefighter 2—Advanced Fire Suppression 10
10

Spring Session

EMT 107 Emergency Medical Technology—Basic..... 10.5
10.5

PROGRAM TOTAL 30.5 CREDITS

(Alternate) FIRST YEAR

Fall Semester

FIRE 124 Fire Academy 20

Winter Semester

EMT 107 Emergency Medical Technology—Basic..... 10.5



HEALTH INFORMATION TECHNOLOGY

HEALTH INFORMATION TECHNOLOGY (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00153)

The Health Information Technology Program is designed for the full-time or part-time student. The program coordinates classroom, laboratory and off-campus experience in a variety of healthcare facilities, such as acute care hospital, ambulatory care center, mental health facility and other health related facilities. The off-campus activities include supervised, professional practice assignments. The student gains experience in applying knowledge to technical procedures in health information systems.

The program will prepare the student to be a Health Information Technician. The technician is responsible for performing tasks related to the use, analysis, validation, presentation, abstracting, coding, storage, security, retrieval, quality measurement and control of healthcare data in a medical record and/or computer-based patient record.

The Health Information Technician is detail oriented and recognizes the business aspects of healthcare. The technician will have a strong interest in activities, such as assisting medical staff in evaluating quality of healthcare, safeguarding the confidentiality of medical records and utilizing healthcare data.

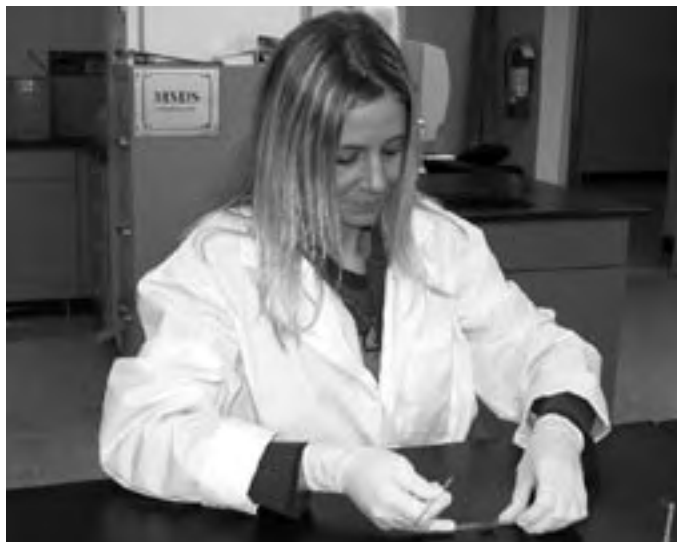
Health Information Technology courses should be taken in accordance with prerequisites, a minimum grade of 2.0 is required. Graduates are eligible to take the Registered Health Information Technician (RHIT) examination.

Students who satisfactorily complete the Health Information Technology curriculum and all Core Skills requirements (previously General Education Goals) qualify for an Associate in Applied Science Degree.

The Health Information Technology Program is accredited by the Commission on the Accreditation of Allied Health Educational Programs (CAAHEP) in cooperation with the Council on Accreditation of the American Health Information Management Association (AHIMA).

For more information about accreditation please contact:

American Health Information Management Association
(AHIMA)
233 N. Michigan Ave., Suite 2150
Chicago, Illinois 60611-5519
312-233-1100
www.ahima.org



FIRST YEAR

Fall Semester

HIT 104*	Medical Terminology.....	4
HIT 109*	Principles Health Information Management 1.....	3
BIOL 236**	Human Anatomy and Physiology.....	5
ENG 101	English Composition.....	3
CIS 120	Software Applications for Microcomputer.....	3
		18

Winter Semester

HUM 106	Introduction to Art and Music.....	1
HIT 111	ICD-9-CM Classification.....	3
HIT 156	Clinical Affiliation 1.....	2
HIT 154	Health Record Practicum.....	3
ENG 102	English Composition.....	3
COMA 103	Fundamentals of Speech.....	3
HIT 112	Basic Laboratory and Diagnostic Tests.....	2
HIT 114	Pharmacology for Health Professionals.....	2
		19

Spring/Summer Session

BUS 105	Business Mathematics.....	3
HIT 271	Human Diseases.....	4
		7

SECOND YEAR

Fall Semester

HIT 210	Principles of Health Information Management 2.....	3
HIT 217	Quality Management in Healthcare.....	2
HIT 216	Health Care Delivery Systems.....	2
HIT 218	Basic Ambulatory Coding.....	3
HIT 257	Clinical Affiliation 2.....	4
POLS 105	Survey of American Government.....	3
		17

Winter Semester

HIT 213	Health Information Technology Seminar.....	1
HIT 219	Organization and Management.....	2
HIT 220	Legal Aspects of Health Information.....	3
HIT 226	Intermediate ICD-9-CM Coding.....	3
HIT 228	Intermediate Ambulatory Coding.....	3
HIT 258	Clinical Affiliation 3.....	2
PSYCH 153	Human Relations.....	3
		17

PROGRAM TOTAL 78 CREDITS

* These courses may be taken prior to admission to the Health Information Technology Program, according to prerequisites.

** Students desiring transfer credit should substitute BIOL 237 & BIOL 238 and may select PSYCH 201 instead of PSYCH 153.

The above program meets all Core Skills requirements (previously General Education Goals).



HEALTH—CODING SPECIALIST (CERTIFICATE)

(Schoolcraft program code # 1YC.00240)

The Coding Specialist Program will prepare a student to re-view and analyze health records to identify relevant diagnoses and procedure for patient services in the inpatient, ambulatory and/or ancillary setting. The student will practice translating diagnostic and procedural phrases utilized by healthcare providers into coded form.

In the program, students apply the following skills:

- Coding of inpatient diagnoses and procedures using International Classification of Diseases (ICD-9-CM).
- Coding of ambulatory setting procedures and services using Current Procedural Terminology (CPT).
- Reading and interpreting health record documentation to identify all diagnoses and procedures that affect the current inpatient stay/outpatient encounter visit.
- Applying approved coding guidelines to assign and sequence the correct diagnosis; procedure codes for hospital inpatient and outpatient services.

Minimum grade of 2.0 is required for progression to the next Health Information Technology course. A minimum grade of 2.0 is required for the basic science course.

The coder can be employed in hospital departments such as health information services (medical records), quality management, professional fee services, radiology, emergency room, outpatient/ambulatory surgery, ancillary services, and specialty physician clinics. Coders also work as independent contractors, consultants and trainers. The coding professional is employed by insurance companies, government agencies, health maintenance organizations and other facilities involved with various aspects of the reimbursement process of health claims.

The curriculum in the Coding Specialist Program will allow the student to select the Health Information Technology Associate Degree Program as a career path.

The student who satisfactorily completes the Coding Specialist curriculum qualifies for a Certificate of Program Completion.

FIRST YEAR

Fall Semester

BIOL 236**	Human Anatomy and Physiology	5
HIT 104*	Medical Terminology	4
HIT 109*	Principles of Health Information Management 1....	3
		12

Winter Semester

HIT 111	ICD-9-CM Classification	3
HIT 271	Human Diseases.....	4
		7

SECOND YEAR

Fall Semester

HIT 112	Basic Laboratory and Diagnostic Tests.....	2
HIT 114	Pharmacology For Health Professionals.....	2
HIT 218	Basic Ambulatory Coding	3
		7

Winter Semester

HIT 226	Intermediate ICD-9-CM Coding.....	3
HIT 228	Intermediate Ambulatory Coding	3
		6

Spring/Summer

HIT 230	ICD-9-CM Coding Practicum.....	2
HIT 231	Ambulatory Coding Practicum	2
		4

PROGRAM TOTAL 36 CREDITS

* These courses may be taken prior to admission to the Health Coding Specialist Certificate, according to prerequisites.

** Students desiring transfer credit should substitute BIOL 237 & BIOL 238.



LASER TECHNOLOGY

LASER TECHNOLOGY (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00059)

Laser Technology is one of several careers in technology that are characterized by involvement with electronics, mechanics and digital logic. The basic elements of scientific theory and principles underlying the elements of laser systems are covered in this certificate program. Technicians will learn about the laser parameters associated in metal fusion; material cutting, shaping, piercing; biomedical surgery and heat treating of various materials.

Laser technicians are specialists who install, construct, operate, test, repair, and maintain systems that incorporate electronics power supplies and optics on laser application for business, industry, and medicine.

Students who complete the Laser Certificate qualify for a certificate of program completion.

FIRST YEAR

Fall Semester

LASR 103	Laser Concepts.....	4
ELECT 127	DC Circuits and Mathematical Modeling	5
MATH 113	Intermediate Algebra for College Students.....	4
		13

Winter Semester

LASR 104	Laser Optics and Components	5
ELECT 128	AC Circuits and Mathematical Modeling	5
CAD 101	Introduction to Computer Aided Drafting.....	3
		13

SECOND YEAR

Fall Semester

LASR 232	Laser Systems and Applications 1	4
ELECT 237	Programmable Logic and Industrial Controls.....	4
		8

PROGRAM TOTAL 34 CREDITS

MANUFACTURING

MANUFACTURING FOR QUALITY PRODUCTION (ASSOCIATE DEGREE)

(Schoolcraft program code #AAS.00135)

The Manufacturing for Quality Production Program is designed to provide students with growth and development in a variety of manufacturing processes, to expose them to materials and methods of production and make them aware of planning and quality requirements of the various related processes. It should enable graduates to seek employment as management trainees or technicians to support manufacturing engineers in design and development activities.

Protective shop clothing and eye protection supplies required for the program will be purchased by the student.

The student who successfully completes the requirements for the Manufacturing for Quality Production program and meets all Core Skills requirements (previously General Education Goals) qualifies for an Associate in Applied Science Degree.

Curriculum Core Courses	
CAD 103	Engineering Graphics (Goal #5)..... 3
CAM 102	Introduction to Computer Numerical Control (CNC) 3
CAM 103	Computer Numerical Control Programming 3
CAM 205	CAD/CAM-Computer Aided Machining..... 3
ENGR 100	Introduction to Engineering and Technology (Goal #3)..... 3
MET 102	Introduction to Materials Science 3
MET 114	Engineering Materials..... 3
MFG 102	Manufacturing Processes 3
MFG 103	Manufacturing Theory and Machine Operation..... 3
MFG 180	Industrial Entrepreneurship..... 2
MFG 241	Quantitative Metrology 3
MFG 243	Manufacturing Systems Analysis..... 3
QM 108	Quality Statistical Methods 3
WELD 113	Shielded Metallic Arc Welding (S.M.A.W.) 3
ELECTIVE	Technical Electives 3-4
	44-45

Core Skills Courses

(Previously General Education Goals)

ENG 100*	Communication Skills (Goal #2 & #3)..... 3
ENG 106*	Business English..... 3
HUM 106*	Introduction to Art and Music (Goal #8 & #10)..... 1
MATH 113	Intermediate Algebra for College Students (Goal #1)..... 4
POLS 105*	Survey of American Government (Goal #4 & #9)..... 3
PSYCH 153*	Human Relations (Goal #7 & Goal #9)..... 3

17

* Other courses meeting the Core Skills (previously General Education Goals) may be substituted.

Curriculum Electives

CAD 105	Mechanical Engineering Drawing 4
DSGN 113	Industrial Schematics With Animation 3
ELECT 237	Programmable Logic and Industrial Controls..... 4
LASR 103	Laser Concepts..... 4

PROGRAM TOTAL 61 CREDITS

The above program meets all Core Skills requirements (previously General Education Goals).

MARKETING—APPLIED MANAGEMENT

MARKETING AND APPLIED MANAGEMENT (ASSOCIATE DEGREE)

(Schoolcraft program code #AAS.00009)

The Schoolcraft College Marketing and Applied Management Program produces well-trained individuals who work in the distribution of goods and services. These individuals serve the customer and represent the company to the consumer. Therefore, graduates must be able to think, communicate and apply a knowledge of business.

Career opportunities are available in occupations ranging from buying and selling to distribution management.

Students who satisfactorily complete the Marketing and Applied Management curriculum and all Core Skills requirements (previously General Education Goals) qualify for an Associate in Applied Science Degree.

FIRST YEAR

Fall Semester

BUS 101	Introduction to Business 3
BUS 122	Advertising..... 3
BUS 161	Retail Principles and Practices 3
ACCT 103	Introduction to Accounting 4
or	
ACCT 201	Principles of Accounting..... 4
ENG 101	English Composition..... 3
	16

Winter Semester

BUS 105	Business Mathematics..... 3
BUS 120	Principles of Salesmanship 3
BUS 162	Retail Merchandising 3
ENG 102	English Composition..... 3
or	
ENG 106	Business English 3
PSYCH 153	Human Relations..... 3
or	
PSYCH 201	General Psychology 4
	15-16

SECOND YEAR

Fall Semester

BUS 217	Business Management 3
BUS 220	Supervision 3
COMA 103	Fundamentals of Speech 3
ECON 103	Introductory Economics..... 3
or	
ECON 201	Principles of Economics 4
ELECTIVE*	..... 2-3
	14-16

Winter Semester

CIS 120	Software Applications for the Microcomputer 3
BUS 226	Principles of Marketing..... 3
BUS 230	Human Resource Management..... 3
POLS 105	Survey of American Government 3
ELECTIVE*	..... 3
	15

PROGRAM TOTAL 60-63 CREDITS

* Suggested electives: BUS 204, 205, 208; CIS 180, 215; ENG 116; or OIS 100.

The above program meets all Core Skills requirements (previously General Education Goals).

MEDICAL ASSISTING

MEDICAL ASSISTING (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00026)

The Medical Assisting Program is open to students officially admitted to the program.

The Medical Assisting Program is a one-year certificate program. Students may elect to complete the program in three semesters (Fall, Winter, and Spring/Summer) or on a part-time basis. The program is designed to coordinate classroom and laboratory experience with practical experience in a healthcare facility such as the physician's office.

Medical assistants are multiskilled allied health professionals who perform a wide range of roles in physicians' offices, clinics and other healthcare settings. They are proficient in a multitude of clinical and administrative tasks and are widely viewed by doctors as vital members of the healthcare delivery team.

Students are required to achieve a grade of 2.0 or better for all courses. Academic and medical assisting courses must be completed by the end of the Winter semester to be eligible for placement in the Office Practicum offered in the Spring.

The Office Practicum is an externship that is structured to provide experiences in applying knowledge, in performing administrative and clinical procedures and in developing professional attitudes for interacting with other professionals and consumers in a healthcare facility.

Students who satisfactorily complete the required curriculum qualify for a certificate of Program Completion.

The Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) on recommendation of the Curriculum Review Board of the American Association of Medical Assistants Endowment (AAMAE). Graduates are eligible to take the Certified Medical Assistant (CMA) examination conducted by the certifying board of the American Association of Medical Assistants.

For more information about accreditation please contact:

Commission on Accreditation of Allied Health
Education Programs (CAAHEP)
35 West Wacker Drive, Suite 1970
Chicago, Illinois 60601-2208
312-553-9355
www.aama-ntl.org



FIRST YEAR

Fall Semester

MA 134*	Medical Insurance Coding	3
MA 110	Phlebotomy	4
MA 140*	Medical Office Procedures.....	3
HIT 104*	Medical Terminology	4
CIS 105*	Computer Orientation	1
BIOL 105*	Elementary Human Anatomy and Physiology 1.....	4
		19

Winter Semester

HIT 271	Human Diseases.....	4
MA 174	Medical Laboratory Techniques.....	4
MA 180	Medical Office Clinical Procedures.....	4
MA 155*	Medical Insurance Billing.....	3
MT 108	Physician Office Transcription.....	2
PSYCH 153*	Human Relations.....	3
		20

Spring/Summer Session

ENG 101*	English Composition.....	3
MA 195	Office Practicum	3
		6

PROGRAM TOTAL 45 CREDITS

* These courses may be taken prior to admission to the Medical Assisting Program, according to prerequisites.

MEDICAL TRANSCRIPTION

MEDICAL TRANSCRIPTION (ONE-YEAR CERTIFICATE)

(Schoolcraft program code #1YC.00029)

The Medical Transcription Program is open to students officially admitted to the program.

The Medical Transcription Program prepares the student for entry-level employment as a medical transcriptionist in a variety of healthcare settings or as a self-employed transcriptionist. The medical transcriptionist is a specialist who interprets and transcribes dictation by physicians and other healthcare professionals in order to document patient care.

In the program students apply the following:

- Typing and word processing skills.
- Spelling, editing, and proofreading.
- Medical terminology used in medical reports, surgical procedures, drugs, instruments and laboratory tests.
- Terms related to human anatomy, physiology and pathophysiology.
- English grammar, structure and style.
- Medical transcription forms, styles and practices.
- Medical and surgical reference materials.

The courses designated as Medical Transcription are designed to give the student experience transcribing dictation from medical specialties such as Cardiology, Dermatology, Endocrinology, Gastroenterology, Neurology, Obstetrics and Gynecology, Ophthalmology, Orthopedics, Otorhinolaryngology, Pulmonary Medicine, Urology, Pathology, Radiology and other healthcare dictation. Students may elect to complete the program in three semesters (Fall, Winter, and Spring) or on a part-time basis.

Students who satisfactorily complete the required curriculum qualify for a Certificate of Program completion.

Upon completion of two-three years of experience in performing medical transcription in a variety of medical and surgical specialties, a qualified medical transcriptionist may take the certification examination offered by the American Association of Medical Transcription. Successful completion of the examination entitles an individual to be recognized as a Certified Medical Transcriptionist (CMT).

FIRST YEAR

Fall Semester

BIOL 105*	Elementary Human Anatomy and Physiology 1	4
HIT 104*	Medical Terminology	4
OIS 165*	Microsoft Word for Windows	3
MT 108	Physician Office Transcription	2
MT 106*	Principles of Medical Transcription	2
		15

Winter Semester

HIT 112	Basic Laboratory and Diagnostic Tests	2
HIT 114	Pharmacology for Health Professionals	2
HIT 271	Human Diseases	4
MT 157	Medical Transcription Seminar	1
MT 158	Medical Transcription 2	5
		14

Spring Session

MT 159	Medical Transcription 3	5
		5

PROGRAM TOTAL 34 CREDITS

* These courses may be taken prior to admission to the Medical Transcription Program, according to prerequisites.

METALLURGY

METALLURGY AND MATERIALS SCIENCE (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00184)

The Metallurgy and Materials Science Program has been specifically designed to accommodate most areas of industry associated with research, development, manufacturing and materials control. Carefully selecting electives will prepare students for specialization. Students interested in the laboratory control of processing may wish to select electives in welding, fabrication, manufacturing processes or quality control. Likewise, students interested in development or industrial research may wish to complete electives in materials or physical science, design or computer technology.

Metallurgy and Materials Science graduates have knowledge of the philosophy of metallic and nonmetallic materials used in industry and can apply principles basic to scientific laboratory investigation, research, product development and process control.

Students who satisfactorily complete the Metallurgy and Materials Science curriculum and all Core Skills requirements (previously General Education Goals) qualify for an Associate in Applied Science Degree. Students seeking transfer to a baccalaureate program should request transfer guides provided by the department.

Curriculum Core Courses

CAD 103	Engineering Graphics (Goal #5)	3
ENGR 100	Introduction to Engineering and Technology	3
MET 102	Introduction to Materials Science	3
MET 114	Engineering Materials	3
MET 120	Hazardous Materials Management	2
MET 152	Structure and Properties Laboratory	3
MET 211	Physical Metallurgy Structures	3
MET 215	Mechanical Properties of Metals	3
MET 217	Computer Applications for Materials Science	3
MET 271	Corrosion and Corrosion Analysis	4
MET 280	Special Problems in Materials Science	4
MFG 102	Manufacturing Processes	3
MFG 180	Industrial Entrepreneurship	2
WELD 113	Shielded Metallic Arc Welding	3
ELECTIVE	Technical Elective	3
WELD 262	Welding Metallurgy	3
		48

Core Skills Courses

(Previously General Education Goals)

ENG 100	Communication Skills	3
ENG 106	Business English	3
HUM 106	Introduction to Art and Music	1
MATH 113	Intermediate Algebra for College Students	4
POLS 105	Survey of American Government	3
PSYCH 153	Human Relations	3
		17

* Other courses meeting the Core Skills (previously General Education Goals) may be substituted.

Curriculum Electives

CAM 102	Introduction to Computer Numerical Control (CNC)	4
LASR 103	Laser Concepts	4
LASR 104	Laser Optics and Components	4
MET 160	Composite Materials	3
MFG 243	Manufacturing Systems Analysis	3

PROGRAM TOTAL 61-62 CREDITS

The above program meets all Core Skills requirements (previously General Education Goals).

METALLURGY—APPLIED PHYSICAL (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00124)

The Applied Physical Metallurgy Certificate Program is designed to provide people currently employed in the field with an opportunity to reinforce skills and acquire academic foundations necessary for advancement in the laboratory and related process situations. The program is oriented to property, process and structure areas of study and is designed and scheduled with consideration for part-time students.

Students who satisfactorily complete the Applied Physical Metallurgy Certificate curriculum qualify for a Certificate of Program completion.

FIRST YEAR

Fall Semester

MET 102	Introduction to Materials Science	3
MFG 102	Manufacturing Processes	3
QM 106	Introduction to Quality Systems	3
		9

Winter Semester

WELD 113	Shielded Metallic Arc Welding (S.M.A.W.)	3
MET 114	Engineering Materials	3
MET 120	Hazardous Materials Management	2
		8

SECOND YEAR

Fall Semester

MET 152	Structure and Properties Laboratory	3
MET 211	Physical Metallurgy Structures	3
MFG 243	Manufacturing Systems Analysis	3
		9

Winter Semester

ELECTIVE	MET	3
MET 215	Mechanical Properties of Metals	3
MET 280	Special Problems in Materials Science	4
		10

PROGRAM TOTAL 36 CREDITS

MATERIALS SCIENCE (POST-ASSOCIATE CERTIFICATE)

(Schoolcraft program code # PAC.00179)

This post-associate certificate in Materials Science is designed for working professionals who have industrial experience and/or training in the materials science field and who wish to study current technologies applied to laboratory practice and other materials-related endeavors.

Completion of this program will enhance students' abilities to meet the needs of current and changing industrial technologies in metallurgical and materials science applications, processing, and control environments. It will also provide support background for managerial and technical personnel who have direct responsibilities in industrial materials operations and planning. These courses are also intended to meet requirements for current and future professional certification.

Prior to admission to this program, students must have already completed a minimum of an accredited Associate Degree in Applied Science.

The post-associate certificate is awarded upon successful completion of 15 credit hours (exact number may vary slightly due to credit value or content of courses).

Fall Semester

MET 211	Physical Metallurgy Structures	3
MET 215	Mechanical Properties of Metals	3
MET ELECTIVE	.....	3

Winter Semester

MET 280	Special Problems in Materials Science	4
MET ELECTIVE	.....	3

Completion of a minimum of 15 credit hours is essential.

Courses can be taken through independent study.

A student may choose an applicable 200-level elective.



MUSIC

MUSIC FOUNDATIONS CERTIFICATE (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00162)

Successful students completing this certificate will be able to notate all intervals, simple rhythmic patterns and basic chord progressions. Students will have a good general knowledge of musical styles from the 1600s to the present day; will have gained experience in performing publicly in ensembles; and will also have developed elementary training as soloists in voice or as instrumentalists.

Students who satisfactorily complete the curriculum qualify for a Certificate of Program Completion.

Fall Semester

MUSIC 104	Basic Materials in Music Theory	3
MUSIC 121 or 131	Class or Private (Applied) Piano.....	2
MUSIC 105	Music Appreciation	3
MUSIC 124 or 117 or 141	Music Ensemble.....	1-2
MUSIC 133 or 135	Applied Music—Voice or Instrument	2
ELECTIVE	English Literature or Poetry, or Art Appreciation Suggested	3
HUM 106	Introduction to Art and Music.....	1
		15-16

Winter Semester

MUSIC 164 or 165	Music History 1 or 2	3
MUSIC 122 or 133	Class or Private (Applied) Piano.....	2
MUSIC 127 or 118 or 142	Music Ensemble.....	1-2
MUSIC 134 or 136	Applied Music—Voice or Instrument	2
MUSIC 171	Music Technology 1	3
ELECTIVE	English Literature or Poetry, Art Appreciation Suggested	3
		14-15

PROGRAM TOTAL 29-31 CREDITS

MUSIC INTERMEDIATE CERTIFICATE (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00163)

Successful students completing this certificate will be able to notate moderately difficult rhythmic patterns and moderately difficult chord progressions. Students will have developed a more specific knowledge of music from the 1600s to the present day. Students will have gained experience in performing publicly in ensembles, and will have developed technical and musical skills as well as experience to perform as soloists in voice or as instrumentalists in public recitals and concerts.

Students who satisfactorily complete the curriculum qualify for a Certificate of Program Completion.

Fall Semester

MUSIC 137	Sight Singing and Ear Training 1	2
MUSIC 164 or 165	Music History 1 or 2	3
MUSIC 153	Music Theory	3
MUSIC 224, or 217 or 241	Music Ensemble	1-2
MUSIC 171	Music Technology 1	3
MUSIC 231	Applied Music—Piano	2
MUSIC 233 or 235	Applied Music—Voice or Instrument	2
		16-17

Winter Semester

MUSIC 138	Sight Singing and Ear Training 2	2
MUSIC 164 or 165	Music History 1 or 2	3
MUSIC 154	Music Theory	3
MUSIC 227 or 218 or 242	Music Ensemble	1-2
MUSIC 232	Applied Music—Piano.....	2
MUSIC 234 or 236	Applied Music—Voice or Instrument	2
ELECTIVE	English Literature, Poetry, or Art Appreciation Suggested	3
		16-17

PROGRAM TOTAL 30-32 CREDITS

PIANO TEACHER CERTIFICATE

(Schoolcraft program code # 1YC.00115)

The Piano Teacher Certificate Program is designed for pianists with sufficient background to pursue professional careers as private piano teachers. The curriculum is structured to provide instruction in piano teaching materials and techniques as well as music theory and history. In addition, students are given numerous opportunities to observe and teach children enrolled in group piano classes on campus. (Two supervised teaching sessions of children are required.)

In order to enter the Piano Teacher Certificate Program, each applicant must audition to demonstrate an appropriate level of musicianship.

Upon completion of the required curriculum, and upon recommendation of the music faculty, students are awarded Certificates of Program completion. Applied Music has an added fee. Recommended as a two-year, part-time program. Listed below is the suggested sequence.

FIRST YEAR

Fall Semester

MUSIC 131	Applied Music—Piano.....	2
MUSIC 164	Music History 1.....	3
MUSIC 153	Music Theory	3
MUSIC 143	Practice Teaching and Practicum in Piano Teaching 1	2
		10

Winter Semester

MUSIC 132	Applied Music—Piano.....	2
MUSIC 165	Music History 2.....	3
MUSIC 154	Music Theory	3
MUSIC 144	Practice Teaching and Practicum in Piano Teaching 2	2
		10

SECOND YEAR

Fall Semester

MUSIC 231	Applied Music—Piano.....	2
MUSIC 137	Sight Singing and Ear Training 1	2
MUSIC 247	Piano Teaching Techniques and Materials 1	3
MUSIC 201	Keyboard Skills for Piano Teachers 1	2
MUSIC 243	Practice Teaching and Practicum in Piano Teaching 3	2
		11

Winter Semester

MUSIC 232	Applied Music—Piano.....	2
MUSIC 138	Sight Singing and Ear Training 2	2
MUSIC 257	Piano Teaching Techniques and Materials 2	3
MUSIC 202	Keyboard Skills for Piano Teachers 2	2
MUSIC 244	Practice Teaching and Practicum in Piano Teaching 4	2
		11

PROGRAM TOTAL 42 CREDITS



MUSIC—RECORDING TECHNOLOGY (ASSOCIATE DEGREE)

(Schoolcraft program code #AAS.00244)

The Recording Technology Associates Degree is designed to prepare the student for transfer to institutions offering a bachelor’s degree in Recording Engineering or for apprenticeships at recording studios and various media venues. The program will teach the student the fundamentals and techniques relative to live concert and studio recordings as well as professional sound reinforcement.

Understanding the musical perspective is an important focus of the program. The required music courses will assist the recording engineer in a better understanding of what the performing musician is experiencing and will in turn improve the recording outcome.

Technological changes directly related to the recording industry are frequently introduced. The program is committed to staying current and will help the student understand new directions in the technology.

Students who satisfactorily complete the Recording Technology curriculum and all Core Skills requirements (previously General Education Goals) qualify for an Associate in Applied Science Degree.

FIRST YEAR

Fall Semester

MUSIC 117, 124, or 141 Music Ensemble	1-2
MUSIC 121 Class Piano	2
MUSIC 173 Basic Studio Techniques 1	3
MATH 113 Intermediate Algebra for College Students	4
COMA 103 Fundamentals of Speech	3
ENG 101 English Composition	3
	16-17

Winter Semester

HUM 106 Introduction to Art and Music	1
MUSIC 104 Basic Materials in Music Theory	3
MUSIC 123 Keyboard Skills for Recording Engineers	1
MUSIC 174 Basic Studio Techniques 2	3
PHYS 123 Applied Physics	5
ENG 102 English Composition	3
	16

SECOND YEAR

Fall Semester

MUSIC 171 Music Technology	3
MUSIC 273 Advanced Studio Techniques 1	3
MUSIC 137 Sight Singing and Ear Training 1	2
ELECT 119 Basic Measurement and Reporting Skills	3
PSYCH 201 General Psychology	4
	15

Winter Semester

MUSIC 138 Sight Singing and Ear Training 2	2
MUSIC 105 Music Appreciation	3
or	
MUSIC 149 Popular Music Culture in America	3
MUSIC 130 Ear Training for Recording Engineers	2
MUSIC 172 Electronic Music—Intermediate MIDI	3
MUSIC 274 Advanced Studio Techniques 2	3
GEOG 133 World Regional Geography	4
	17

PROGRAM TOTAL 64-65 CREDITS

The above program meets all Core Skills requirements (previously General Education Goals).

MUSIC—RECORDING TECHNOLOGY (ONE-YEAR CERTIFICATE)

(Schoolcraft program code #1YC.00144)

The Recording Technology Certificate will provide the student with skills important to the apprentice at recording studios and for quality home studio production. The program will prepare the student to understand the functions of audio signals and the sound reproduction equipment. The program will also acquaint them with emerging audio formats.

Listening in the manner of a recording engineer will be stressed as well as some fundamental music skills important to the musicians point of view.

Technological changes directly related to the recording industry are frequently introduced. The program is committed to staying current and will help the student understand new directions in the technology.

Students who satisfactorily complete the Recording Technology curriculum qualify for a Certificate of Program Completion.

Fall Semester

MUSIC 104 Basic Materials in Music Theory	3
MUSIC 171 Music Technology	3
MUSIC 173 Basic Studio Techniques 1	3
MUSIC 121 Class Piano	2
ELECT 119 Basic Measurement and Reporting Skills	3
	14

Winter Semester

MUSIC 123 Keyboard Skills for Recording Engineers	1
MUSIC 130 Ear Training for Recording Engineers	2
MUSIC 172 Electronic Music—Intermediate MIDI	3
MUSIC 174 Basic Studio Techniques 2	3
MUSIC 105 Music Appreciation	3
	12

Spring Session

MUSIC 273 Advanced Studio Techniques 1	3
MUSIC 274 Advanced Studio Techniques 2	3
	6

PROGRAM TOTAL 32 CREDITS



NURSING—ADN

NURSING—REGISTERED (ASSOCIATE DEGREE)

(Schoolcraft program code #AAS.00000)

The Associate Degree Nursing Program prepares students who have demonstrated the potential to fulfill the requirements for the Associate in Applied Science Degree for entry level nursing practice. Schoolcraft College Nursing Programs have uniquely structured pre-admission requirements that are reviewed each year. It is essential that you contact the Admissions Office for a current copy of the specific information sheet for the steps and prerequisites to enter the program of choice.

Students are admitted once a year, at the opening of the Fall Semester. After a student is accepted into the program, courses are scheduled into four 15-week semesters and a 7-week Spring Session. Nursing courses must be taken in sequence and a minimum grade of 2.0 is required for progression to the next nursing course. A minimum grade of 2.5 is required for the basic science courses. Academic courses other than nursing must be completed by the completion of the nursing courses. Students must furnish and maintain uniforms, lab coats, or other appropriate apparel required by the institution they are assigned for clinical instruction. Clinical assignments will be completed in acute care and community settings. Computer lab use is required in this program. See “Academic Computing Labs” in this catalog for policy requirements.

The student who satisfactorily completes the Associate Degree Nursing curriculum and all Core Skills requirements (previously General Education Goals) qualifies for an Associate in Applied Science Degree and is eligible to apply to write the National Council Licensure Examination for Registered Nursing (NCLEX-RN). This Nursing Program is offered at the Livonia Campus.

For more information about accreditation and licensure please contact:

State of Michigan Department of Community Health
 Bureau of Health Professionals
 Board of Nursing
 P.O. Box 30670
 Lansing, MI 48909
 517-373-4674
 517-335-0918
 www.michigan.gov

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES

BIOL 236*	Human Anatomy and Physiology	5
ENG 101	English Composition	3
BIOL 243	Microbiology	4
AHE 101	Introduction to Health Care	1
		13

FIRST YEAR

Fall Semester

NURS 116	Fundamentals of Nursing 1	3
NURS 117	Fundamentals of Nursing 2	3
NURS 118	Pharmacology 1	1
PSYCH 201	General Psychology	4
POLS 105	Survey of American Government	3
		14

Winter Semester

NURS 119	Pharmacology 2	1
NURS 120	Health Assessment and Adult Medical— Surgical Nursing 1	4
NURS 121	Adult Medical—Surgical Nursing 2	5
PSYCH 209	Child Psychology	3
		13

Spring Session

NURS 122	Psychiatric—Mental Health Nursing	4
ENG 102	English Composition	3
		7

SECOND YEAR

Fall Semester

SOC 201	Principles of Sociology	3
NURS 211	Nursing Care of Women and Childbearing Families	5
NURS 212	Nursing Care of Children and Families	5
		13

Winter Semester

NURS 213	Adult Medical—Surgical Nursing 3	5
NURS 214	Leadership and Nursing Management of Complex Clients	5
ELECTIVE	Goal #8 Course	1-4
		11-14

PROGRAM TOTAL 71-74 CREDITS

* Students who may transfer to a baccalaureate program should elect the BIOL 237-238 sequence. Please review and follow all course prerequisites. In addition to the above schedule, it is recommended that students take BIOL 115, Nutrition, prior to entering the program.

Note: In addition, COLLS 130, Applied Learning Theory—Nursing, is an available elective for pre-nursing students to develop study skills and success strategies.

The above program meets all Core Skills requirements (previously General Education Goals).

ADVANCED PLACEMENT—MOBILITY OPTION FOR LPNS

The Associate Degree Nursing program offers an advanced placement/mobility option for students who are already Licensed Practical Nurses (LPNs).

Nursing Course Sample Progression for LPN to ADN Option

Spring Session

NURS 122	Psychiatric—Mental Health Nursing	4
----------	-----------------------------------------	---

Summer Session

NURS 130	LPN to RN Transition Course	3
----------	-----------------------------------	---

Fall Semester

NURS 211	Nursing Care of Women and Childbearing Families	5
NURS 213	Adult Medical—Surgical Nursing 3	5

Winter Semester

NURS 212	Nursing Care of Children and Families	5
NURS 214	Leadership and Nursing Management of Complex Clients	5

TOTAL NURSING CREDITS 27

In addition to these nursing courses, LPN to ADN students are required to complete the same supportive courses listed in the sample schedule of courses for the Nursing—ADN program.



NURSING—PRACTICAL

NURSING — LICENSED PRACTICAL (ONE-YEAR CERTIFICATE)

(Schoolcraft program code #1YC.00017)

Practical nursing courses are open only to students who are officially admitted to the Practical Nursing Program.

Courses are designed to provide theory and practice in practical nursing to prepare graduates for entry-level positions in hospitals, nursing homes, clinics, doctors' offices and patients' homes. Courses must be taken in sequence. A minimum grade of 2.0 is required for progression to the next course.

Schoolcraft College Nursing Programs have pre-admission requirements that are reviewed each year. It is essential to contact the Admissions Office for a current copy of prerequisites to enter the program of choice. Students are admitted once a year, at the opening of the fall semester. Courses are scheduled into two 15-week semesters, a 7-week spring session and a 4-week summer session. The Practical Nursing Program is designed to meet requirements for the certificate program.

Students must furnish and maintain uniforms, lab coats or other appropriate apparel required by the institution to which they are assigned for clinical instruction.

Students who satisfactorily complete the Practical Nursing curriculum qualify for a Certificate of Program completion and are eligible to apply to write the National Council Licensure Examination for Practical Nursing. This program is offered at the Livonia Campus.

Graduates of the Practical Nursing program may wish to consider completing a General Studies Associate Degree or the LPN to ADN option at Schoolcraft College.

FIRST YEAR

Fall Semester

AHE 101	Introduction to Health Care	1
PN 111	Fundamentals of Practical Nursing	9
PN 112	Nursing Dynamics	4
BIOL 105	Elementary Human Anatomy and Physiology 1 (PN)	4
		18

Winter Semester

PN 125	Mental Health Nursing	3
PN 124	Nursing Adult Patients	12
		15

Spring Session

PN 126	Maternal and Child Nursing	5
		5

Summer Session

PN 137	Advanced Concepts in Practical Nursing	3
		3

PROGRAM TOTAL 41 CREDITS



OFFICE INFORMATION SYSTEMS

OFFICE ADMINISTRATION (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00133)

The Office Professional, as a member of the office information systems management team, plays an integral role in the successful operation of the organization. In today's information age, the OIS professional functions as the pivotal person in the office communications network.

The Office Administration curriculum is designed to offer courses that enhance students' technical skills, communications skills, and leadership/management skills with an emphasis on the professional work ethic.

The Associate in Applied Science Degree is awarded upon successful completion of this curriculum and all Core Skills (previously General Education Goals) requirements.

FIRST YEAR

Fall Semester

OIS 100	Keyboarding 1	2
OIS 102	Keyboarding 2	2
OIS 195	Time and Project Management	1
ENG 101	English Composition	3
POLS 105	Survey of American Government	3
PSYCH 153	Human Relations	3
or		
PSYCH 201	General Psychology	4
		14-15

Winter Semester

OIS 105	Office Communications and Editing Skills	3
OIS 165	Microsoft Word for Windows	3
CIS 120	Software Applications for the Microcomputer	3
ENG 106	Business English	3
ELECTIVE	Goal #6 Course	3
		15

SECOND YEAR

Fall Semester

OIS 265	Advanced Microsoft Word for Windows	3
OIS 255	Office Procedures	2
ACCT 201	Principles of Accounting	4
COMA 103	Fundamentals of Speech	3
CIS 170	Microsoft Windows	3
HUM 106	Introduction to Art and Music	1
		16

Winter Semester

OIS 185	Business Presentation 1—Fundamental Concepts	3
OIS 260	Office Administration	3
ACCT 202	Principles of Accounting	4
BUS 207	Business Law	3
CIS 180	Spreadsheet Applications—Current Software	3
		16

PROGRAM TOTAL 61-62 CREDITS

The above program meets all Core Skills requirements (previously General Education Goals).

OFFICE SPECIALIST (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00166)

This certificate program focuses on office application software for today’s administrative assistant. Microcomputers and software applications are the center of the technological revolution taking place in today’s business offices.

The student enrolled in the Office Specialist’s program will be prepared to take on broader and more challenging responsibilities in the business world. Successful completion of these courses helps to prepare students for the Microsoft Office Specialist certification exam.

Individuals who successfully complete this program will be prepared to obtain employment as administrative or executive secretaries; software specialists; word processing supervisors and managers.

Students who satisfactorily complete the Office Specialist Certificate Curriculum qualify for a Certificate of Program Completion.

FALL SEMESTER

OIS 105*	Office Communications and Editing Skills.....	3
CIS 115*	Introduction to Computer Based Systems.....	3
OIS 165*	Microsoft Word for Windows	3
OIS 195	Time and Project Management	1
OIS 255*	Office Procedures.....	2
		12

WINTER SEMESTER

OIS 265	Advanced Microsoft Word for Windows	3
CIS 120*	Software Applications for the Microcomputer	3
OIS 185	Business Presentation I—Fundamental Concepts..	3
CIS 225	Database Management Systems for the Microcomputer.....	3
		12

FALL SEMESTER

CIS 122	Microsoft Outlook.....	2
CIS 180	Spreadsheet Applications—Current Software	3
CIS 215	Advanced Software Applications for the Microcomputer.....	3
		8

PROGRAM TOTAL 32

* Courses require a skill level equal to OIS 100. Students not possessing this skill level would be required to take OIS 100 before entering this certificate program.



SMALL BUSINESS MANAGEMENT

SMALL BUSINESS MANAGEMENT (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00011)

The Small Business Management Curriculum offers a well-balanced program of liberal arts courses, general business subjects, electives and the necessary training to meet the challenge of today’s highly competitive business world. The Small Business Management curriculum is designed for those who already own and operate a small business, who are contemplating starting their own small business, or seek employment opportunities as managers in small business.

Students who satisfactorily complete the Small Business Management curriculum and all Core Skills requirements (previously General Education Goals) qualify for an Associate in Applied Science Degree.

Curriculum Core Courses

ACCT 103	Introduction to Accounting	4
or		
ACCT 201	Principles of Accounting	4
BUS 101	Introduction to Business	3
BUS 103	Organizing a Small Business	3
BUS 104	Operating a Small Business	3
BUS 105	Business Mathematics.....	3
BUS 120	Principles of Salesmanship	3
BUS 204	Personal Finance	3
BUS 207	Business Law	3
BUS 217	Business Management (Goal #6).....	3
BUS 220	Supervision	3
BUS 226	Principles of Marketing.....	3
BUS 230	Human Resource Management.....	3
CIS 120	Software Applications for the Microcomputer (Goal # 5)	3
ELECTIVES*	.....	6
		46

* Suggested electives: ACCT 263, BUS 122, 161, 162, 205, 208, CIS 215, ENG 116.

Core Skills Courses

(Previously General Education Goals)

COMA 103	Fundamentals of Speech (Goal #3).....	3
ENG 101	English Composition (Goal #2)	3
ENG 106	Business English (Goal #2).....	3
HUM 106	Introduction to Art and Music (Goal #8 & #10)	1
POLS 105	Survey of American Government (Goal #4 & #9)	3
PSYCH 153	Human Relations (Goal #7 & #9)	3
or		
PSYCH 201	General Psychology (Goal #7 & #9).....	4

16-17

PROGRAM TOTAL 62-63 CREDITS

The above program meets all Core Skills requirements (previously General Education Goals).

THEATRE

THEATRE TRANSFER PROGRAM (ASSOCIATE DEGREE)

(Schoolcraft program code #AA.00042)

The Theatre Program is designed to provide students with a balanced curriculum of theatre and liberal arts courses that will prepare them to transfer. This program includes performance and the technical aspects of theatre, including theory and practical experiences in theatre.

Upon completion of the Theatre program and all Core Skills (previously General Education Goals) the students qualify for an Associate of Arts Degree in Theatre.

FIRST YEAR

Fall Semester

ENG 101	English Composition.....	3
BIOL 101	General Biology.....	4
THEA 120	Theatre Activities.....	1
THEA 208	Acting 1.....	3
THEA 101	Introduction to Theatre.....	3
CIS 105	Computer Orientation.....	1
		15

Winter Semester

ENG 102	English Composition.....	3
THEA 121	Theatre Activities.....	1
THEA 209	Acting 2.....	3
THEA 207	Stagecraft and Lighting.....	3
MATH 113	Intermediate Algebra for College Students.....	4
		14

SECOND YEAR

Fall Semester

THEA 220	Theatre Activities.....	1
COMA 103	Fundamentals of Speech.....	3
HIST 153	Contemporary America—U.S. History.....	3
ENG 245	Introduction to Literature—Drama.....	3
POLS 105	Survey of American Government.....	3
THEA 231	History of Theatre 1.....	3
		16

Winter Semester

THEA 221	Theatre Activities.....	1
THEA 241	Oral Interpretation of Literature.....	3
ENG 248	Introduction to Literature—Shakespeare.....	3
PSYCH 201	General Psychology.....	4
THEA 232	History of Theatre 2.....	3
THEA 204	Stage Makeup.....	2
		16

PROGRAM TOTAL 61 CREDITS

The above program meets all Core Skills requirements (previously General Education Goals).



WELDING TECHNOLOGY

WELDING—FABRICATION (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00127)

There is continued need for persons with the skills to fabricate machinery components and other industrial equipment while working under the supervision of a welding journey person. The Welding—Fabrication Program prepares students for employment under classifications such as welders and/or industrial fabricators. The program includes joining materials, using weldments, special techniques, equipment and other recognized fastening methods. Students acquire skills in the broad categories of welding and fabrication with added emphasis upon support technical subjects.

Students are required to purchase protective clothing, protective (safety) shoes and eye protection equipment.

Students who satisfactorily complete the Welding—Fabrication Certificate curriculum qualify for a Certificate of Program completion.

ONE-YEAR PROGRAM

MET 102	Introduction to Materials Science.....	3
WELD 109	Algebra.....	2
WELD 113	Shielded Metallic Arc Welding (S.M.A.W).....	3
WELD 115	Gas Metallic Arc Welding (G.M.A.W/M.I.G.).....	3
WELD 119	Gas Tungsten—Inert Arc Welding (G.T.A.W./T.I.G.).....	3
WELD 120	Advanced Processes—Stick Electrode/ (M.I.G.) Welding.....	3
WELD 130	Advanced Processes—Gas Tungsten, Ceramic and Polymer Welding.....	3
WELD 205	Welder's Print Reading.....	2
WELD 206	Welding Inspection and Qualification.....	2
WELD210-214*	Exam Preparation (Select one).....	3
WELD 223	Fabrication—Student Project.....	4

PROGRAM TOTAL 31 CREDITS

*Select one:

WELD 210	S.M.A.W.....	3
WELD 211	G.M.A.W/M.I.G.....	3
WELD 212	G.T.A.W./T.I.G.....	3
WELD 213	S.A.W.....	3
WELD 214	Pipe Welding.....	3

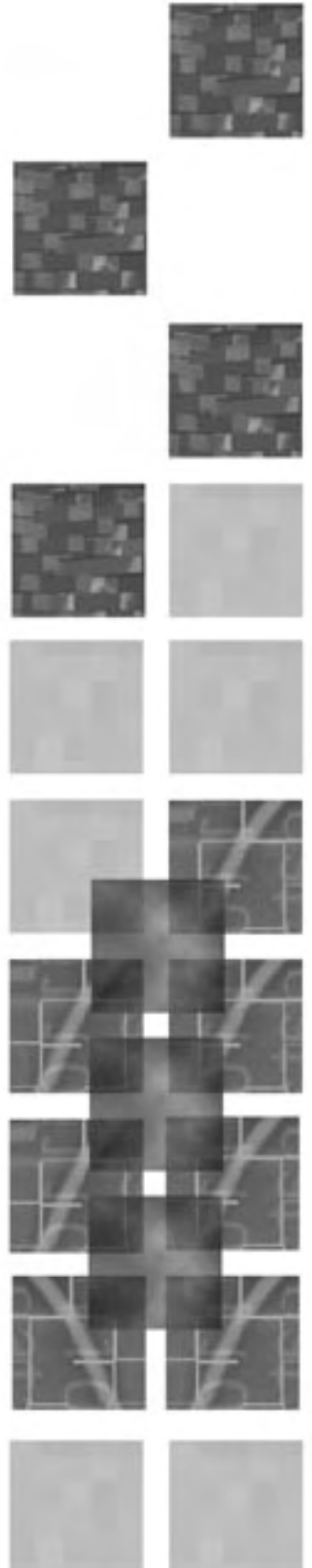
Exams for above certificate will also be provided on an individual basis.





Schoolcraft College

Course Descriptions



COURSE DESCRIPTIONS

KEY TO READING COURSE DESCRIPTIONS

SAMPLE COURSE LISTING:

<p>Department</p> <p>↓</p> <p>Course Number</p> <p>↓</p> <p>Course Description</p> <p>→</p>	<p>Course Name</p> <p>↓</p> <p>Internship Experience (2 - 3 - 11)</p> <p>↓</p> <p>This 12-week course provides the field experience necessary to prepare the student to function as an entry-level paramedic, and to take the National Registry of Emergency Medical Technician-Paramedic licensing examination for State and National certification as an Emergency Medical Technician-paramedic. This course is designed to give students extensive practical application in complex medical situations. The course focuses on state-of-the-art medical technologies and medical emergency management. Students apply their skills under the guidance of professionals in their ambulance internship.</p> <p>→ Prerequisite: EMT 157.</p>	<p>Lecture Hours/Week</p> <p>↓</p> <p>2</p> <p>↓</p> <p>3</p> <p>↓</p> <p>11</p> <p>↓</p> <p>5 Cr. Hrs.</p>	<p>Lab Hours/Week</p> <p>↓</p> <p>5</p> <p>↓</p> <p>Clinical Lab Hours/Week</p> <p>↓</p> <p>11</p>	<p>Credit Hours</p> <p>←</p> <p>5</p>
------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------

Course required before taking this class

Courses are numbered as follows:

1. Courses numbered from 001 to 099 are considered pre-college, may not be transferable, and do not apply toward an Associate Degree.
2. Courses numbered from 100 to 199 are primarily freshman-level courses.
3. Courses numbered 200 to 299 are primarily sophomore-level courses.
4. Final exams are required in all credit courses.
5. Many courses are sequenced so that it is necessary to master the material in a lower level course before attempting more complex material. Follow prerequisites to ensure success.

COURSE INDEX

Accounting.....	84	Fire Technology	116–117
Allied Health Education.....	84	French	117
Anthropology.....	85	Geography.....	118
Art and Design.....	85–86	Geology.....	119
Aviation Business Management.....	86	German.....	119
Biology.....	87–88	Health Information Technology.....	120–121
Biomedical Engineering Technology.....	88	History.....	122
Business.....	89	Human Development Services.....	122
Chemistry.....	90	Humanities.....	123–124
Child Care.....	91–92	International Education.....	124
Collegiate Skills.....	93	Laser Technology.....	124
Communication Arts.....	94	Learning Resources.....	125
Computer Aided Design.....	94–95	Manufacturing.....	125
Computer Assisted Manufacturing.....	95	Mathematics.....	125–126
Computer Graphics Technology.....	96–99	Medical Assisting.....	127
Computer Information Systems.....	99–103	Medical Transcription.....	127
Computer Service.....	103	Metallurgy and Materials Science.....	128
Correctional Science.....	104	Music.....	129–133
Criminal Justice.....	104	Nursing.....	134–135
Culinary Arts.....	105–106	Office Information Systems.....	135
Culinary Arts Program Advanced.....	106–108	Philosophy.....	136
Culinary Baking and Pastry Arts.....	108	Physical Education, Health & Recreation.....	136–137
Culinary Management.....	108–109	Physics.....	137
Design.....	109	Political Science.....	138
Drafting and Design.....	110	Practical Nursing.....	138
Economics.....	110	Psychology.....	139
Electricity, Electronics, Electromechanics.....	110–112	Quality Management.....	139
Emergency Medical Technology.....	112–113	Sociology.....	140
Engineering.....	113	Spanish.....	140
English.....	113–115	Theatre.....	140–141
English as a Second Language.....	115	Welding.....	141–142
Environmental Technology.....	115–116		

ACCOUNTING

Associate Dean: Bruce Sweet, MA
 Instructors: Professor LaVonda Ramey, MBA, CPA
 Instructor Michelle Randall, MBA, CPA
 Adjunct Faculty

- ACCT 103 Introduction to Accounting (4 - 0) 4 Cr. Hrs.**
 Beginning accounting course with emphasis on accounting cycle for a sole proprietorship, journals, ledgers and basic financial statements. Accounting for cash, payroll, taxes and plant assets. Intended for students who want some accounting instruction prior to the Principles of Accounting course and those not majoring in business or economics.
Prerequisite: None.
- ACCT 201 Principles of Accounting (4 - 0) 4 Cr. Hrs.**
 Principles of accounting with emphasis on accounting and the accounting cycle for a sole proprietorship, journals, ledgers, Income Statement, Statement of Owner's Equity, and Balance Sheet. Accounting for cash control, accounts receivable, bad debts, promissory notes, inventories, plant and intangible assets and payroll.
Prerequisite: None.
- ACCT 202 Principles of Accounting (4 - 0) 4 Cr. Hrs.**
 Continuation of ACCT 201 with emphasis on corporations and an introduction to partnership accounting. Accounting for liabilities, investments, statement analysis, management planning and an introduction to cost accounting.
Prerequisite: ACCT 201.
- ACCT 221 Intermediate Accounting (4 - 0) 4 Cr. Hrs.**
 Expansion of accounting principles with emphasis on assets. Accounting for valuing current assets and current liabilities and plant assets.
Prerequisite: ACCT 202. ACCT 260 recommended.
- ACCT 222 Intermediate Accounting (4 - 0) 4 Cr. Hrs.**
 Continuation of ACCT 221 with emphasis on equity accounting. Accounting for current liabilities, long-term liabilities, leases, pensions, income taxes, statement of cash flows, financial statement analysis, accounting changes and errors and other appropriate current topics.
Prerequisite: ACCT 202. ACCT 260 recommended.
- ACCT 226 Cost Accounting (4 - 0) 4 Cr. Hrs.**
 Concepts of cost accounting as a management tool for control and planning. Actual and standard cost methods as applied to job and process cost systems; accounting for materials, labor, and manufacturing overhead; direct costing method; and cost accounting projects. Fall only.
Prerequisite: ACCT 202 and CIS 180.
- ACCT 238 Federal Tax Accounting (4 - 0) 4 Cr. Hrs.**
 Federal income tax laws with special emphasis on those regulations that relate to individuals and small business. Includes preparation of tax forms. Winter only.
Prerequisite: ACCT 201 recommended.
- ACCT 260 Computer Based Accounting (3 - 0) 3 Cr. Hrs.**
 The student will complete comprehensive accounting problems using commercial packages. These packages shall include General Ledger, Accounts Receivable, Accounts Payable and Payroll. Student shall be responsible for modifying layout, making schedules and generating financial statements. The course could accommodate other accounting packages at the discretion of the student and instructor. Outside lab time is required.
Prerequisite: ACCT 202 and CIS 120.

- ACCT 261 Computerized Accounting (3 - 0) 3 Cr. Hrs.**
 The student will complete comprehensive commercial accounting packages. These packages shall include General Ledger, Accounts Receivable, Accounts Payable and Payroll for both a service and merchandising business. Student shall be responsible for modifying layout, making schedules and generating financial statements. The course could accommodate other accounting packages at the discretion of the student and instructor. Outside lab time is required.
Prerequisite: ACCT 202 and CIS 120.
- ACCT 262 Payroll Accounting—Manual to Computerized (3 - 0) 3 Cr. Hrs.**
 The student will complete a manual and computerized payroll practice set. These practice sets will include computing and paying wages and salaries to employees. Explain the various phases of the Social Security Taxes, Federal Income Taxes, State Income Taxes and Unemployment Compensation Insurance and the laws relating to them. The course will analyze and journalize payroll transactions and they will be able to file the appropriate payroll reports. Outside lab time is required.
Prerequisite: ACCT 202 and CIS 120.
- ACCT 263 Computerized Accounting for Small Business (3 - 0) 3 Cr. Hrs.**
 The student will complete a comprehensive computerized software package for a small business company. This package shall include setting up a company, entering transactions, accounts receivables and sales for a business and accounts payable and purchases for a business. The student will record cash receipts and cash disbursements, preparing bank reconciliations along with preparing the financial statements for a small business. The student will generate payroll entries, print payroll tax returns, and payroll reports. Outside lab time is required.
Prerequisite: ACCT 103 or ACCT 201 and CIS 120.

ALLIED HEALTH EDUCATION

Associate Dean: Monica Sullivan, MS
 Instructors: Adjunct Faculty

- AHE 101 Introduction to Health Care (1 - 0) 1 Cr. Hr.**
 A comprehensive review of the health care industry. The course will incorporate trends and changes related to health care facilities such as acute care hospitals, specialty hospitals, nursing homes, health maintenance organizations, hospice and home health care. The course will also deal with the impact and use of computers in the delivery and documentation of health care and the role of the medical professional in response to the health care delivery system.
Prerequisite: None. AHE 101 must be taken prior to completing the first 12 credit hours of Allied Health Programs.



ANTHROPOLOGY

Interim Assistant Dean: Cheryl D. Hawkins, MS

Instructors: Associate Professor Josselyn Moore, MA
Adjunct Faculty

- ANTH 112 Introduction to Anthropology (3 - 0) 3 Cr. Hrs.**
An introduction to the origin and diversity of humans. Topics include evolution of humans and their cultures, contemporary cultural diversity, linguistics, and applied anthropology. Focuses on biological and cultural adaptation.
Prerequisite: None.
- ANTH 117 Introduction to Archaeology (3 - 0) 3 Cr. Hrs.**
A general survey of Archaeology. Includes an overview of the history of the field, and the basic theories and methods employed in the study of prehistoric cultures. Prehistoric cultures are used as examples.
Prerequisite: None.
- ANTH 201 Cultural Anthropology (3 - 0) 3 Cr. Hrs.**
Comparison of ways of life for societies worldwide using anthropological theory and methods. Basic institutions of human society, such as kinship, religion, law, politics, and economics are examined to provide a better understanding of the diversity of contemporary societies. Focuses on non-Western societies.
Prerequisite: None.
- ANTH 211 Myth, Magic and World Religions (3 - 0) 3 Cr. Hrs.**
This course will survey past and present religious beliefs from around the world including tribal religions, Hinduism, Buddhism, Judaism, Christianity and Islam. The importance of religious values will be examined from an anthropological perspective providing an understanding of the role of contemporary religious beliefs in the rapidly changing world.
Prerequisite: ANTH 112 or 201 recommended.
- ANTH 214 Native American Traditions (3 - 0) 3 Cr. Hrs.**
This course provides a survey of Native American cultures from both Native and non-Native perspectives. Social, economic, religious and artistic traditions will be examined. Course content includes a review of prehistoric origins as well as an evaluation of the effects of centuries of contact with people from Europe, Africa and Asia.
Prerequisite: ANTH 112 or 201 recommended.



ART AND DESIGN

Interim Assistant Dean: Cheryl D. Hawkins, MS

Instructors: Assistant Professor Sarah Olson, MA
Assistant Professor Holly Stevens, MA
Adjunct Faculty

- ART 105 Basic Drawing 1 (3- 0) 3 Cr. Hrs.**
Investigation of basic drawing materials; training in observation of and selection of significant elements. Emphasis is on the concept and its relationship to technique and materials. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate lab.
Prerequisite: ART 106 concurrently recommended.
- ART 106 Basic Design 1 (3 - 0) 3 Cr. Hrs.**
Introduction to the basic principles of design. Application of design principles of two and three-dimensional projects in various media. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
Prerequisite: ART 105 concurrently recommended.
- ART 113 Art Education (3 - 0) 3 Cr. Hrs.**
A study of child growth and development through creativity. Students study techniques and materials appropriate for use at various elementary grade levels. Emphasis on methods to stimulate children's creative interests. Students are required to make arrangements for observation of elementary classes during the latter part of the semester.
Prerequisite: PSYCH 201 recommended.
- ART 115 Art History (4 - 0) 4 Cr. Hrs.**
Development of Western Art from prehistoric times to the Renaissance, with emphasis on architecture and sculpture.
Prerequisite: None.
- ART 116 Art History (4 - 0) 4 Cr. Hrs.**
A study of the development of Western Art from the Renaissance to the present.
Prerequisite: ART 115 recommended.
- ART 118 Ceramics 1 (3 - 0) 3 Cr. Hrs.**
Fundamentals of ceramics; study of materials and basic techniques in shaping, decorating and firing. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
Prerequisite: ART 105 or equivalent.
- ART 119 Ceramics 2 (3 - 0) 3 Cr. Hrs.**
Continuation of ART 118. Emphasis on good ceramic form; work with various types of ceramic materials; advanced techniques in shaping, decorating, and firing. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
Prerequisite: ART 118.
- ART 125 Basic Drawing 2—Figure Drawing (3 - 0) 3 Cr. Hrs.**
Continuation of ART 105. Further investigation of drawing as recording of information. Emphasis is placed on the art of observation (looking and seeing), and the recording of the human figure in relationship to its setting, environment, materials and techniques. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate lab.
Prerequisite: ART 105 or consent of instructor.

- ART 126 Basic Design 2 (3 - 0) 3 Cr. Hrs.**
Continuation of Art 106. Further application of design principles in two and three dimensional projects in various media. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
Prerequisite: ART 106. ART 125 concurrently recommended.
- ART 201 Art Appreciation (3 - 0) 3 Cr. Hrs.**
An appreciation course dealing with the basic elements underlying all art forms and with the understanding of the aesthetic and technical problems that are involved.
Prerequisite: None.
- ART 205 Drawing 3 (3 - 0) 3 Cr. Hrs.**
Continuation of ART 105 and 125. Further investigation of materials and techniques, with in-depth study of one or two methods. Further emphasis is placed on portraiture within the study of directly observing and recording the human figure in relationship to its environment. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate lab.
Prerequisite: ART 105 and ART 125 or consent of instructor.
- ART 211 Water Color Painting 1 (3 - 0) 3 Cr. Hrs.**
Introduction to color composition as it relates to still life and landscape painting. Practice in the use of dry-brush and wet-wash techniques. Project completion and exhibition of works at semester end. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate lab.
Prerequisite: ART 105, ART 106 or consent of instructor.
- ART 212 Water Color Painting 2 (3 - 0) 3 Cr. Hrs.**
Continuation of ART 211. Further investigation of water-based media, techniques, and processes. Studio experiences with emphasis on individual experimentation and visual imagery. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
Prerequisite: ART 211.
- ART 216 Women in Art (4 - 0) 4 Cr. Hrs.**
Women's place in the history of western art with special consideration given to women as patrons, artists, and subjects and their impact in these realms.
Prerequisite: Art 115, 116 or 201 or consent of instructor.
- ART 218 Ceramics 3 (3 - 0) 3 Cr. Hrs.**
An intermediate investigation of the artmaking process using techniques specific to ceramics. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
Prerequisite: ART 119.
- ART 219 Ceramics 4 (3 - 0) 3 Cr. Hrs.**
An intermediate investigation of the artmaking process using techniques specific to ceramics. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
Prerequisite: ART 218.
- ART 236 Painting 1 (3 - 0) 3 Cr. Hrs.**
Introduction to painting and exploration of the painting media, techniques, and processes. Studio experiences in developing representational and conceptual visual imagery. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
Prerequisite: Six credit hours studio work or consent of instructor.

- ART 239 Painting 2 (3 - 0) 3 Cr. Hrs.**
Continuation of ART 236. Further investigation of the painting media, techniques, and processes. Studio experiences with emphasis on individual experimentation and visual imagery. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
Prerequisite: ART 236 plus six credit hours studio work or consent of instructor.
- ART 243 Sculpture 1 (3 - 0) 3 Cr. Hrs.**
Development of skills through exploratory experiences in sculptural media and techniques leading to the understanding of sculptural form and conception. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
Prerequisite: Six credit hours studio work or consent of instructor.
- ART 244 Sculpture 2 (3 - 0) 3 Cr. Hrs.**
Continuation of Art 243. Further exploration and application of sculptural media and techniques leading to the understanding of sculptural form and conception. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
Prerequisite: ART 243.

AVIATION BUSINESS MANAGEMENT

Associate Dean: Robert F. Pearce, MPA
Instructors: Adjunct Faculty

- AVM 101 Introduction to Aviation Industry (3 - 0) 3 Cr. Hrs.**
This course will provide a practical view of today's aviation industry within the global transportation system, with special emphasis on the history of airports and airlines. The current realities of airport planning and management, along with the financial and business state of the commercial airline industry will also be presented. This course will discuss the current changes in the regulatory environment of aviation and the possible future of the industry.
Prerequisite: None.



BIOLOGY

Associate Dean: Monica Sullivan, MS
 Instructors: Professor Carolyn Steffen, PhD
 Associate Professor Mohammed Abbas, PhD
 Associate Professor Nickolas Butkevich, MS
 Associate Professor Thomas O'Connor, PhD
 Associate Professor Michael Orick, MS
 Assistant Professor Caroline McNutt, MS
 Assistant Professor Bonnita Taylor, MS
 Adjunct Faculty

BIOLOGY INTRODUCTION

The Biology Department offers 15 biology courses. The department offers:

- A preparatory class (BIOL 050) for those lacking necessary background for other courses offered.
- Courses to fulfill transfer requirements for students planning to attend a senior college.
- Courses leading directly to job placement with or without completion of a degree program (particularly in Health Careers).
- Courses that provide for special interests of students, but not necessarily required in any curriculum.

Students following specific transfer curricula should be aware that they are not limited to only courses specifically listed in the transfer requirements, but have some freedom of electives and can therefore pursue special interests they may have in biology. Schoolcraft biology courses, with the exception of BIOL 050, are generally transferable. Specific information on transfer credit is available from counseling.

BIOL 050 Basic Biology (4 - 0) 4 Cr. Hrs.

This lecture course is offered to students who seek to acquire the necessary background and skills to successfully complete a college-level biology course such as General Biology (BIOL 101). Emphasis is placed on basic terminology and concepts that contribute to an understanding of the scientific process and biological principles, such as the scientific method, basic chemistry, cell biology, metabolism, and genetics.

Prerequisite: None.

BIOL 101 General Biology (4 - 3) 4 Cr. Hrs.

BIOL 101 is a one-semester introductory course. This course introduces students to the scientific study of living organisms. Students will investigate biological concepts including the chemical basis of life, cell structure and function, metabolism, reproduction, genetics, evolution, biological diversity and classification, plant structure and function, animal structure and function, and ecology. Students attend four hours of lecture and three hours of laboratory each week. This course may be used to fulfill the General Education Goals Science requirement. Science majors seeking to fulfill a two-semester introductory biology sequence should enroll in BIOL 120 and BIOL 130.

Prerequisite: BIOL 050 or successful completion with 2.0+ of introductory high school biology within the last five years.

BIOL 103 Health Education (3 - 0) 3 Cr. Hrs.

Study of current health problems related to selected human organ systems, diet, population, environment, fitness, cancer, disease, sexuality and substance abuse.
Prerequisite: None.

BIOL 104 Conservation and Natural Resources (3 - 0) 3 Cr. Hrs.

This course introduces the basic principles of conservation biology as they relate to our critical need as global citizens to preserve and protect biodiversity and natural resources. In addition to studying the causes of extinction, habitat loss and restoration, management of populations, communities and ecosystems, students also explore philosophical issues in conservation values and ethics. This interdisciplinary course integrates contributions from the fields of law, political science, economics, history, and sociology into the fundamental biological principles of conservation. Practical applications, personal stewardship, and globally sustainable solutions are emphasized.

Prerequisite: One course in Biology and/or Geology is helpful.

BIOL 105 Elementary Human Anatomy and Physiology 1 (4 - 0) 4 Cr. Hrs.

This lecture-course introduces fundamental terminology and concepts that will enable students to acquire a basic understanding of the structure and function of the human body. A survey of the anatomy and physiology of the major human organ systems and their association with health and disease is also emphasized. This course is intended for students in allied health programs that do not require a lab course in human anatomy and physiology.

Prerequisite: Introductory high school biology within the last five years or BIOL 050.

BIOL 115 Nutrition (3 - 0) 3 Cr. Hrs.

A study of the nature and role of nutrition with emphasis on changing needs in the human life cycle. The relationship between nutrition and health will be explored. Topics such as vegetarianism, food fads and fallacies, obesity, weight control and food additives are studied.

Prerequisite: None.

BIOL 120 Principles of Biology 1 (4 - 3) 5 Cr. Hrs.

This is the first course of a two-semester introductory biology sequence for students interested in transferring to a four-year institution to pursue a degree in biology or other science-related discipline. Together, BIOL 120 and BIOL 130 provide science majors with a comprehensive introduction to biology. In this course, students will attend four hours of lecture and three hours of lab each week to study the process of scientific inquiry, biochemistry, cell structure, membrane transport, metabolism, cell reproduction, molecular genetics, biotechnology, principles of inheritance, and evolution.

Prerequisite: CHEM 111 recommended. Successful completion with 2.0+ of high school introductory biology and chemistry within last five years.

BIOL 130 Principles of Biology 2 (4 - 3) 5 Cr. Hrs.

This is the second course of a two-semester introductory biology sequence for students interested in transferring to a four-year institution to pursue a degree in biology or other science-related discipline. Together, BIOL 120 and BIOL 130 provide science majors with a comprehensive introduction to biology. In this course, students will attend four hours of lecture and three hours of lab each week to study the evolution and diversity of living organisms, plant and animal anatomy and physiology, animal behavior, and ecology.

Prerequisite: BIOL 120 with 2.0+ grade point or department permission.

BIOL 211 Zoology (3 - 3) 4 Cr. Hrs.

Anatomy, physiology, genetics, development, ecology and classification of animals.

Prerequisite: BIOL 101.

- BIOL 212 Botany (3 - 3) 4 Cr. Hrs.**
Anatomy, physiology, genetics, development, ecology and classification of plants.
Prerequisite: BIOL 101.
- BIOL 236 Human Anatomy and Physiology (4 - 3) 5 Cr. Hrs.**
This one-semester course covers the gross and microscopic anatomy and physiology of the integumentary, skeletal, muscular, nervous, special senses, endocrine, circulatory, lymphatic, immune, respiratory, digestive, urinary and reproductive systems of the human body. Weekly instruction includes four hours of lecture and three hours of laboratory. The laboratory portion includes the use of prepared histological slides, anatomical models, bones, dissection of preserved specimens, blood typing, spirometry, urinalysis, and blood pressure measurement. Students will also have an opportunity to examine a dissected cadaver.
Prerequisite: BIOL 101.
- BIOL 237 Principles of Human Anatomy and Physiology 1 (3 - 2) 4 Cr. Hrs.**
The first course in a two semester sequence in the comprehensive study of the structure and function of the human body. Emphasis will be placed upon the anatomy and physiology of the integumentary, skeletal, muscular, nervous and endocrine systems. Labs reinforce units of study and include the use of prepared histological slides, anatomical models, and bones, dissection of preserved specimens, and computer simulations. In addition, students will have the opportunity to examine a dissected cadaver to enhance anatomical studies. BIOL 237 and BIOL 238 are designed for the student who plans to pursue a career in the health or biomedical field. Students attend three hours of lecture and two hours of lab each week.
Prerequisite: BIOL 101.
- BIOL 238 Principles of Human Anatomy and Physiology 2 (3 - 2) 4 Cr. Hrs.**
The second course in a two semester sequence (continuation of BIOL 237) in the comprehensive study of the structure and function of the human body. Emphasis will be placed upon the anatomy and physiology of the circulatory, lymphatic, respiratory, digestive, urinary and reproductive systems. Labs reinforce units of study and include the use of prepared histological slides, anatomical models, dissection of preserved specimens, blood pressure measurement, spirometry, urinalysis, and computer simulations. In addition, students will have the opportunity to examine a dissected cadaver to enhance anatomical studies. Students attend three hours of lecture and two hours of lab each week.
Prerequisite: BIOL 237.
- BIOL 240 Review of Anatomy and Physiology (2 - 0) 2 Cr. Hrs.**
This course is a review of the anatomy and physiology of the human body with special emphasis on the physiology of the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. This course is designed for students entering biomedical programs that require a review of the basic anatomy and physiology of the human body.
Prerequisite: BIOL 237 and BIOL 238, or BIOL 236 or equivalent. BIOL 105 with consent of instructor.

- BIOL 243 Microbiology (3 - 4) 4 Cr. Hrs.**
This course covers the world of microbes including microbial structures and function, biochemistry, metabolism, genetics, control of microbial growth, immunity, classification and epidemiology. Laboratory techniques commonly used in microbiology, including microscope use, bacterial smears, staining methods, aseptic techniques, isolation of pure cultures, identification of unknown microorganisms, antibiotic testing, and others are utilized.
Prerequisite: BIOL 101.

BIOMEDICAL ENGINEERING TECHNOLOGY

Associate Dean: Bruce Sweet, MA
Coordinator/Instructor: Chris Peters
Instructors: Adjunct Faculty

- BMET 116 Biomedical Instrumentation Terminology and Safety (2 - 1) 3 Cr. Hrs.**
Students will acquire a knowledge of the language common to electronics and the medical profession based on spelling pronunciation and definition of words and terms related to anatomy, medical equipment, electronic test equipment and safety. They will become acquainted with the fundamentals of medical equipment and testing concepts. Students will be introduced to the field of Biomedical Engineering Technology as a career.
Prerequisite: For student to be successful, minimum grade of 2.0 in ELECT 127 or equivalent is suggested.
- BMET 204 Transducers (2 - 2) 4 Cr. Hrs.**
This course is intended to provide students with a knowledge of mechanics, materials, magnetics, heat, sound, light, and nuclear physics with the sole intent of understanding transducers and other interfaces with electronic equipment used in the medical field.
Prerequisite: Minimum grade of 2.0 in ELECT 129 or equivalent.
- BMET 254 Biomedical Equipment Internship 1 (0 - 24/40) 3 Cr. Hrs.**
This is the first cooperative assignment for a Biomedical Engineering Technology student who has completed the prerequisites for this course. Employment will be approximately 24–40 hours per week off campus in a technical capacity with a hospital or an employer in the biomedical field. The College and the employer will jointly evaluate the student, which will then serve as a basis for a final grade. (Usually 15 weeks)
Prerequisite: BMET 116 and ELECT 129. Approval of the BMET Coordinator and a 2.0 G.P.A. A student on a BMET internship is considered a full-time student with Schoolcraft College, with all the rights and privileges of a full-time student.
- BMET 255 Biomedical Equipment Internship 2 (0 - 24/40) 3 Cr. Hrs.**
This is the second cooperative assignment for a Biomedical Engineering Technology student who has completed one semester of internship. The conditions for assignment and evaluation are the same as for Biomedical Internship 1. The student is expected to handle an increased level of technical responsibility, and may possibly serve the internship at a hospital, medical equipment manufacturer, or a medical equipment service company. The College and the employer will jointly evaluate the student, which will then serve as a basis for a final grade. (Usually 15 weeks)
Prerequisite: BMET 254. Approval of the BMET Coordinator and a 2.0 GPA. A student on a BMET internship is considered a full-time student with Schoolcraft College, with all the rights and privileges of a full-time student.

BUSINESS

Associate Dean: Bruce Sweet, MA
Instructors: Professor Donald Ryktarsyk, MA
Adjunct Faculty

- BUS 101 Introduction to Business (3 - 0) 3 Cr. Hrs.**
Principles, problems and practices of business in the areas of organization, management, computer information systems, labor, production, personnel, marketing, finance, insurance, regulation, and government.
Prerequisite: None.
- BUS 103 Organizing a Small Business (3 - 0) 3 Cr. Hrs.**
This course emphasizes the organization for those who are operating, starting, or seeking employment in small business. The major topics include: Starting a small business, franchising, location, organizing, financing, and government regulation of a small business.
Prerequisite: None.
- BUS 104 Operating a Small Business (3 - 0) 3 Cr. Hrs.**
This course emphasizes operating a small business for those who are either operating, starting, or seeking employment in a small business. The major topics include: policies, insurance, employee relations, inventory control, pricing, and advertising.
Prerequisite: None.
- BUS 105 Business Mathematics (3 - 0) 3 Cr. Hrs.**
Review of fundamentals of arithmetic, percentage, simple and compound interest, taxes, insurance, bonds, applications to business practice.
Prerequisite: A minimum grade of 2.0 in MATH 045 or equivalent.
- BUS 120 Principles of Salesmanship (3 - 0) 3 Cr. Hrs.**
Fundamentals of retail, wholesale, outside, and service selling; practice in sales preparation and demonstration.
Prerequisite: None.
- BUS 122 Advertising (3 - 0) 3 Cr. Hrs.**
Provides the student with a general knowledge of the various facets of advertising, media selection, psychological buying motives, and advertising strategies. Also, the student will gain an appreciation of the various talents needed to bring about a good advertising message.
Prerequisite: None.
- BUS 161 Retail Principles and Practices (3 - 0) 3 Cr. Hrs.**
Fundamentals of store organization and operation; identification of problem situations pertaining to retail establishments; specific application for retail procedures.
Prerequisite: None.
- BUS 162 Retail Merchandising (3 - 0) 3 Cr. Hrs.**
Merchandising functions, fundamental activities of retail establishments, buying procedures, inventory control, and pricing.
Prerequisite: BUS 105.



- BUS 201 Business Statistics (3 - 0) 3 Cr. Hrs.**
Students apply statistical methods to data to gain insight into practical problems. Computer software is used to perform statistical calculations and generate charts and graphs.
Prerequisite: MATH 113.
- BUS 204 Personal Finance (3 - 0) 3 Cr. Hrs.**
A practical study of the problems and solutions facing the consumer in today's society. The areas that are covered include budgeting, banking, credit, and income taxes. Also considered are the selection of insurances, choice of housing, large item purchasing (such as automobiles) and occupational choices. In addition, the laws and regulations for consumer protection and where to get relief for personal buying problems are discussed.
Prerequisite: None.
- BUS 205 Personal Investing (3 - 0) 3 Cr. Hrs.**
Investment goals will be determined. These include the investment alternatives of savings, corporate stocks and bonds, mutual funds, government securities, and other investment opportunities. Also, the student will learn how to analyze and select these investment alternatives for individual portfolios.
Prerequisite: None.
- BUS 207 Business Law (3 - 0) 3 Cr. Hrs.**
Principles of law as applied to the legal environment of business, contracts, sales and consumer rights, bankruptcy and secured transactions - debtor/creditor rights.
Prerequisite: None.
- BUS 208 Business Law (3 - 0) 3 Cr. Hrs.**
Continuation of BUS 207 with emphasis on negotiable instruments, real and personal property, agency, partnerships, corporations, employment, and wills and estates.
Prerequisite: BUS 207 recommended.
- BUS 217 Business Management (3 - 0) 3 Cr. Hrs.**
This course centers discussion on basic functions of the management process. Included in this process are: decision making, organizing, staffing, planning, controlling, communicating, and directing.
Prerequisite: BUS 101 or consent of department.
- BUS 220 Supervision (3 - 0) 3 Cr. Hrs.**
A course geared to better understanding the first-line supervisor as a particularly critical position within an organization. It centers on the development of skills, attitudes and knowledge essential to job performance. The course concentrates on leadership, motivation, communication, and other related topics.
Prerequisite: None.
- BUS 226 Principles of Marketing (3 - 0) 3 Cr. Hrs.**
An integrated analytical approach to the marketing process with discussion of essential economic principles as they apply to the marketing process. Course considers the interrelationship of the marketing functions as they contribute to the marketing process.
Prerequisite: BUS 101 or consent of department.
- BUS 230 Human Resource Management (3 - 0) 3 Cr. Hrs.**
The course emphasizes the management of the procurement, development, compensation, integration, maintenance, and separation of human resources to accomplish individual, organizational, and social objectives.
Prerequisite: BUS 101 or consent of department.

CHEMISTRY

Associate Dean: Monica Sullivan, MS
 Instructors: Associate Professor Cheryl Snyder, MS
 Assistant Professor Paul Dickson, PhD
 Assistant Professor Michael Waldyke, MS
 Adjunct Faculty

CHEM 051 Basic Chemistry (4 - 2) 4 Cr. Hrs.

An elementary course in chemistry for students who have not had high school chemistry or who wish to review basic chemical concepts. The course provides an introduction to chemical measurement, basic definitions and laws, chemical nomenclature and equations, calculations based on chemical equations, atomic theory, the Periodic Table, solutions, acids, bases, gases, and organic chemistry.

Prerequisite: MATH 053 or equivalent.

CHEM 100 Introduction to the Chemistry of Food for Culinary Arts (3 - 2) 4 Cr. Hrs.

This course is designed to familiarize the culinary arts student with a basic understanding of scientific principles as they apply to foods and culinary processes. The course will include a basic introduction to various aspects of chemistry. Classes of foodstuffs will be examined on a molecular level to ascertain an understanding of the interactions that occur in culinary applications. The laboratory portion of the course will emphasize the relationships between chemical principles/techniques and food preparation.

Prerequisite: CAP 090.

CHEM 111 General Chemistry (4 - 3) 4 Cr. Hrs.

This course is designed as a first course in a traditional one-year program in general college chemistry and includes a review of fundamental concepts such as symbols, formulas, chemical equations, laws of chemical combination, and physical and chemical properties. Atomic and molecular structure, bonding, stoichiometry, periodicity, gases, solutions, acids and bases, and electrochemistry and oxidation-reduction are also covered in this course.

Prerequisite: Both CHEM 051 or equivalent with a grade of 2.0, and MATH 113 or equivalent. Math may be concurrent.

CHEM 117 General Chemistry and Qualitative Analysis (4 - 4) 5 Cr. Hrs.

This course is the second course in a traditional one-year general college chemistry program. It includes the study of kinetics, solution equilibria, solubility equilibria, hydrolysis, coordination compounds, thermodynamics and qualitative analysis. A brief introduction to organic chemistry and nuclear chemistry is also included. Laboratory work correlates with lecture and stresses the identification of common cations and anions by semimicro methods.

Prerequisite: CHEM 111 with a grade of 2.0 or better or consent of department.

CHEM 125 Organic and Biochemistry (3 - 0) 3 Cr. Hrs.

A survey of organic and biochemistry emphasizing the major metabolic activities of living organisms. This course is recommended for premedical students, but does not usually apply as transfer chemistry credit. CHEM 125 is also intended for nursing and other health-related career curricula.

Prerequisite: CHEM 111.

Corequisite: CHEM 126 (not for Premed).

CHEM 126 Organic and Biochemistry (0 - 3) 1 Cr. Hr.

Selected laboratory exercises in organic and biochemistry corresponding to lecture topics in CHEM 125.

Prerequisite: CHEM 111.

Corequisite: CHEM 125.

CHEM 213 Organic Chemistry (4 - 4) 5 Cr. Hrs.

Integrated course stressing basic principles of organic chemistry such as nomenclature, chemical bonding, correlation of physical properties with structure, mechanisms of organic reactions of both the aliphatic and the aromatic series. Laboratory deals largely with synthesis of organic compounds and study of their properties.

Prerequisite: CHEM 117 with a grade of 2.0 or better or consent of department.

CHEM 214 Organic Chemistry (4 - 4) 5 Cr. Hrs.

Continuation of CHEM 213. Emphasis upon mechanisms of organic reactions and interpretation of spectra. Lab work emphasizes preparation of organic compounds through multistep syntheses.

Prerequisite: CHEM 213.



CHILD CARE

Interim Assistant Dean: Cheryl D. Hawkins, MS

Instructors: Associate Professor Diane Flynn-Hahn, MA
Assistant Professor Elizabeth Schneider, MEd
Adjunct Faculty

CCD 100 Introduction to Child Welfare Services (3 - 0) 3 Cr. Hrs.
Students will receive wide exposure to community agencies and resources available to children and youth. There will be focus on identifying needs of children and methods through which those needs are met by the community when parents are unable to do so or need assistance.

Prerequisite: None.

CCD 101 Preschool Child Care (3 - 0) 3 Cr. Hrs.
This course is designed to assist students in understanding the needs of the preschool child and methods by which they are met. There will be focus on phases of development, typical behaviors, and appropriate practices. Observational skills will be sharpened, with concentration on signals alerting students to the children's levels of functioning.

Prerequisite or Corequisite: CCD 116 or consent of department.

CCD 105 Introduction to Developmental Disabilities (3 - 0) 3 Cr. Hrs.
This course is designed to introduce students to the health and developmental problems of persons with mental impairment (MI). Emphasis is placed on gaining knowledge of the various syndromes typical in MI populations and learning to recognize medical symptoms. Attention will also be given to developing an understanding of prescribed drugs and their side effects, infectious diseases and preventive measures against contagion.

Prerequisite or Corequisite: CCD 216 or consent of department.

CCD 113 Special Educational Programs and Supported Community Living (3 - 0) 3 Cr. Hrs.
Students become familiar with considerations of placement and training of persons with developmental disabilities, emotional disabilities, learning disabilities and physical handicaps. Attention will be given to the theory and principles of normalization and appropriate community support. The course will cover the operation and maintenance of group homes. Included will be current laws and regulations regarding licensing, equipping and maintaining the physical plant, staffing, food services, health and social services, budgeting and program development.

Prerequisite: None.

CCD 115 School Age Child Care (3 - 0) 3 Cr. Hrs.
This course is designed to identify the developmental tasks of middle childhood (ages 6-12) and suggest ways caregivers can help foster growth and development. Emphasis will be on understanding the needs of the school age child and methods by which they are met.

Prerequisite or Corequisite: CCD 116 or consent of department.

CCD 116 Child Development (3 - 0) 3 Cr. Hrs.
This course is designed to provide students an overview of life from its beginning through adolescence. The course will concentrate on physical, cognitive, social and emotional development in the prenatal, infancy, toddler, preschool, middle childhood and adolescent periods.

Prerequisite: None.

CCD 118 Infant and Toddler Care (3 - 0) 3 Cr. Hrs.
This course is designed to prepare students to provide care for infants and toddlers. Students will learn the essential ingredients in infant and toddler care and will learn to match caregiving strategies to very young children as they develop. A holistic emphasis focuses on the development of a curriculum which provides for the physical, emotional, social, and cognitive development of infants and toddlers.

Prerequisite or Corequisite: CCD 116 or consent of department.

CCD 121 The Adolescent (3 - 0) 3 Cr. Hrs.
In this course the student will explore major theories in adolescent development and use the theoretical constructs to understand adolescent behavior. Students will recognize the contributing factors which lead to the development of a stable identity hierarchy and the development of responsibility in adolescence.

Prerequisite or Corequisite: CCD 116 or consent of department.

CCD 126 Creative Activities (3 - 0) 3 Cr. Hrs.
The purpose of this course is to introduce the students to the stages of creativity and to art materials and techniques. Activities appropriate for preschool children and children and adults with developmental or emotional disabilities will be covered.

Prerequisite: None.

CCD 130 Learning Disabilities (3 - 0) 3 Cr. Hrs.
This course is designed to acquaint students with the perceptual and learning handicaps of children with learning disabilities. Students will learn about special education programs in public schools. The diagnosis of disorders of visual and auditory perception, language, motor coordination, equilibrium and laterality related to the learning processes are discussed as well as specific recommendations for remediation and implications for school planning.

Prerequisite or Corequisite: CCD 216 or consent of department.

CCD 140 Emotional Impairment (3 - 0) 3 Cr. Hrs.
The purpose of this course is to acquaint students with concepts and materials related to the education of children with emotional disabilities. The major theories related to causes and treatment of emotional and behavior problems will be covered.

Prerequisite or Corequisite: CCD 216 or consent of department.

CCD 150 Child Care Practicum 1 (1 - 10) 3 Cr. Hrs.
Students will have supervised experience working directly with children and youth in settings such as day care centers and group homes. They will have the opportunity to integrate classroom material and personal life experiences with on-the-job child care experience and evaluate the experiences of children in light of the concepts they have learned. Emphasis on observing and reporting activities of the children.

Prerequisite or Corequisite: CCD 116 or consent of department.

CCD 155 CDA Assessment Preparation (1 - 0) 1 Cr. Hr.
To be awarded the CDA credential, a Candidate must present evidence to The Council for Early Childhood Professional Recognition of his/her competence as a child care provider/educator. This course is designed to support the CDA Candidate in preparation for the final assessment process.

Prerequisite: CCD 116, CCD 100, CCD 101, CCD 118, CCD 126, CCD 150, CCD 170, CCD 214 or consent of department.

CCD 170 Behavior Management (3 - 0) 3 Cr. Hrs.

This course is designed to familiarize students with the behavior management options available for use with children and adults. A survey of behavior shaping techniques will be made including a study of the classical behavior modification model and an introduction to data collection.

Prerequisite: None.

CCD 180 Introduction to Family Support (3 - 0) 3 Cr. Hrs.

The fields of early childhood education and family support have become more interconnected as children bring family problems into the variety of centers, nonprofit agencies, and social service organizations that provide care and resources for them. This course is designed to provide an overview of the elements of family support. Included in this overview are: effective communication skills, sensitivity to cultural and familial values and styles, strength based assessment, and observation of parent-child interaction. The review of child development and child management approaches, establishing and maintaining help-giving relationships, and problem-solving in help-giving relationships are also covered.

Prerequisite: CCD 100.

CCD 185 Empowering Families (3 - 0) 3 Cr. Hrs.

This course is designed to identify key principles and strategies for working in partnership with families using an empowerment model approach. In this course students will explore successful partnerships, empowerment processes, the art of collaboration, formal and informal support systems, case management and documentation in addition to parenting education and outcome focused initiatives.

Prerequisite: CCD 180.

CCD 200 Child Care Practicum 2 (1 - 10) 3 Cr. Hrs.

Continued supervised experience working directly with children and youth in child care settings. Students will have increased responsibility as child care workers. Emphasis on working as a contributing member of the child care team.

Prerequisite: CCD 150 or consent of department.

Prerequisite or Corequisite: CCD 101 or CCD 215 or consent of department.

CCD 202 Family Support Field Practicum (1 - 10) 3 Cr. Hrs.

This course is designed to provide students with practical experiences in the field of Family Support. Students will have the opportunity to apply, refine and expand what they have learned in the classroom with on-the-job family support experiences. Students will learn to observe, assess strengths, challenges and family development stages in family support programs. Students will look critically at the family support environment to judge its appropriateness and use of best and innovative practices for working effectively with families. Students will be expected to demonstrate competencies in all 11 family support areas and be able to reflect on their growth in skills and knowledge in the field.

Prerequisite or Corequisite: CCD 180 and CCD 185.

CCD 211 Children and Youth in Groups (3 - 0) 3 Cr. Hrs.

This course is designed to introduce students to the principles of group functioning and techniques of helping children become accepted members of peer groups. Membership of child care workers in professional groups will also be covered.

Prerequisite: None.

**CCD 214 Operation and Maintenance of a Child Care Facility (3 - 0) 3 Cr. Hrs.**

The course will cover methods of operating and maintaining a child care facility. Included will be current laws and regulations regarding licensing, equipping and maintaining the physical plant, staffing, food services, health and social services, budgeting, and program development.

Prerequisite: None.

CCD 215 Methods and Curricula for Persons with Developmental Disabilities (3 - 0) 3 Cr. Hrs.

The objectives of this course are to familiarize the student with the theoretical approaches to developmental disabilities and to introduce methods of assessing severely handicapped children. A survey of the various curricula used with children and adults with developmental disabilities is included.

Prerequisite: None.

CCD 216 The Child with Special Needs (2 - 2) 3 Cr. Hrs.

This course is designed to introduce the student to children and adults who have special needs. Included are children and adults who have mental retardation, emotional impairment, hearing impairment, visual impairment, learning disabilities, and those who have orthopedic or other health handicaps. Visitations to off-campus institutions and special education classrooms will be made.

Prerequisite: None.

COLLEGIATE SKILLS

Associate Dean: Deborah B. Daiek, PhD
 Instructors: Associate Professor Donna Clack, MA
 Adjunct Faculty

Collegiate skills courses may be offered in a format where learning skills and strategies taught are in relation to content from other Schoolcraft courses. The purpose of the learning community offerings is to provide students with the most relevant application of learning skills. See current schedule of classes for current information.

COLLS 050 Learning Power (4 - 0) 4 Cr. Hrs.

The course focuses on developing vocabulary and comprehension skills in group and lab settings. Students will explore and develop reading strategies to improve efficiency.

Prerequisite: None.

COLLS 053 Critical Thinking Applications (4 - 0) 4 Cr. Hrs.

This course is designed to prepare a student to successfully handle college level reading assignments. Reading comprehension techniques and vocabulary development strategies are emphasized using a variety of materials. Techniques will be applied to selected materials and textbooks students are currently using.

Prerequisite: None.

COLLS 055 College Notetaking (1 - 0) 1 Cr. Hr.

This course will prepare students for successful notetaking of lectures. Emphasis will be placed on enhancing listening skills, preparing for lectures and notetaking of lectures. Application of notetaking skills in students' classes will be stressed.

Corequisite: Recommended enrollment in another class requiring notetaking.

COLLS 101 College Success (3 - 0) 3 Cr. Hrs.

This course is designed to increase a student's learning potential and success in college. Each student will explore learning strategies and attitudes that lead to improved grades. Topics in this course include time/task planning, critical thinking, study techniques, and exploring attitudes successful students bring to a learning environment. Each student will learn to apply principles covered in this course to their other college courses.

Prerequisite: COLLS 053 or equivalent.

COLLS 105 Learning Skills 1 (1 - 0) 1 Cr. Hr.

This course is designed to provide students with the learning skills and support necessary to successfully balance academic and other life demands. Students will apply techniques to their personal situations and course load requirements.

Prerequisite: Consent of department.

COLLS 109 Learning Skills 2—Education Majors (1 - 2) 3 Cr. Hrs.

This course is designed for those education transfer students who desire to participate in a Collegiate Skills sponsored pre-student teaching practicum as required by their transfer institution. Affective and cognitive behaviors of young learners are reviewed, as are the characteristics and strategy supports typical of a variety of learners. Program participants learn to properly analyze and journal relevant interactions and explore key issues and controversies in today's educational environment.

Prerequisite: COLLS 53 or equivalent; Math 051 or equivalent. (Twenty-seven or more transfer credits above 100 level)

COLLS 110 Learning Skills (2 - 0) 2 Cr. Hrs.

This course is designed to provide students who have learning disabilities with the learning skills and support necessary to successfully balance academic and other life demands. Students will apply techniques to their personal life situations and course load requirements.

Prerequisite: None.

COLLS 111 Electronic Portfolio (1 - 0) 1 Cr. Hr.

This course introduces The Schoolcraft College Electronic Portfolio. Students will engage the college learning experience by 1) growing an awareness of the college's expectations that they will acquire the attitudes, skills, knowledge and ability characteristic of generally educated persons, 2) understanding the changing nature of the college learning focus from acquisition of courses and credits to providing demonstrable evidence of their learning outcomes, and 3) starting the process of creating their personal electronic portfolios as the primary vehicle for showcasing their demonstrable evidence. Students will leave the course with some experience in the college learning environment, knowing the kind of expectations they will meet in their courses and programs, and the beginnings of their own Schoolcraft College Electronic Portfolio on a ZIP disc. The portfolio becomes an ongoing project during their studies at the college.

Prerequisite: None.

COLLS 130 Applied Learning Theory for Nursing Majors (3 - 0) 3 Cr. Hrs.

This course is designed to prepare pre-PN and RN students for demands of the nursing program. Emphasis will be placed on developing and applying critical reading, thinking, and learning strategies to nursing content. Topics covered are reading speed/comprehension, reading study system, lecture note taking, time/goal management, test preparing/test taking, and communications skills.

Prerequisite: COLLS 053 or college level reading placement score and BIOL 050.



COMMUNICATION ARTS

Interim Assistant Dean: Cheryl D. Hawkins, MS

Instructors: Professor JuJuan C. Taylor, PhD
Adjunct Faculty

- COMA 103 Fundamentals of Speech (3 - 0) 3 Cr. Hrs.**
Develops essential skills by directed practice in a variety of speech situations and furnishes basic knowledge necessary for intelligent speech improvement; speech research and support; stress on speaker's ideas, attitudes, and audience adjustment.
Prerequisite: None.
- COMA 200 Interpersonal Communication (3 - 0) 3 Cr. Hrs.**
Study and practical application exercises in the basic elements of interpersonal communication with emphasis on self-concept, perception, meanings, listening, feedback, defensive communication barriers, and non-verbal communication. Special attention will be given to improving interpersonal communication skills. This course may not be substituted for COMA 103.
Prerequisite: COMA 103 or consent of instructor.
- COMA 201 Discussion (3 - 0) 3 Cr. Hrs.**
This course conveys a better understanding of human affairs. The student will review attitudes and skills for effective participation in discussion; including cooperative thinking, exchange of ideas, and problem solving.
Prerequisite: COMA 103 or equivalent.
- COMA 203 Contemporary Public Address (3 - 0) 3 Cr. Hrs.**
A study of contemporary American speeches. Analysis of speeches from the 60s, 70s, 80s and 90s. We will explore the form and principles of modern day speeches.
Prerequisite: COMA 103.
- COMA 205 Argumentation and Persuasion (3 - 0) 3 Cr. Hrs.**
A selected examination of argumentation and persuasion theory and its application in specialized forms.
Prerequisite: COMA 103 or equivalent.
- COMA 210 Communication for Leaders (3 - 0) 3 Cr. Hrs.**
An exploratory examination of leadership roles. Designed as an overview to develop communication awareness in the role of the leader in interviews, group discussions, problem solving, staff meetings, presentations, and an examination of communication barriers.
Prerequisite: COMA 103 or consent of instructor.

COMPUTER AIDED DESIGN

Associate Dean: Bruce Sweet, MA

Instructors: Professor Gerald Cavanaugh, MA
Associate Professor Catherine Ferman, MS
Assistant Professor Lisa Zaccone, BS
Adjunct Faculty

- CAD 101 Introduction to Computer Aided Drafting (2 - 2) 3 Cr. Hrs.**
This course is designed for the experienced drafter who wants to obtain some CAD skills. Topics to be covered include 2D drawing creation, drawing, editing and plotting as well as view manipulation. In addition the student will learn the basics about file saving, retrieving and copying.
Prerequisite: Drafting experience, consent of department.
- CAD 102 Advanced Topics in CAD (2 - 2) 3 Cr. Hrs.**
This course is designed as an advanced course in computer aided drafting for the non-degree seeking design professional. These may be architects, engineers, product designers, or drafters already trained or employed in the field. Topics to be covered include three-dimensional solid modeling, parametric modeling, assembly and software customization. An understanding of two-dimensional commands and basic knowledge of drafting is required for this course. This course does not count towards a degree in Computer Aided Design.
Prerequisite: CAD 101 or equivalent.
Industry experience will be considered.
- CAD 103 Engineering Graphics (2 - 2) 3 Cr. Hrs.**
This course is designed to introduce the student to the basic concepts and standard practices necessary for the graphical communication of technical data. Included is the reading, interpretation and creation of engineering drawings, technical sketching and introduction to computer aided drafting (CAD). Topics introduced include orthographic projection, pictorials, sectioning, auxiliary views, dimensioning, tolerancing, surface finish and fasteners. This course is designed for the transfer Engineering student and as an introductory course for those who are considering a career as a mechanical or tool designer.
Prerequisite: None.
- CAD 105 Mechanical Engineering Drawing (3 - 2) 4 Cr. Hrs.**
This course is designed to teach the student the concepts and standard practices involved in the creation of drawings/files/models. Sketching and computer aided drafting (CAD) will be the tools for communicating mechanical product information. The student will be expected to create 2D drawings and simple 3D models. Topics to be covered will be projection methods for creating orthographic auxiliary and sectional views, 3 dimensional models and full detail and isometric drawings with untoleranced dimensions, symbols and notes. The focus will be utilizing the CAD system to create mechanical engineering prints. This course is designed for those who have chosen a career as a mechanical or tool designer.
Prerequisite: CAD 103 or equivalent.



- CAD 107 Detailing (2 - 4) 4 Cr. Hrs.**
This course is designed to teach the student concepts and standard practices involved in the creation of detail and assembly drawings. Geometric Dimensioning and Tolerancing philosophy will be employed for controlling variations. Sketching and computer aided drafting (CAD) will be the tools for communicating mechanical product and tool information. The student will create 3D models and 2D drawings. Simple assemblies will be constructed and analyzed using previously created parts. Topics to be covered will be dimensioning standards and practices, tolerancing methods, tolerance stackup evaluation, G. D. and T. methods, 3 dimensional modeling, 2D and data extraction from 3D models.
Prerequisite: CAD 105 or equivalent.
- CAD 201 I-DEAS Level 1 (4 - 0) 4 Cr. Hrs.**
This course will introduce students to the modeling and drafting packages in SDRC's I-DEAS Software. Topics will include the user interface, data management, master modeler, solid model creation, geometrical constraints and relations, assembly modeling and system hierarchy.
Prerequisite: CAD 105 or previous industry drafting experience.
- CAD 202 I-DEAS Level 2 (1 - 1) 2 Cr. Hrs.**
This course is designed to present higher level part modeling and file management commands for SDRC's I-DEAS Master Modeler.
Prerequisite: CAD 201 or equivalent.
- CAD 204 I-DEAS Generative Machining (1 - 1) 2 Cr. Hrs.**
This course presents the CAM portion of the I-DEAS software. Topics include creating NC jobs and operations, accessing and creating tool definitions, generating machine code for hole cutting, face milling, profiling, turning, and thread cutting. Tool paths are simulated and errors corrected. CL files are created and the machine code will be post processed for specific machines.
Prerequisite: CAD 201 or equivalent.
- CAD 209 I-DEAS Graphical Finite Element Modeling (1 - 1) 2 Cr. Hrs.**
This course introduces the aspects of finite element analysis that are important to the software user. Theoretical aspects are introduced as they are needed to help better understanding of the operations. Emphasis is on the practical concepts and procedures to using I-DEAS Master Series in performing linear static stress analysis.
Prerequisite: CAD 201 or equivalent.
- CAD 211 CATIA Level 1 (4 - 0) 4 Cr. Hrs.**
This first level CATIA course will cover the basics of creating, editing and storing 3D models. The construction and constraining of assemblies will be covered as will the creation of detail and assembly drawings using the Drafting package.
Prerequisite: CAD 105 or previous industry drafting and/or modeling experience.
- CAD 212 CATIA—Surfacing (2 - 2) 4 Cr. Hrs.**
This course is designed to present higher level part modeling commands for CATIA Modeler. Particular attention will be paid to surfacing.
Prerequisite: CAD 211 or equivalent.
- CAD 213 CATIA—Knowledgware (1 - 1) 2 Cr. Hrs.**
This course is designed to introduce the student to the capabilities of CATIA Knowledgware. CATIA Knowledgware allows the capture and integration of corporate design knowledge within CATIA parametric models.
Prerequisite: CAD 211 or equivalent.

COMPUTER ASSISTED MANUFACTURING

Associate Dean: Bruce Sweet, MA
Instructors: Professor James Kramer, MS
Adjunct Faculty

- CAM 102 Introduction to Computer Numerical Control (CNC) (2 - 2) 3 Cr. Hrs.**
This course will provide the basic concepts in converting the dimensional information from a drawing into numerical control coding, G and M, to process a part. NC machine axis systems, coordinate systems, part dimensioning and programming by using incremental and absolute reference system will be taught. The student will learn how to enter G and M coding data, manually, into the CNC machine to process the part. Simulation software will also be used to check if the CNC coding has been entered correctly.
Prerequisite: Windows experience highly recommended.
Corequisite: MFG 102 and/or previous machining experience.
- CAM 103 Computer Numerical Control Programming (2 - 2) 3 Cr. Hrs.**
Students will further their CNC skills by using a CAD/CAM MasterCAM software to generate CNC coding for mills and lathes. Using MasterCAM involves three steps: first, the student will use MasterCAM's CAD program to create the part geometry; secondly, the CAM program will be used to program machine information (feed rate, spindle speed, coolant control command, etc.); and finally, a postprocessor will be used to generate CNC coding. Also, toolpaths will be verified by using a graphical (animation) solid-model toolpath verification to detect potential machining errors. The students will also study drilling, solid modeling, pocketing, and circle boring.
Prerequisite: CAM 102 or basic knowledge of MasterCAM.
- CAM 205 CAD/CAM—Computer Aided Machining (0 - 4) 3 Cr. Hrs.**
The student will use CNC MasterCAM software program that covers mills, lathes, and solids that address the following machining variables: machining parameters; constructing wireframe models; generating surface models with toolpaths; engraving artworks; and solid modeling. Operational parameters will be calculated to determined operating capacity of a cutting tool, spindle horsepower, the affects of different types of workpiece material, and rigidity of the part and respective fixture. The student will learn how to generate coding for 3D wireframe and multi-axis composite surfaces using various modeling techniques.
Prerequisite: CAM 103 or extensive knowledge in 2D MasterCAM Design.



COMPUTER GRAPHICS TECHNOLOGY

Interim Assistant Dean: Cheryl D. Hawkins, MS

Instructors: Associate Professor Colleen Case, MLS
Associate Professor Stephen Wroble, MA
Assistant Professor Michael Mehall, MA
Instructor Dennis Summers, MFA
Adjunct Faculty

CGT 110 Illustration—FreeHand (2 - 0) 2 Cr. Hrs.

This course is intended to introduce students to the field of graphic design and illustration using one of the professional computer drawing software packages. Emphasis is on learning the software and on applying basic design skills to the computer generated image. Students are instructed in the fundamentals of drawing on the computer, working with color, and working with type through a series of realistic graphic design projects. Students are expected to be familiar with basic functions of the computer before beginning the class.

Prerequisite: Previous experience with a computer is required.

CGT 113 Publishing—QuarkXPress (2 - 0) 2 Cr. Hrs.

This course is intended to introduce students to the field of publishing design using another professional page layout software package. Emphasis is on learning the software and on applying basic design skills to computer generated design. Students are instructed in the fundamentals of page layout, typography, working with color and color separations, and preparing camera ready documents. Students are expected to be familiar with basic functions of the computer before beginning the class.

Prerequisite: Previous experience with a computer is required.

CGT 123 Illustration—Illustrator (3 - 0) 3 Cr. Hrs.

This course is intended to introduce students to the field of graphic design and illustration using professional computer drawing software. Emphasis is on learning the software and on applying basic design skills to the computer generated image. Students are instructed in the fundamentals of drawing on the computer, working with color, working with type, and combining type and image for effective communication. Students are expected to be familiar with basic functions of the computer before beginning the class.

Prerequisite: Previous experience with a computer is required.

CGT 125 Digital Imaging 1—Photoshop (3 - 0) 3 Cr. Hrs.

This course introduces students to the field of digital imaging and electronic photographic manipulation using Adobe Photoshop. Emphasis is placed on developing strong software and digital imaging skills plus reinforcement of design and creative skills. This will be accomplished through a series of progressively challenging assignments, which mirror professional studio projects. The class will progress the student's skills from basic application knowledge to advanced image manipulation techniques. The assignments will be applicable for both print and screen based imagery. Students are expected to have some computer experience and be familiar with basic functions of the computer before beginning the class.

Prerequisite: Previous experience with a computer is required.

CGT 127 Publishing—InDesign (3 - 0) 3 Cr. Hrs.

This course introduces students to the field of publishing design using Adobe InDesign. Emphasis is on learning the software and on applying basic design skills to computer generated design. Students will have the opportunity to learn the fundamentals of page layout, typography, working with color and color separations, and preparing documents for printing. Students are expected to have some computer experience and be familiar with basic functions of the computer before beginning the class.

Prerequisite: Previous experience with a computer is required.

CGT 135 Web Graphics (3 - 0) 3 Cr. Hrs.

This course introduces the student to the World Wide Web as a new communications media. The Web has made a global instant publishing media available to those who wish to participate. This course covers techniques for creating graphics, such as GIF, JPG, PNG, and animated GIFs, image maps, rollovers, backgrounds, icons and buttons for the Web. This includes skills in design, optimization compression techniques, color techniques, color theory and an understanding of multiple platforms, operating systems and browser limitations.

Prerequisite: CGT 125.

CGT 141 Multimedia—Director (3 - 0) 3 Cr. Hrs.

This course is designed to provide an introduction to multimedia production using the Macromedia Director software. An overview of all the features of Director will be provided with special emphasis on animation techniques, basic scripting, memory management, importing/exporting considerations, and production planning.

Prerequisite: CGT 125.

CGT 150 Typography (2 - 0) 2 Cr. Hrs.

This course introduces the student to the principles of typography by investigating letter forms as both an element of design and as a medium of communication. Concentration is on typeface identification, effective use of type to convey information, measuring systems, and application of typography to computer graphics.

Prerequisite: ART 105 or ART 106.

CGT 151 Survey of Design (2 - 0) 2 Cr. Hrs.

This course introduces the student to the history of graphic design and its application as a form of mass communication. Students examine how social, cultural, and technical considerations have influenced the way information is designed for publication. Students learn how an understanding of historical, cultural and social influences lead to more effective graphic design in the modern world.

Prerequisite: None.

CGT 152 DHTML—Screen Design (2 - 0) 2 Cr. Hrs.

This course introduces the student to the unique design principles for electronic screen design. Using DHTML, students will design for screen and understand the technical aspects of DHTML coding. Basic design principles, elements, and processes for web design and general project management will be used to analyze and create web sites. Designing for the World Wide Web (www) or for an interactive computer screen or CD-ROM requires a new look at design principles, visual communication and information organization.

Prerequisite: Previous experience with a computer is required.

- CGT 153 Portfolio Preparation (2 - 0) 2 Cr. Hrs.**
This capstone class prepares the student for finding a job in the field of graphic design. In this course students will assemble their previous work into a professional presentation. In doing so, the students' strengths and weaknesses will be discovered and discussed. At least one project will be assigned to specifically address the individual student's portfolio needs. During the course students will create a traditional resume and customize it to attract the attention of a more creative eye. An identity project, including a working logo, business card, letterhead and promotional item which fits the student's style and personality will be designed and created for practical application.
Prerequisite: Completion of at least six CGT classes.
- CGT 154 Sound Design (2 - 0) 2 Cr. Hrs.**
This course provides an introduction to the basic concepts of sound design for multimedia delivery systems. It will emphasize necessary hardware, sound formats, MIDI applications, sound editing and synchronization, and aesthetic considerations.
Prerequisite: CGT 141. CGT 206 concurrently recommended.
- CGT 155 Storyboarding (2 - 0) 2 Cr. Hrs.**
This course provides the student a working knowledge of storyboarding. It integrates creative expressions, emotional impressions and production processes into a cohesive conclusion. It provides the student an opportunity to expand a creative understanding of audio, cinematography, lighting, and staging. Storyboarding is a basic need for the student pursuing careers in multimedia, interactive and performance arts. The course will use a digital sound editing application and Adobe Premiere to create a final demonstration of this skill set.
Prerequisite: Previous experience with a computer is required.
- CGT 156 Photography (2 - 0) 2 Cr. Hrs.**
The course is designed to instruct the student on photographic principles that affect exposure, image structure, composition, printing and interface with digital media. Student will experience hands-on photography sessions that demonstrate lighting, visual effects and composition development based on contrast and focal point awareness. In conjunction with the camera, the student will explore advanced digital imaging options, the zone system and creative merging techniques. Course materials are designed for the student pursuing a graphic technology career. The student will be required to have a 35mm camera and is responsible for film and processing costs.
Prerequisite: CGT 125.
- CGT 157 Prepress (2 - 0) 2 Cr. Hrs.**
Every successful piece of graphic design succeeds on both the technical and conceptual level. This course focuses solely on the technical—or execution—part of graphic design as it relates to printed material. Students will have the opportunity to learn how commercial printing is done and how the printing process imposes limits on graphic design. Students will learn how to work with printers to achieve the best possible results.
Prerequisite: CGT 123, CGT 125, and CGT 127.
- CGT 206 Multimedia—Lingo (3 - 0) 3 Cr. Hrs.**
This course provides advanced instruction in Macromedia Director with emphasis on the multidisciplinary nature of multimedia. The student is instructed in the vocabulary and syntax of the Lingo scripting language, including scripting to control navigation, animation, sound, video, and memory management.
Prerequisite: CGT 141.
- CGT 208 Premiere (3 - 0) 3 Cr. Hrs.**
This course will expand the students understanding of digital nonlinear editing. Students will learn how to manipulate digital media: digital video and audio, scanned images, and digitally created artwork and animations stored in several formats. Students will use programs such as Adobe Premiere or other application to arrange digital source files sequentially, add transitions and effects, and create graphics and 2D animation.
Prerequisite: CGT 123, CGT 125, CGT 127, and CGT 155.
- CGT 211 Flash (3 - 0) 3 Cr. Hrs.**
Flash is a vector-based design program for online display. This course provides the student a working knowledge of Flash. Students will focus on the capabilities for creating motion graphics and interface design for visual communication on the Web.
Prerequisite: CGT 110 or CGT 123 or experience with a vector-art drawing program.
- CGT 212 Flash Action Scripting (3 - 0) 3 Cr. Hrs.**
This course provides an in-deph exposure to the Flash Action Scripting language. Students will learn to write scripts which extend and enhance the capabilities of the Macromedia Flash software. During the semester, each student will design and produce a complex, highly interactive project—such as a computer game, computer-based training module, or information kiosk. Students should have a working knowledge of Flash before beginning this class.
Prerequisite: CGT 211 or equivalent experience with Flash.
- CGT 215 Motion Graphics (3 - 0) 3 Cr. Hrs.**
This course develops creative freedom and control for designing sophisticated motion graphics and visual effects for film, video, multimedia and the Web. Students will integrate previously learned applications into motion-graphics using Adobe After Effects and/or related applications. Students will develop an understanding of motion control and keying capabilities plus audio and visual effects.
Prerequisite: CGT 123, CGT 125, CGT 127, CGT 155, and CGT 208.
- CGT 226 Digital Imaging 2—Photoshop (3 - 0) 3 Cr. Hrs.**
This course will further explore the uses of photography and the digital image in the field of graphic design. Students will learn how object-oriented graphics programs can interface with bitmap oriented programs such as Photoshop. Students will make extensive use of scanners and digital cameras to design and create graphic design projects including artwork for Web pages and multimedia applications.
Prerequisite: CGT 123, CGT 125, and CGT 127.
- CGT 231 Electronic Publishing (3 - 0) 3 Cr. Hrs.**
This course emphasizes the integration of design and software skills to create more effective layouts for print media. Students will explore photography and digital imaging, illustration, graphic design and page layout. Students learn to use type effectively, create and integrate images and type, set up projects for printing, apply design principles to create effective and readable documents. Instruction in advanced software techniques and in the use of a variety of peripherals is featured. Emphasis will be on the application of software and design skills to a variety of realistic graphic design projects.
Prerequisite: CGT 110, CGT 113, and CGT 226.

CGT 236 Web Design (3 - 0) 3 Cr. Hrs.

This course emphasizes the integration of design principles and software skills to create effective Web sites. Students will focus on advanced design features such as tables, DHTML (Dynamic HTML), stylesheets, frames, forms, layers, and importing images and other media. Students will apply software and design skills to a variety of realistic web design projects. Students will explore the World Wide Web: how the Web works, common browsers, assembling web pages and linking documents. Macromedia Dreamweaver or current HTML software authoring/editor will be used. The student will look at online design considerations, such as download times, optimizing file size and file formats.

Prerequisite: CGT 135 and CGT 152.

CGT 242 Multimedia (3 - 0) 3 Cr. Hrs.

This course provides advanced instruction in multimedia production. The course emphasizes the production process, the multidisciplinary nature of multimedia, integration of components, and design of nonlinear projects. The student is instructed in elements of graphic design, digital sound and music, integrating digital video, and scripting. Each student will produce a large scale multimedia project during the course.

Prerequisite: CGT 206.

CGT 244 History of Animation and Graphic Design (3 - 0) 3 Cr. Hrs.

This class will give students a context for understanding the rich and unique history of animation and graphic design. In addition to learning important milestones in these fields, students will develop their eye and their aesthetic appreciation of this kind of art. They will also be exposed to the historical contingencies that lead to different developments. They will be exposed to animations and graphic design from all over the world. This course will also stimulate students in their own creative endeavors in their chosen field.

Prerequisite: None.

CGT 246 2D Animation (3 - 0) 3 Cr. Hrs.

This course will further explore the uses of audio, graphics and video in the field of motion graphics. Students will learn how object motion graphics programs can inter relate to develop informational and promotional media. Students will make extensive use of 2 dimensional, motion and still graphics to design and create projects for video, Web pages and/or multimedia applications.

Prerequisite: CGT 208 and CGT 215.

CGT 247 3D Animation 1 (3 - 0) 3 Cr. Hrs.

This course is designed to increase the student's familiarity with the 3D interface, concepts of 3D space, and animation. It will provide an introduction to primitives, some modifiers and box-modeling techniques. Students will be exposed to lighting, texture mapping concepts, and basic animation techniques. Students will also develop skill sets to create simple animations.

Prerequisite: CGT 123, CGT 125, and CGT 127.

CGT 248 3D Animation 2 (3 - 0) 3 Cr. Hrs.

This class follows-up on the skill sets that students were exposed to in 3D Animation 1. In this class students will learn modeling techniques at a more sophisticated level. These techniques will include polygon, patch, nurbs and subdivision surface modeling. They will also learn about the aesthetics of intelligent model building. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab. This course should be taken concurrently with 3D Animation 3 and 4 as the products of this course will be shared in those classes.

Prerequisite: CGT 247.

CGT 249 3D Animation 3 (3 - 0) 3 Cr. Hrs.

This class follows up on the skill sets that students were exposed to in 3D Animation 1. In this class students will gain a much deeper understanding of the aesthetics and software technology of texture mapping and lighting. They will learn about the aesthetics of good composition in general. They will also learn more about the technology and limitations of television as a delivery platform. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab. This course should be taken concurrently with 3D Animation 2 and 4 as the products of this course will be shared in those classes.

Prerequisite: CGT 247.

CGT 250 Practical Application (3 - 0) 3 Cr. Hrs.

Students will work in teams to research, develop, and execute graphic design projects for local businesses and corporations. Emphasis is on applying skills to real world projects and on developing a professional portfolio. Students are instructed in team building, project management, research and interviewing techniques. Projects and business partners will change from semester to semester.

Prerequisite: Completion of at least one of the following: CGT 231, CGT 236, or CGT 242.

CGT 251 Practical Application (3 - 0) 3 Cr. Hrs.

Students will work in teams to research, develop, and execute graphic design projects for local businesses and corporations. Emphasis is on applying skills to real world projects and on developing a professional portfolio. Students are instructed in team building, project management, research and interviewing techniques. Projects and business partners will change from semester to semester.

Prerequisite: Completion of at least one of the following: CGT 231, CGT 226, CGT 236, or CGT 242.

CGT 252 3D Animation 4 (3 - 0) 3 Cr. Hrs.

This class follows-up on the skill sets that students were exposed to in 3D Animation 1. In this class students will improve their understanding of the aesthetics and software technology involved in creating effective and convincing animation. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab. This course should be taken concurrently with 3D Animation 2 and 3 as the products of this course will be shared in those classes.

Prerequisite: CGT 248 and CGT 249.



- CGT 253 3D Compositing (3 - 0) 3 Cr. Hrs.**
In this class students will learn how to use 3D software and video compositing software together. They will learn the aesthetics of combining computer generated materials with live video. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
Prerequisite: CGT 248 and CGT 249 and CGT 252.
- CGT 256 Portfolio 3D—Reel Development (3 - 0) 3 Cr. Hrs.**
In this class students will pull together the complete 3D Modeling skill sets in order to create self-directed projects for a demo reel or web site.
Prerequisite: CGT 253.
- CGT 270 Internship (3 - 0) 3 Cr. Hrs.**
This internship is designed for the exceptional Computer Graphic Technology student. This course consists of 10–20 hours per week of off-campus work as an intern Graphic Designer with an approved business or company. Students must have completed one Practical Application class (CGT 250 or CGT 251). CGT Internships will be administered by a full-time faculty member of CGT. The instructor and the business partner will jointly evaluate the student.
Prerequisite: CGT 250 or CGT 251 and consent of department.
- CGT 298 Honors Studies (3 - 0) 3 Cr. Hrs.**
An opportunity for the talented student to explore individually, in depth, under the guidance of a faculty member, a topic, issue, or problem related to the field of Computer Graphics Technology. Available to Dean's List level students or equivalent and with the consent of the instructor.
Prerequisite: Students must complete (12) twelve hours of course work, Dean's List status (GPA 3.5), and consent of faculty and associate dean.



COMPUTER INFORMATION SYSTEMS

Associate Dean: Bruce Sweet, MA
Instructors: Professor David W. Ruokolainen, MS
Professor William Schlick, BEE
Professor Jerry Wale, MSEE
Associate Professor Doris McPherson, EdD
Assistant Professor Timothy Ellis, BBA
Assistant Professor Paul Turnage, MS
Instructor Rodolfo Santiago, MBA
Adjunct Faculty

NOTE: All the CIS courses listed below require the student to spend time outside the classroom in a specialized laboratory situation to complete assignments. State-of-the-art computer facilities are available for student use.

- CIS 105 Computer Orientation (1 - 0) 1 Cr. Hr.**
This course is designed for students who have had little or no experience with computers. Topics include introduction to the Windows based operating systems and some word processing concepts. Basic word processing concepts will be introduced using the hands-on approach. Successful completion of this course meets the minimum requirement needed to qualify a student to use one of the College's computers during open lab hours.
Prerequisite: None.
- CIS 115 Introduction to Computer Based Systems (3 - 0) 3 Cr. Hrs.**
This is a three-credit-hour survey course of micro, mini, and mainframe computer systems. Class lectures include the following topics: hardware and software fundamentals; telecommunication; networks; graphics; hypermedia; multimedia; systems design and development; artificial intelligence; computers at work, school, home; the Internet; computer security and risks; computers and the future. Approximately one-third of class time is spent as a hands-on course using personal computers to create web pages using HTML and the Windows Operating System.
Prerequisite: Computer and keyboarding experience highly recommended.
- CIS 120 Software Applications for the Microcomputer (3 - 0) 3 Cr. Hrs.**
This course is designed to provide practical, hands-on experience with knowledge for evaluation of popular software packages for the microcomputer. Current software products will be introduced and explored with emphasis in the areas of word processing, electronic spreadsheets and database management. Actual lab experience is planned in these areas. Other software packages that are timely and relevant will be introduced. A culminating project will be the integration of software packages into the overall design of the data processing requirements of a small business.
Prerequisite: Keyboarding experience highly recommended.
- CIS 122 Microsoft Outlook (2 - 0) 2 Cr. Hrs.**
This course is designed to provide practical, hands-on experience with Microsoft Outlook which is a flexible messaging and personal information management program used to send and receive email, as well as to manage messages, appointments, contacts, and tasks.
Prerequisite: CIS 120 or equivalent.

- CIS 123 Introduction to E-Commerce (3 - 0) 3 Cr. Hrs.**
This course is designed to familiarize individuals with current and emerging electronic commerce technologies using the Internet. Topics include Internet technology for business advantage; managing electronic commerce funds transfer; reinventing the future of business through electronic commerce; business opportunities in electronic commerce; electronic commerce Web site design; social, political and ethical issues associated with electronic commerce; and business plans for technology ventures. The purpose of this course is to educate a new generation of managers, planners, analysts, and programmers of the realities and potential for electronic commerce.
Prerequisite: None.
- CIS 125 Principles of Information Security (3 - 0) 3 Cr. Hrs.**
This course examines the field of information security to prepare individuals for their future roles as business decision makers. This course provides the foundation for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system, with appropriate intrusion detection and reporting features. It covers both the managerial and the technical aspects of this exciting discipline and addresses knowledge areas of CISSP (Certified Information Systems Security Professional) certification.
Prerequisite: None.
- CIS 129 Introduction to Programming Logic (3 - 0) 3 Cr. Hrs.**
An introductory programming course where students will learn the fundamentals of program logic and design. Heavy emphasis is placed on program design techniques. Students will develop programs using top-down design, structured programming, and modular development methods.
Prerequisite: None.
- CIS 170 Microsoft Windows (3 - 0) 3 Cr. Hrs.**
This course is designed to explore the features of the latest Windows desktop operating system. This includes modules such as digital media, electronic messaging, networking, remote assistance, etc. In addition to studying the features that are included in Windows, the class will also emphasize customizing Windows to meet the user's needs. The students will learn to work with the desktop environment, documents and folders, toolbars and taskbar, control panel, file and web searching tools, Help files, and computer maintenance and performance optimization tools. It is recommended that students have experience using microcomputers and have proficiency in keyboard and mouse usage.
Prerequisite or Corequisite: CIS 120 or microcomputer experience.
- CIS 171 NetPrep Introduction to Networking (3 - 0) 3 Cr. Hrs.**
This course introduces students to the key concepts of data communications, telecommunications and networking. It provides a solid introduction to networking fundamentals including key acronyms, protocols, and components that are essential to understanding how networks operate today. Upon completion, the student will have a solid understanding of how information travels from a source computer to a destination computer across a complex network.
Prerequisite: Computer experience highly recommended.
- CIS 175 Visual Basic (3 - 0) 3 Cr. Hrs.**
This course is designed to teach students Visual Basic for the primary purpose of programming Windows applications. The structure and the syntax of the language will be covered which includes forms, projects, objects and events. The course will also cover debugging and error handling, file input and output and object linking and embedding (OLE) methods. It is recommended that students have experience using Microsoft Windows before taking this course.
Prerequisite: CIS 129 and CIS 170, or equivalent Windows experience.
- CIS 176 Visual Basic.NET (3 - 0) 3 Cr. Hrs.**
This course is designed to provide students with the knowledge and skills needed to develop applications in Microsoft® Visual Basic®.NET for the Microsoft .NET platform. The course focuses on user interfaces, program structure, language syntax, and implementation details. It is recommended that students have experience using Microsoft Windows before taking this course.
Prerequisite: CIS 129 and CIS 170, or equivalent Windows experience.
- CIS 177 Visual Basic for Applications (3 - 0) 3 Cr. Hrs.**
Visual Basic for Applications (VBA) is a programming language found in many Microsoft and non-Microsoft products. VBA allows users to customize their applications by creating more convenient ways to perform common tasks. VBA is fast becoming the standard as third-party software publishers license VBA to include in their applications. As a result, rather than learning a separate language for each software application, students need only learn one.
Prerequisite: CIS 129.
- CIS 178 Technical Microsoft Windows (3 - 0) 3 Cr. Hrs.**
This course is designed to serve the needs of students and information systems professionals who are interested in learning more about the features of the Windows 2000 professional operating system, as well as individuals who are interested in obtaining Microsoft certification on this topic. This course includes real world examples, interactive activities, and hands-on projects that reinforce key concepts in preparing for Microsoft certification exam #70-210. It is recommended that students have experience using microcomputers and have proficiency in keyboard and mouse usage.
Corequisite: CIS 120 or microcomputer experience.
- CIS 180 Spreadsheet Applications—Current Software (3 - 0) 3 Cr. Hrs.**
This course teaches how to analyze comprehensive problems and design the worksheet solution in light of established goals. Worksheets will be created and modified that solve problems and that are useful decision-making tools. Emphasis is on designing solutions to problems by thinking through the problems and developing logical solutions to solve the problems using a comprehensive host of features in a popular spreadsheet software package.
Prerequisite: CIS 120.

- CIS 185 Introduction to HTML (3 - 0) 3 Cr. Hrs.**
This course provides advanced instruction in the most important topics of HTML. The course begins with the basics of creating web pages with graphics and links, using tables, and controlling page layout with frames. Advanced topics include cascading style sheets, an introduction to programming with JavaScript, and working with JavaScript objects and events. The student is instructed in elements of web page design. Each student will produce a large-scale multimedia web page as a semester project.
Prerequisite: CIS 115 or equivalent.
(Assumes students have learned basic operating system and browser skills.)
- CIS 210 Programming with “C” (3 - 0) 3 Cr. Hrs.**
The course is designed for those students who are pursuing a career in computer programming. The students will learn this “C” programming language by using actual problems from industry and business. The students will thoroughly examine all the commands, structures and functions of the “C” programming language.
Prerequisite: CIS 129 or equivalent.
- CIS 211 Introduction to C++ (2 - 0) 2 Cr. Hrs.**
This course is an introduction to the C++ Programming language. The student will learn the basics of the C++ language up through and including control structures, functions, and pointers. This course is intended for those who want a general knowledge of the C++ language.
Prerequisite: CIS 129 or equivalent
- CIS 212 Introduction to CGI using Perl (3 - 0) 3 Cr. Hrs.**
This course covers the creation of interactive Web pages, using CGI scripts written in the Perl programming language. The student will learn how to build Web pages that use hyperlinks, forms, data files, and databases. The student will learn the use of subroutines, redirects, cookies, and hidden fields.
Prerequisite: CIS 129 or equivalent.
- CIS 215 Advanced Software Applications for the Microcomputer (3 - 0) 3 Cr. Hrs.**
This course is designed for students who have a working knowledge of the microcomputer and word processing, spread sheet, and database packages. Advanced features of the software are developed building on a foundation of a beginning software applications course.
Prerequisite: CIS 120 or CIS 180 recommended or written approval of the CIS Department.
- CIS 221 Advanced C++ (2 - 0) 2 Cr. Hrs.**
This course is a continuation of the Introduction to C++ Programming language course. The student will learn the advanced concepts of the C++ language up through and including: operator and function overloading, inheritance, virtual functions, polymorphism, stream I/O, templates, exception handling, file processing, and data structures. This course is intended for those who desire an advanced knowledge of the C++ language.
Prerequisite: CIS 211.
- CIS 223 Introduction to C# (3 - 0) 3 Cr. Hrs.**
This course is an introduction to the C# Programming language. The student will learn the basics of the C# language up through Windows programming and including creating Web server form controls. This course is intended for those who want a general knowledge of the C# language, part of the Microsoft VisualStudio.NET.
Prerequisite: CIS 129 or equivalent.
- CIS 225 Database Management Systems for the Microcomputer (3 - 0) 3 Cr. Hrs.**
This course covers a popular relational database, Microsoft Access 2000, in depth. Emphasis is on creating, editing, sorting, linking and querying databases. Forms, switchboards, and custom reports will be created. Advanced topics include designing and creating a complete application system, as well as programming in SQL. Emphasis will also be on understanding the concepts behind database management system design, to prepare students to be both users and developers.
Prerequisite: CIS 115.
- CIS 226 Advanced Database Using PL/SQL with Oracle (3 - 0) 3 Cr. Hrs.**
This course covers the creation of Oracle databases using PL/SQL programming language. The class will also teach the use of Oracle’s procedure builder, form builder, report builder, and graphics builder.
Prerequisite: CIS 225 or equivalent.
- CIS 227 Introduction to Structured Query Language (SQL) (1 - 0) 1 Cr. Hr.**
This course teaches Structured Query Language on the introductory and intermediate levels. The syntax and application of the language will be covered in a practical, hands-on format. Students will use SQL to create and populate tables, construct single-table queries, query multiple tables, update data in tables, administer databases, and produce reports. MS Access will be used as the primary vehicle to present SQL commands.
Prerequisite: CIS 225 or equivalent.
- CIS 233 Active Server Pages (3 - 0) 3 Cr. Hrs.**
Design and maintain interactive and dynamic web applications within the server-based scripting environment of Active Server Pages. With Active Server Pages, you will learn how to work with arrays, collections, and control structures. Using ASP, you will work with cookies, ADO, ODBC, and OLE Databases.
Prerequisite: CGT 152 or a basic knowledge of HTML or equivalent programming experience.
- CIS 235 Microcomputer Operations (3 - 0) 3 Cr. Hrs.**
Advanced operating systems features including custom batch files, backup and disk organization will be covered. Microcomputer peripherals and upgrade features will also be emphasized. The students will examine the inside of the computer and practice adding upgrades, configuring systems, using diagnostic maintenance programs and installing software packages.
Prerequisite: CIS 170 or equivalent.
- CIS 238 JavaScript (3 - 0) 3 Cr. Hrs.**
JavaScript is a powerful, object-based scripting language that can be embedded directly into HTML pages. It allows you to create dynamic, interactive web-based applications that run completely within a web browser. The class covers JavaScript as a client-side scripting language.
Prerequisite: CGT 152 or a basic knowledge of HTML.
- CIS 250 Systems Development and Design (4 - 0) 4 Cr. Hrs.**
The student is made aware of various tools available to the systems analyst in solving business problems. The more important, basic tools are used by the student in the design of a system for a practical business application. Emphasis is placed on the communication between the systems analyst and other levels of management. “Selling” of new systems and methods is stressed. Detailed steps of each phase of systems design are shown in their relationship to the overall study.
Prerequisite: Microsoft Office experience highly recommended.

- CIS 251 IT Project Management (3 - 0) 3 Cr. Hrs.**
This course presents the fundamental principles, practices, and tools necessary to effectively manage Information Technology projects. Nine project management knowledge areas will be applied including integration, scope, time, cost, quality, human resources, communications, risk, and procurement. The five process groups—initiating, planning, executing, controlling, and closing—will be employed in IT projects. Microsoft Project software will be taught and used to manage some of the details of assigned projects.
Prerequisite: Basic knowledge and/or experience in the field of IT.
- CIS 255 Introduction to LINUX (3 - 0) 3 Cr. Hrs.**
This course is designed for students pursuing careers in computer information systems or currently in the industry. This is an introductory course that provides an overview of the LINUX operating system. A hands-on approach to common LINUX applications is used. Topics discussed include the LINUX operating system, basic LINUX desktop and terminology, LINUX utilities, and basic bash programs.
Prerequisite: CIS 170 or equivalent experience.
- CIS 256 Introduction to XML (3 - 0) 3 Cr. Hrs.**
An introduction to XML programming. The student will become familiar with Cascading Style Sheets, Document Type Definitions, Schemas, and Document Object Models.
Prerequisite: CIS 129 and a course in HTML or Java or equivalent.
- CIS 260 Introduction to UNIX (3 - 0) 3 Cr. Hrs.**
This course is designed for students pursuing careers in computer information systems, or are currently working in industry. This is an introductory course that provides an overview of the UNIX operating system. A hands-on approach to common, everyday UNIX applications is used. Topics discussed: the UNIX operating system philosophy, basic UNIX commands and terminology, UNIX utilities, and an introduction to shell programming.
Prerequisite: None.
- CIS 265 Networking 1 (3 - 0) 3 Cr. Hrs.**
This course is designed to introduce the student to communications terminology and technology using telecommunications and a local area network (LAN). The student will practice installing and maintaining a LAN.
Prerequisite: CIS 235.
- CIS 271 NetPrep Local Area Networks (3 - 0) 3 Cr. Hrs.**
This course begins with the basics of Local Area Networks (LAN) concepts, technologies, components and protocols inherent in today's local area networking environments. Students will see how computers are connected together to form peer-to-peer and server-based networks, and discover the functionality and uses of a router, bridge, switch, hub and repeater. The two most commonly used network operating systems today, Microsoft's NT and Novell's NetWare, are also introduced in this course. VLANs and the various forms of Ethernet technology such as Fast Ethernet are also explained.
Prerequisite or Corequisite: CIS 171 or equivalent experience.
- CIS 272 NetPrep Wide Area Networks (3 - 0) 3 Cr. Hrs.**
This course introduces students to fundamental concepts of how information is transported over a Wide Area Network (WAN). Modes of communications used, analog vs. digital transmission will be discussed. Devices such as modems, microwaves, and satellites will be introduced. The lower physical layers of WANs, protocols used and methods employed to format data bits sent will be introduced. Topics on Switched Networks, T-carriers, Synchronous Optical Network (SONET), High-Level Data Link Control (HDLC), Serial Line Internet Protocol (SLIP), Point-to-Point Protocol (PPP), Integrated Services Digital Network (ISDN), Frame Relay, and asynchronous transfer rate (ATM) will be discussed.
Prerequisite or Corequisite: CIS 171 or equivalent experience.
- CIS 273 NetPrep TCP/IP and Network Architectures (3 - 0) 3 Cr. Hrs.**
This course introduces students to the key concepts of Transmission Control Protocol/Internet Protocol (TCP/IP). The world's largest network, the Internet, is also one of the world's most powerful communication tools. Students learn the underlying applications, components and protocols of TCP/IP and its necessary link to the Internet, and how to identify TCP/IP layers, components and functions. Navigation tools, TCP/IP services and troubleshooting methodologies are also reviewed.
Prerequisite or Corequisite: CIS 171 or equivalent experience.
- CIS 275 Advanced Visual Basic (3 - 0) 3 Cr. Hrs.**
This course is designed for students who already have a working knowledge of Visual Basic. The course will cover the fundamental concepts in more detail and at a greater depth, as well as introduce more advanced concepts and techniques. These concepts and techniques will include: error handling and debugging, sequential, random and binary file processing, object-oriented programming, activeX, database management, networking and the Internet, and multimedia.
Prerequisite: CIS 175 or equivalent.
- CIS 276 Networking 2 (3 - 0) 3 Cr. Hrs.**
This course is designed to follow the introduction to networking (Networking 1) course. Students will learn LAN configurations and protocols. Installation, management and troubleshooting Microsoft Windows 2000 Server on a local area network. Additional topics on hardware, clients, domains, user accounts and printers will be covered.
Prerequisite: CIS 265.
- CIS 277 Network Infrastructure (3 - 0) 3 Cr. Hrs.**
This course is designed to serve the needs of students and information systems professionals who are interested in learning more about how to install, configure, and troubleshoot various network services for a Windows® network infrastructure.
Prerequisite: CIS 273 or equivalent experience.
- CIS 278 Network Environment (3 - 0) 3 Cr. Hrs.**
This course is designed to serve the needs of students and information systems professionals who are interested in acquiring the knowledge to implement, manage, and troubleshoot existing network and server environments based on the Microsoft® Windows® operating system.
Prerequisite or Corequisite: CIS 273 or equivalent experience.

- CIS 281 Data Structures and Introduction to Windows Programming (3 - 0) 3 Cr. Hrs.**
This course is designed for students pursuing careers in computer information systems or are currently working in industry. This is an advanced course in programming using C++. It will examine the use of abstract data structures in programming. The course is also an introduction to Windows programming.
Prerequisite: CIS 211 and CIS 221 or equivalent.
- CIS 283 NetPrep Introduction to Internet Technologies (3 - 0) 3 Cr. Hrs.**
The Internet Technologies course begins with an overview of the Internet, its history, organization and structure. Once the general structure is understood, we look at different ways to access the Internet, both as an individual user and as a group of users. Web clients and servers and the underlying protocols used by both are also covered as well as the requirements for building a web server. The final portion of the course reviews the many applications that are used for retrieving information or providing information across this global network of networks. This course is intended for industry professionals that would like an understanding of the structure and function of the Internet.
Prerequisite or Corequisite: CIS 171 or equivalent experience.
- CIS 284 NetPrep Internetworking Devices (3 - 0) 3 Cr. Hrs.**
This advanced course is intended for networking professionals and other participants who grasp the general concepts of data communications and networking, but would like a more detailed understanding of internetworking and internetworking devices. This course focuses on the issues that are encountered with network growth and the internetworking components that offer solutions to these problems. The components covered in this class include repeaters, hubs, bridges, switches, routers and gateways. Network Management and the Simple Network Management Protocol (SNMP) are also discussed.
Prerequisite: CIS 273 or equivalent experience.
- CIS 285 NetPrep Process and Protocols (3 - 0) 3 Cr. Hrs.**
This is an advanced course intended for networking professionals and students who already grasp the general concepts of data communications and networking, but would like a more detailed understanding of the processes and protocols used in today's networks. Network architectures will be discussed from an OSI model perspective of the networking protocol stack, and a detailed analysis of the protocol will ensue using traces taken with protocol analyzers.
Prerequisite: CIS 273 or equivalent experience.
- CIS 286 NetPrep Network Analysis and Design (3 - 0) 3 Cr. Hrs.**
This is an advanced course intended for networking professionals and students who already grasp the general concepts of data communications and networking, but would like a more detailed understanding of network design and analysis. This course will present methods for analyzing, designing and managing computer networks.
Prerequisite: CIS 273 or equivalent experience.
- CIS 290 Object-Oriented Programming with Java (3 - 0) 3 Cr. Hrs.**
An introduction of object-oriented programming using Java. Students will develop real world application programs and Web-based applets based on object-oriented programming concepts (encapsulation, inheritance, and polymorphism).
Prerequisite: CIS 129 or equivalent.

COMPUTER SERVICE

Associate Dean: Bruce Sweet, MA
Instructors: Professor William Schlick, BEE
Professor Jerry Wale, MSEE
Adjunct Faculty

COMPS 124 Introduction to Personal Computers and Software (3 - 0) 3 Cr. Hrs.

This course is designed to introduce the student to the hardware and software aspects of the personal microcomputer. The student will learn to identify the key components of the microcomputer. Numbering systems, digital logic, memory devices, digital circuits, and systems will be introduced to the student. An introduction to MS-DOS operating systems will be covered, as well as exploring the features of the Microsoft Windows operating system. The student will learn how a microcomputer operates, how data is organized on a hard drive, how to format disks, how to use zip disks, and how to transfer data. The student will work with batch programs and learn to install commercial software on the microcomputer. The student will gain experience using microcomputers and develop proficiency in keyboard and mouse usage.
Prerequisite: None.

COMPS 126 Technical Programming (3 - 0) 3 Cr. Hrs.

The student will write a series of technical related programs in the Visual Basic language. The student will also use the computer to solve problems relating to his/her degree program.
Corequisite: COMPS 124.

COMPS 147 Computer and Peripheral Maintenance and Management (2 - 2) 4 Cr. Hrs.

This course is designed to introduce the student to PC and peripheral maintenance and management. The student will learn how to maintain, upgrade, and support a PC system. System improvement will center on topics of hardware, as well as software. Students will examine proper system and component care, failure-prone items, and how to isolate, locate, and identify a failing component within the PC system.
Prerequisite: COMPS 126 and ELECT 127.



CORRECTIONAL SCIENCE

Associate Dean: Robert F. Pearce, MPA
Instructors: Adjunct Faculty

Note: COR 110 is required for the Criminal Justice Associate Degree.

- COR 110 Introduction to Corrections (3 - 0) 3 Cr. Hrs.**
This course blends theory and operational knowledge for corrections. Students learn about the early development of corrections, sentencing, prisons, probation, parole, prisoner rights, community corrections, the role of the correctional officer and current concerns.
Prerequisite: None.

CRIMINAL JUSTICE

Associate Dean: Robert F. Pearce, MPA
Instructors: Professor Orville Kappen, MA
Adjunct Faculty

- CJ 102 Organization and Administration of Law Enforcement Agencies (3 - 0) 3 Cr. Hrs.**
Management, operations, communication, budgeting, recruiting, training and public relations in law enforcement.
Corequisite: ENG 100 or 101.
- CJ 104 Introduction to Security (3 - 0) 3 Cr. Hrs.**
A view into the private side of law enforcement. Career opportunities, history of both private and public law enforcement and their interrelationships. Liabilities of both sides.
Prerequisite: None.
- CJ 107 Police Field Operations (3 - 0) 3 Cr. Hrs.**
Purpose, methods, types and means of law enforcement patrol. Accident prevention and effective traffic control, interviewing techniques, crimes in progress, stress survival, and the use of force. How to conduct preliminary investigations, unlawful assembly, and riot control.
Prerequisite: None.
- CJ 113 Introduction to the Criminal Justice System (3 - 0) 3 Cr. Hrs.**
Course covers the overall system of criminal justice from crime detection to the release and revocation of prisoners. The student will examine the role of law enforcement officers, corrections officers, probation officers, defense attorney, prosecutor and judge as they relate to the defendant. The student will analyze the components of the system (law enforcement, courts and corrections) with emphasis on their interrelationships and expectations.
Prerequisite: None.
- CJ 201 Criminal Investigation (3 - 0) 3 Cr. Hrs.**
Criminal investigation, techniques of surveillance; collection, recording and preservation of evidence. Analysis of evidence and use of science laboratory. Cooperation with other law enforcement agencies.
Prerequisite: None.
- CJ 209 Basic Criminalistics (2 - 2) 3 Cr. Hrs.**
This course acquaints students with proper techniques of criminalistics. They will have an opportunity to perform investigations in simulated crime scene situations using scientific investigative techniques involving collection, presentation, and interpretation of physical evidence.
Prerequisite: None.
- CJ 211 Criminal Law and Procedures (3 - 0) 3 Cr. Hrs.**
Elements of criminal law, purposes and function. Laws of arrest, search and seizure, rights and duties of officers and citizens. Elements necessary to establish crime and criminal intent. Sources of criminal law, criminal responsibility and general court procedures.
Prerequisite: CJ 113 and CJ 102.
- CJ 212 Criminology (3 - 0) 3 Cr. Hrs.**
Theories of crime causation, behavioral systems in crime (organized white collar crime), nature and extent of crime, law as social control, history and philosophy of punishment, contemporary correctional techniques.
Corequisite: ENG 100 or 101.
- CJ 221 Juvenile Justice (3 - 0) 3 Cr. Hrs.**
Problems of juvenile delinquency, theories which explain juvenile delinquency, work of youth agencies, legislative involvement and new approaches to the prevention of juvenile crime.
Prerequisite: SOC 201 or consent of department.
- CJ 286 Police Academy (13 - 25) 21 Cr. Hrs. (40 Hrs. Minimum Weekly)**
This course is designed to prepare recruits in the proper techniques of investigation, crime scene process, patrol procedures, operations and techniques, conflict mediation, report writing, detention and prosecution of prisoners, first aid, investigations, evidence collection, disaster control, civil disorders and tactical operations.
Prerequisite: Consent of department before acceptance to the Police Academy.



CULINARY ARTS

Executive Director of Development & Governmental Relations: John Walsh, JD
 Director: Bruce Konowalow, MA
 Instructors: Professor Joseph Decker, CMPC
 Professor Jeffrey Gabriel, CMC
 Professor Kevin Gawronski, CMC
 Professor Daniel Hugelier, CMC
 Assistant Professor Brian Polcyn, CEC
 Adjunct Faculty

Most courses are offered on a five-week, three per semester rotation.

CAP 090 Introduction to Professional Cooking Skill and Technique (4 - 0) 4 Cr. Hrs. A preprogram requirement.
 This course will provide a broad orientation to the aspiring chefs so that they will better understand what is required to succeed in the industry. Emphasis for discussion will be on professionalism, safety and sanitation, equipment, and identification of food products. Students will be required to purchase an initial set of hand tools for skill development.
Prerequisite: None.

CAP 124 Breakfast and Pantry (4 - 0) 4 Cr. Hrs.
 This course will teach students all the necessary procedures and principles in basic cooking skills as related to breakfast and pantry cookery. Topics covered are egg, potato, meat, and cereal cookery. Buffet setups will be covered. Recipe procedure will be taught. Pantry cookery skills include basic pantry operation: simple and composite salads, salad dressings, fruit trays, and cold sandwich preparation.
Prerequisite: CAP 090.

CAP 125 Pastries 1 (4 - 0) 4 Cr. Hrs.
 This course will teach students all the necessary procedures and principles in the art of creating and producing many variations of beginning pastries. Upon successful completion of the course, the student will be able to: use measuring equipment and understand equivalents and conversions; understand and know proper usage of baking and pastry terminology; learn hand tools and machinery; regulate and use an oven properly; understand health, safety and sanitation of work areas; and make pies, puddings, pastries, cakes, tortes and cookies.
Prerequisite: CAP 090.

CAP 128 Introduction to Food Techniques (4 - 0) 4 Cr. Hrs.
 This course will teach the basic fundamentals of cooking techniques. The student will understand the methods of basic sauces, stocks, coulis' and soup preparation. The student will learn to apply the appropriate cooking methods for specific cuts of meat, fish, poultry and game. Vegetable and starch cookery will be included.
Prerequisite: CAP 090.

CAP 141 Culinary Sanitation (2 - 0) 2 Cr. Hrs.
 The student will understand and apply basic sanitation techniques to the preparation of food products and in addition, will pass the required certification examination of the Educational Foundation. Topics are food borne illness, proper chemical usage, proper dish and pot washing, insect and rodent control, food storage and rotation, hazards in culinary environment, and state and national certification requirements.
Prerequisite: CAP 090 or equivalent.

CAP 142 Butchery (4 - 0) 4 Cr. Hrs.
 Students will learn commercial meat preparation, its fabrication, portion control and the importance of safe sanitary butchery practice. Students will select and prepare quality meats, fish and poultry for industry consumption and retail use. Students will be prepared to perform these important tasks in a safe and sanitary environment.
Prerequisite: CAP 090.

CAP 143 Dining Room Service (4 - 0) 4 Cr. Hrs.
 Upon successful completion of the course, the student will have the understanding to apply dining room procedures which include: identifying the seven service types; basic hot and cold beverage services; professional ethics; good self image; dependability, attitude, dedication, and understanding the art and science of employee relationships and the value of customer relationships.
Prerequisite: CAP 090.

CAP 144 Baking 1 (4 - 0) 4 Cr. Hrs.
 The student who completes this course will be able to understand different varieties of flour; know the purpose and chemical reaction of other ingredients in yeast doughs and quick breads; understand the nutritional value of baked goods; know how to use equipment for baking; understand proofing and fermentation of yeast products; understand different mixing methods; understand how to increase standard recipes, cost out a recipe; and produce French breads and rolls, hard rolls, soft rolls, pan breads, rye breads, whole wheat breads, corn bread, Danish pastry and coffee cakes, muffins, biscuits, quick breads, and cookies.
Prerequisite: CAP 090.

CAP 190 Externship (1 - 15) 3 Cr. Hrs.
 This course is designed to give the student without work experience a firsthand opportunity to gain working experiences in a quality run establishment while rotating through various work stations in that food service work environment. This is an elective course and requires department approval.
Prerequisite: CAP 090.

CAP 215 Charcuterie (4 - 0) 4 Cr. Hrs.
 Students in this course will acquire professional skills in variations of hors d'oeuvres and savories, seasonings, condiments, stuffed meats, curing, pickling, smoking of meat, fish and poultry. Proficiencies in sausage making, garde manger, pates, terrines, galantines and stuffed meats are learned.
Prerequisite: CAP 090.

CAP 227 Restaurant Cooking and Preparation (4 - 0) 4 Cr. Hrs.
 Students will participate in four workstations: Roast-Grill, Saute, Entremetier (middle station) and Garde Manger-Pantry. Students will learn cooking techniques and recipe development and the importance of consistency and clean work methods. Follow-through and plate presentation will also be taught.
Prerequisite: CAP 090.

CAP 229 International Cuisine (4 - 0) 4 Cr. Hrs.
 Students will learn the culture, history, and terminology of various international cuisines, and study their traditional and contemporary cooking techniques.
Prerequisite: CAP 090.

CAP 240 Pastries 2 (4 - 0) 4 Cr. Hrs.
 This course will cover the intricate methods of producing fine pastries, puddings, mousse, cakes, tortes, ice cream desserts, chocolate work, sugar work, candies, marzipan designs and wedding cakes. Instruction covers recipe expansion, food costs and presentation.
Prerequisite: CAP 090 and CAP 125.

CAP 241 Culinary Nutrition (2 - 0) 2 Cr. Hrs.
 Lectures on nutrition and nutrition's relationship to heart disease, cholesterol levels and body metabolism, are supported by actual meal preparation. Students will learn how to apply sound nutritional theories. The course stresses preparation of healthful foods that are pleasing to both the eye and the palate in order to cater to the growing number of health-minded customers.
Prerequisite: None.

- CAP 242 Á La Carte (4 - 0) 4 Cr. Hrs.**
Upon successful completion of this course, the student will understand the basic fundamentals of food cookery, pates, terrines, salads and cold meats. The student will be able to apply modern techniques in the preparation and presentation of food using saute, grill, using and understanding entermetier, garde manger, food storage, and proper lockdown/clean up procedures.
Prerequisite: CAP 090.
- CAP 243 Storeroom Operations (3 - 0) 3 Cr. Hrs.**
Upon successful completion of this course, the student will have the basic knowledge of purchasing, receiving and inventory control through the use of the computer and the application of computer software which will enhance his/her ability to run a more effective and profitable kitchen operation.
Prerequisite: CAP 090.
- CAP 247 Banquets and Catering (2 - 2) 3 Cr. Hrs.**
Upon successful completion of the course, the student will demonstrate his/her ability to display knowledge of a variety of catering operations. This will include planning, organizing, marketing, and executing receptions, parties, and special events. This is an elective course.
Prerequisite: CAP 090.
- CAP 260 Competitive Ice Carving (2 - 2) 3 Cr. Hrs.**
This course is for students who wish to further their culinary artistry by entering individual or team competitive ice carving events. This is an elective course.
Prerequisite: Proficiency evidenced in CAP/CM courses.
- CAP 265 Advanced Competitive Ice Carving (1 - 3) 3 Cr. Hrs.**
After completion, the student will be able to discuss safety procedures related to ice handling, describe tools and equipment used in ice carving, identify qualities of carving ice, and discuss proper care - sharpening of tools. Use of templates and production of basic carvings will be accomplished. Advanced carving ability incorporating joining, assembly and multi block will be learned. This is an elective course.
Prerequisite: CAP 260 or consent of department.
- CAP 267 Chocolatier (4 - 0) 4 Cr. Hrs.**
This course is designed to introduce the student to the handling techniques of chocolate. Students will learn to use artistic pieces to decorate cakes and adorn pastry buffets. Students will also be exposed to modeling and sculpting of chocolate centerpieces, chocolate truffle making, and cocoa paintings. This is an elective course.
Prerequisite: CAP 090 and CAP 125 or consent of department.
- CAP 295 Salon Competition 1 (2 - 2) 3 Cr. Hrs.**
Students will participate in a class which will build and refine their culinary skills as have been evidenced by the Chef Instructors. This first course will introduce the students to the requirements necessary to successfully compete in culinary competition. Students selected for this class can form the College Culinary Team. A number of field trips and training sessions, off campus, will be scheduled. This is an elective course and it fulfills Goal #8.
Prerequisite: Selection to participate made by the Chef Instructors.
- CAP 296 Salon Competition 2 (2 - 2) 3 Cr. Hrs.**
A continuation of Salon Competition 1 for students who have been selected to compete at state, national and international level culinary competition(s). The students will have demonstrated a proficiency for competition in Salon Competition 1 to be selected as participants in this advanced course. Selected students form a College Culinary Team and, as such a team, can represent Schoolcraft College in culinary competition(s).
Prerequisite: Selection to participate is made by the Chef Instructors. Satisfactory completion of CAP 295.

CULINARY ARTS PROGRAM ADVANCED

Executive Director of Development & Governmental Relations: John Walsh, JD
Director: Bruce Konowalow, MA
Instructors: Instructor Marcus Haight, CEC

- CAPA 200 Second Cook Station (3 - 6) 4 Cr. Hrs.**
Saucier Cook Element—Most accomplished Chefs world wide would agree that a complete understanding of the fundamentals of stock and sauce preparation is the foundation of good cooking. This class builds knowledge in this important area with strict guidelines of proper methods and function of top quality ingredients in a professional kitchen.
Saute Cook Element—In this course, students are introduced to the important elements of sauté cookery. An experienced instructor will cover time-honored techniques as well as contemporary approaches. Participants will have the opportunity to learn how to integrate their efforts with the various stations in a complete kitchen brigade. How to incorporate sautéed entrées with other menu selections for balance and production sense will be presented.
Prerequisite: Successful completion of a Culinary Arts associate degree. Completion of sanitation and nutrition courses or completion of American Culinary Federation approved seminars. GPA of 3.0 or higher. One year work experience in a quality operation or equivalent preferred.

- CAPA 201 Á La Carte Line (3 - 6) 4 Cr. Hrs.**
Fish Station Element—In a large Brigade, the Poissonier (Fish Chef) is responsible for the preparation of all fish dishes. This class is designed to teach the student cooking, plating and garnishing of fish, as well as seafood. Fresh fish, crustaceans, cephalopods, and shellfish will be utilized in the menu format to showcase these important nutritive elements of the menu. Students will have the opportunity to learn effective storage, rotation and utilization of fish products. Incorporating several cooking procedures directed by the menu and customer needs will ensure a well-rounded knowledge of the subject matter.
Hot Appetizer Station Element—Students will also have the opportunity to learn how to develop plated hot appetizers. Emphasis will be on utilization, fabrication of leftovers, trimmings, organ meats and ordinary food inventory items into menu items. Students will be presented contemporary and traditional approaches with emphasis on supporting the proper fundamentals of cooking. Balance, nutrition and harmony with the menu entrees will be important goals in this section.

Prerequisite: Successful completion of a Culinary Arts associate degree. Completion of sanitation and nutrition courses or completion of American Culinary Federation approved seminars. GPA of 3.0 or higher. One year work experience in a quality operation or equivalent preferred.



CAPA 202 Garde Manger (3 - 6) 4 Cr. Hrs.

Garde manger, the cold food storage place in classical kitchens is an important element of food service. Here the culinary artistry can really be showcased providing the student with presentation skill development, while honing craftsmanship. Cold soups, sauces, sandwiches, and salads will be covered. Handling and selection of ingredients will be covered. Traditional methods of garde manger with modern interpretation and plating methods will be presented. Hors d'oeuvres, canapés, and international specialties will be discussed and explored. Wholesome preparation and service of Charcuterie items will further enhance the student's learning.

Prerequisite: Successful completion of a Culinary Arts associate degree. Completion of sanitation and nutrition courses or completion of American Culinary Federation approved seminars. GPA of 3.0 or higher. One year work experience in a quality operation or equivalent preferred.

CAPA 203 Roast and Prep (3 - 6) 4 Cr. Hrs.

Roast Station Element—Historically, the roast station is one of the most important stations in the kitchen Brigade. Roasting, grilling, and broiling are learned here. The side dishes and salads that accompany roasted and grilled foods will be covered. Compound butters, glazes and essences will also be integrated with dishes served on this post. The braising of red meats and game (in season) will be part of the learning experience. Plating and presentation will be emphasized daily.

Butchery Station Element—A European style of butchery is taught to enhance the skill set of the culinary student. Ballontines, quenelles, croquets, warm forcemeats, and custom fillings are taught. Proper trimming and portioning are elements that will be emphasized. Product utilization will be accomplished through student participation in the chef's table daily staff meal. Inventory, storage and ordering of meat, fish, and game products will interface with the core program butchery standard.

Prerequisite: Successful completion of a Culinary Arts associate degree. Completion of sanitation and nutrition courses or completion of American Culinary Federation approved seminars. GPA of 3.0 or higher. One year work experience in a quality operation or equivalent preferred.

CAPA 204 Nutrition and Vegetable Cooking (3 - 6) 4 Cr. Hrs.

Nutrition Element—This section will cover practical nutritional approaches in the professional kitchen. Interfaced with other stations, the student will compose vegetarian entrée's and a daily prix fix "Garden Menu". The nutrition station will be responsible for special dietary requests. Students will work with a state of the art computerized nutrition program to provide printed analysis of the Garden Menu. Strict portion control methods will be learned with menu composition for a healthy, common sense approach to diet.

Entremetier Element—Students will prepare grains, pasta, risotto, starches, legumes and vegetable dishes. Fried foods, potato compositions, tempura dishes and warm cheese entrees will be experienced as part of the menu system. Entrée's side dishes and nutritional elements of healthy cooking will be reinforced. This specialized area of study will be extremely useful to any serious culinary student. A la minute and batch cookery will be learned.

Prerequisite: Successful completion of a Culinary Arts associate degree. Completion of sanitation and nutrition courses or completion of American Culinary Federation approved seminars. GPA of 3.0 or higher. One year work experience in a quality operation or equivalent preferred.

CAPA 205 Hot Line Support (3 - 6) 4 Cr. Hrs.

Apprenticeship Cook Element—Apprenticeship principles of the European Kitchen will model the assignments. Although a true apprenticeship would last for years, the concept of the apprentice functioning as a support mechanism will be presented. Students in this section will reinforce skill-based learning such as vegetable cutting, stock making and storage of food items. The apprentice will work under the Sous-chef's direction for daily assignments. The apprentice will log all the necessary skill documentation, as well as present the products to the chef instructor for direction and assessment.

Kitchen Steward Element—This class is designed to give the student an understanding and appreciation for this key function in a large operation. Students will participate as kitchen steward, filling requisitions, organizing equipment for special events, à la carte and buffet receptions. Storage and handling of china, glassware and silver will be covered. Distribution and delivery of finished food and beverage products will be covered.

Prerequisite: Successful completion of a Culinary Arts associate degree. Completion of sanitation and nutrition courses or completion of American Culinary Federation approved seminars. GPA of 3.0 or higher. One year work experience in a quality operation or equivalent preferred.

CAPA 206 Baking and Pastry (3 - 6) 4 Cr. Hrs.

Baking Element—Students have the opportunity to learn the importance of utilizing freshly baked breads and savories in a restaurant operation. Artisan breads, natural sours, and flavored baked goods will be presented. The participant will make barquettes, crackers, and flatbreads. Uses and applications of baked goods will be covered in a "hands-on" realistic format.

Pantry Station Element—Although many food operations have different structures as it relates to cold food production, the larger operations specialize tasks in great detail. Pantry class will direct the students learning to the handling, preparation, and service of fruits, cheeses, and some beverages and condiments. Stewardship and support to the dining room will also be emphasized here. Simple salads, vinaigrettes, and dressings will be used.

Prerequisite: Successful completion of a Culinary Arts associate degree. Completion of sanitation and nutrition courses or completion of American Culinary Federation approved seminars. GPA of 3.0 or higher. One year work experience in a quality operation or equivalent preferred.

CAPA 207 Restaurant Desserts (3 - 6) 4 Cr. Hrs.

The restaurant pastry class is designed to teach the student everyday applications of artistic plated desserts, specialty desserts and nutritional options. Hot and cold kitchen desserts will be taught. A la minute and batch cookery will define varied approaches to production balance. Quick sabyons, souffles and fresh fruit compositions will enhance the culinarians skill repertoire. Multi-use applications for sorbet and ice cream offerings will be explored in the format of par-faits, coupes, and frozen desserts.

Prerequisite: Successful completion of a Culinary Arts associate degree. Completion of sanitation and nutrition courses or completion of American Culinary Federation approved seminars. GPA of 3.0 or higher. One year work experience in a quality operation or equivalent preferred.

CAPA 208 Entrepreneur (3 - 6) 4 Cr. Hrs.

Student will have the opportunity to learn what is necessary to open a restaurant. Experiencing community and business sectors, students will be presented with what it takes to secure necessary licenses, approval, and how to meet health and building codes. The participant will work on-site in a hotel, club, or restaurant, which is currently in operation as a business. A business plan outline will be followed with a completed student plan outline as a key outcome.

Prerequisite: Successful completion of a Culinary Arts associate degree. Completion of sanitation and nutrition courses or completion of American Culinary Federation approved seminars. GPA of 3.0 or higher. One year work experience in a quality operation or equivalent preferred.

CULINARY BAKING AND PASTRY ARTS

Executive Director of Development & Governmental Relations: John Walsh, JD
Director: Bruce Konowalow, MA
Instructors: Professor Joseph Decker, CMPC

CBPA 090 Introduction to Baking and Pastry Skills and Techniques (1 - 0) 1 Cr. Hr.

This course will provide a broad orientation to aspiring bakers and pastry chefs in order to offer better understanding of the specialized fields of baking and pastry. Discussions will include professionalism, safety and sanitation, equipment identification, function and maintenance. The fundamental baking processes, handling and function of ingredients will be covered. Students will be required to purchase uniforms, as well as specific tools for skill development.

Prerequisite: None.

CBPA 125 Pastries (5 - 15) 20 Cr. Hrs.

Students upon successful completion of this course will have acquired professional skills in the art of pastry including recipe expansion and costing, use of hand tools and equipment, safety, sanitation and organization skills. Products introduced to the aspiring students include pies and tarts; french pastry; individual pastries; classical and contemporary tortes; warm, cold and frozen desserts; contemporary plated desserts; miniature pastries; chocolates; cake decoration; and decorative centerpieces.

Prerequisite: CBPA 090.

CBPA 144 Baking (3.75 - 11.25) 15 Cr. Hrs.

Upon successful completion of this course, students will have acquired professional skills in the art of baking. This course will cover basic elements including: costing out recipes, expanding and reducing recipe sizes, proper usage of bakery equipment, using straight dough methods to produce French Baguettes, soft and hard rolls, pan breads and many hearth breads, producing various cookies, quick breads, muffins and biscuits. Advanced techniques including: fermentation processes and how they contribute to flavor; mixing methods, understanding the functionality of ingredients, study of various flours, chemical reactions that take place while baking, artisan breads, laminated doughs, savory baked goods, specialty baked goods, breakfast pastries, high ratio cakes and decorative centerpieces will be an important aspect of this course.

Prerequisite: CBPA 090.

CULINARY MANAGEMENT

Executive Director of Development & Governmental Relations: John Walsh, JD
Director: Bruce Konowalow, MA
Instructors: Adjunct Faculty

CM 107 Culinary Management—Food and Culture (3 - 0) 3 Cr. Hrs.

A cross cultural, interdisciplinary investigation into the relationships between the foods humans prepare and consume and the cultures they build. The course will demonstrate the ways intellectual, social, religious and political events affect the preparation of food in various civilizations and at various periods in human history.

Prerequisite: None.

CM 108 Introduction to Hotel/Hospitality Management (2 - 0) 2 Cr. Hrs.

An introductory course that allows students to investigate hotel operations, systems, and management procedures. Students will explore the differences between classes of hotels and hospitality venues by seeking the manner in which the industry markets to specific guest demographics. Industry professionals will share their real-life expertise. Students with an interest in restaurant and hospitality management will gain a greater understanding of the nations largest industry.

Prerequisite: None.

CM 109 Hospitality Law (3 - 0) 3 Cr. Hrs.

An overview of the general concepts of law as it relates to hospitality industry. Contract, property, employee, guest, insurance, food and beverage responsibility, and business operating structure issues will be covered. The emphasis will be on restaurant law, but applicability to other aspects of hospitality law, such as catering and hotel management will be explored.

Prerequisite: None.

CM 203 Restaurant Concepts & Design (3 - 0) 3 Cr. Hrs.

This course will explore new concepts for the entrepreneur in the restaurant industry. It will emphasize the new trends and restaurant decor, along with facility layout and design.

Prerequisite: Completion of two-year CAP.

CM 210 Wine & Spirits (3 - 0) 3 Cr. Hrs.

Comprehensive, detailed information about the origins, production and characteristics of all types of alcoholic beverages: Wines from all over the world, beers, ales and distilled spirits, including brandies and liqueurs. Attention is given to table, sparkling and dessert wines. The student will gain understanding of purchasing and storing wines, retail merchandising, bar operation and beverage management. Understanding of wine and spirit laws. This is an elective course.

Prerequisite: None.

CM 211 Culinary Marketing for the Restaurant Industry (3 - 0) 3 Cr. Hrs.

Overview of the general concepts of marketing and its relation to the restaurant business. The students will learn about product merchandising, promotion and customer satisfaction. They will explore the different styles of advertising and how to measure their effectiveness.

Prerequisite: Completion of two-year CAP.

CM 213 Culinary Management for Restaurant Operations (3 - 0) 3 Cr. Hrs.

Learn practical applications of restaurant management principles. This course will explore various management styles, focus on the use of financial statements as a management tool, review cost controls and explore techniques in personnel management. In addition, planning and organization skills will be discussed.

Prerequisite: Completion of two-year CAP.

CM 222 Management Accounting in the Restaurant Industry (4 - 0) 4 Cr. Hrs.

Students will learn accounting concepts that match the skills required to manage a restaurant. There will be a review of the preparation of basic accounting statements, including income statements, balance sheets and statements of cash flow. Other concepts discussed include forecasting, break-even analysis and taxes. Students will use computer software applications.

Prerequisite: Completion of two-year CAP.

**DESIGN**

Associate Dean: Bruce Sweet, MA
Instructors: Associate Professor Catherine Ferman, MS
Adjunct Faculty

DSGN 113 Industrial Schematics with Animation (2 - 2) 3 Cr. Hrs.

This course introduces the student to Automation Studio software which designs, tests, animates, and simulates automation industrial control systems. Controlling circuitry will use hydraulic, pneumatic, electrical and programmable logic controller's icons to simulate computer aided printout schematics. The software allows the student to print and export their diagrams, determine cost of components, and bill of materials. This is a new dimension of training in visualizing virtual operation of how hydraulic and pneumatic components work, how they are controlled, and the ease in designing schematics and component sizing.

Prerequisite: CIS 170 or equivalent computer experience.

DSGN 180 Machine Elements and Design (3 - 2) 4 Cr. Hrs.

This course is designed to introduce the student to the various machine elements and the mechanical/working relationship between elements that make up a mechanism. The machine element concepts covered include fasteners, gears, cams, linkages, and bearings. The introduction to the design process includes problem definition, needs analysis, design performance objectives, cost analysis, design alternatives, feasibility analysis and design selection.

Prerequisite: CAD 107 or equivalent and MATH 113.

DSGN 200 Geometric Dimensioning and Tolerancing (2 - 0) 2 Cr. Hrs.

This course provides application of principles in geometric dimensioning and tolerancing. Fundamentals including concepts of maximum material condition, virtual size, geometric symbols and their interpretation, with analysis of mating parts are fully described. Course is based on American Society for Manufacturing Engineers Y14.5M-1994 standards.

Prerequisite: DRFG 102, equivalent work experience or consent of department.

DSGN 240 Tool and Die Design (2 - 4) 4 Cr. Hrs.

This course covers the development of press working tools such as cutting dies, piercing dies, forming dies and drawing dies. From the scrap strip to the assembly drawing, the designing procedure is analyzed. Sketching and AutoCAD will be used to develop and draw the designs.

Prerequisite: CAD 107 or equivalent and MATH 113.

Corequisite: DSGN 180 or equivalent.

DSGN 260 Jig and Fixture Design (2 - 4) 4 Cr. Hrs.

This course covers the development of work holding and tool guiding devices used in manufacturing. Emphasis is placed on the types of tools, supporting and locating principles, clamping methods, construction methods, initial design procedure and working drawing requirements. Design projects are used to reinforce theory and to provide an opportunity to gain practical experience. Sketching and CAD will be used to develop, create and detail designs and assemblies. ANSI/ASME Standards will be followed.

Prerequisite: CAD 107 or equivalent and MATH 113.

Corequisite: DSGN 180 or equivalent.

DRAFTING AND DESIGN

Associate Dean: Bruce Sweet, MA
Instructors: Professor Gerald Cavanaugh, MA
Adjunct Faculty

- DRFG 102 Machine Trades Print Reading (2 - 0) 2 Cr. Hrs.**
This course develops a person's ability to interpret manufacturing prints. Topics covered include: third angle projection, type of lines, dimensions, sloping surfaces and angles, tolerances and allowances, thread representation, types of sections, specifications and stock lists, auxiliary views, assembly drawings and details.
Prerequisite: WELD 108 or equivalent.
- DRFG 106 Fundamentals of Drafting (2 - 0) 2 Cr. Hrs.**
This course introduces the use of lettering, freehand sketching, and technique in drawing with various line conventions. Students learn the proper usage of drawing instruments in mechanical drawing, geometric construction, laying out of orthographic projection, dimensioning of common three views. Shop drawings, sectioning, reference line projection are included as is an introduction to ANSI drafting standards.
Prerequisite: None.
- DRFG 114 Descriptive Geometry (2 - 2) 3 Cr. Hrs.**
Graphic representation and solution of space problems, basic and advanced orthographic projection, points, lines, planes, solids, auxiliary views, parallelism, perpendicularity, developments and intersections.
Prerequisite: CAD 103 or consent of department.

ECONOMICS

Associate Dean: Bruce Sweet, MA
Instructors: Professor Frederick Galperin, EdS
Professor Cedric Howie, MS
Professor Prantosh Nag, PhD

- ECON 103 Introductory Economics (3 - 0) 3 Cr. Hrs.**
A survey of the macroeconomic concerns of national income determinations, business cycles, unemployment, inflation and both fiscal and monetary policies to stabilize the aggregate economy. A survey of the microeconomic fundamentals of demand, supply, elasticity, consumer choice, the production costs of output and resource allocation of firms operating under various market structures, and the international economy.
Prerequisite: None.
- ECON 201 Principles of Economics (4 - 0) 4 Cr. Hrs.**
An introduction to the theory of demand and supply models, income determination, business cycles, national income analysis and economic growth. The role of the labor and capital markets in economic activity will be examined to explore the problems of unemployment and inflation. The functioning and impact of the monetary system will be introduced. Government stabilization activity utilizing monetary and fiscal policies will be explored. The mechanics of international goods transactions and the balance of trade will be examined as they influence the domestic economy.
Prerequisite: MATH 053 or equivalent.
- ECON 202 Principles of Economics (4 - 0) 4 Cr. Hrs.**
An introduction to the theory of consumer behavior, production theory, market structure in product and resource/factor markets, and microeconomic policy.
Prerequisite: MATH 053 or equivalent.

ELECTRICITY, ELECTRONICS, ELECTROMECHANICS

Associate Dean: Bruce Sweet, MA
Instructors: Professor Ronald McBride, MA
Professor William Schlick, BEE
Adjunct Faculty

- ELECT 119 Basic Measurement and Reporting Skills (3 - 0) 3 Cr. Hrs.**
This course is designed for students who are pursuing a career in electronics or electronic related fields. The student will receive instruction on how to conduct career research and in the proper use of basic measuring instruments, such as the Digital Multimeter (DMM), the Volt-Ohm-Meter (VOM), the sine wave generator and the oscilloscope. In the electronics laboratory, the student will make measurements, record data, maintain a log book and develop conclusions based on the results. In the computer laboratory, students will learn how to organize and report their findings utilizing word processing, spreadsheet, and presentation software.
Prerequisite and/or Corequisite: ELECT 127.
- ELECT 125 Electrical, Electronics Experience 1 (0 - 40) 3 Cr. Hrs.**
This is the first cooperative industrial assignment for a student who has successfully completed 26 credit hours of the program. Employment will be full time outside the college in a meaningful technical capacity with duties approximating those of a beginning technician. The assignment will be made upon consent of the student and mutual approval of both the department and the coordinator. The employer must agree to a rotation policy in which the student is able to alternate college and work every four months. Both the College and the employer will jointly evaluate the student. Evaluation will serve as basis for grade in the course.
Prerequisite: Consent of department.
- ELECT 127 DC Circuits and Mathematical Modeling (5 - 0) 5 Cr. Hrs.**
This course is the study of basic DC fundamentals and mathematical modeling for the electronics careers which includes: Ohm's law, Power law, and Kirchhoff's laws with application to solving series, parallel, and series-parallel combination circuits. Other topics will include resistors, color code, magnetism, electromagnetism, and test equipment. The mathematics skills needed for an electronics career will also be covered in this course. The student will be prepared to enter the second semester course of ELECT 128 AC Circuits and Mathematical Modeling. Laboratory experiments and projects are utilized to teach the use of test equipment and to demonstrate the principals taught in lecture. Computer assignments are incorporated to enhance learning and to familiarize students with instructional and simulation software.
Prerequisite: High school algebra 1 or Corequisite of COLLS 101.
- ELECT 128 AC Circuits and Mathematical Modeling (5 - 0) 5 Cr. Hrs.**
This course is designed to explore the theory and application of AC fundamentals. Sine wave generation and analysis will be studied. The theory of Kirchhoff's laws will be used to solve AC series, parallel and series-parallel circuits using the method of phasors. Other topics covered include: capacitors, inductors, transformers, resonance, passive filters, RC and RL circuits. Laboratory experiments are used to teach the use of common test equipment and to demonstrate the principals taught in lecture. PC's with Electronic Workbench will be used in laboratory experiments for modeling, simulations, and troubleshooting.
Prerequisite: ELECT 127.
Corequisite: ELECT 129.

- ELECT 129 Diodes and Transistors (3 - 0) 3 Cr. Hrs.**
This course will introduce the students to various semiconductor devices starting with a discussion of internal construction, followed by circuit configurations, applications, and troubleshooting techniques. Diodes will be discussed first and will include signal, rectifier, Zener, and light emitting types. Transistor material will cover NPN and PNP bipolar types, J type FETs, enhancement and depletion MOSFETs. Finally, transistor switching circuits will be examined.
Prerequisite: ELECT 127.
Corequisite: ELECT 128.
- ELECT 134 Introduction to Microcontrollers (3 - 0) 3 Cr. Hrs.**
This course will introduce the student to the concepts of microcontroller architecture, block components, numbering systems and PBASIC2. Representative microcontroller commands and elementary programming of the Parallax BASIC STAMP will be studied. Students will work with hands-on experiments which they will learn to expand and customize for their personal needs.
Prerequisite: COMPS 126.
- ELECT 135 Fluid Power (4 - 0) 4 Cr. Hrs.**
This course emphasizes the understanding of fundamentals of hydraulics and pneumatics. In this course students will design, analyze, operate, and maintain fluid power systems. Emphasis is placed on understanding the physics of fluids and how energy, power, and force affect the devices that make up a hydraulic and pneumatic system.
Prerequisite: MATH 053 or equivalent.
- ELECT 200 Electrical, Electronics Experience 2 (0 - 40) 3 Cr. Hrs.**
This is a cooperative industrial assignment for students who are continuing work-study programs on a rotational basis. The conditions for assignment and evaluation and the employer's responsibilities are the same as for ELECT 125—Electrical, Electronics Experience 1. Students are expected to handle technical responsibility and perform tasks like the operation of complicated equipment, taking and presenting data, repair of equipment, assembly and construction of experimental models, electrical drafting, and writing specifications.
Prerequisite: ELECT 125 and ELECT 226.
- ELECT 204 Microcomputer Interface (2 - 3) 3 Cr. Hrs.**
This course will introduce the student to various microcomputer interfaces by having the student develop programs and verify their operation with the actual interface hardware.
Prerequisite: ELECT 134 completed within the past year, ELECT 226 and ELECT 206.
- ELECT 206 Operational Amplifiers and Linear Integrated Circuits (4 - 0) 4 Cr. Hrs.**
This course will introduce the student to operational amplifiers (op-amp) and linear integrated circuits. Op-amp circuit configurations, applications, and troubleshooting techniques will be presented. Operational amplifiers will be presented with emphasis on applications and circuits such as inverting and non-inverting amplifiers, integrators, differentiators and filters. The coverage of linear integrated circuits includes voltage comparators, timers, oscillators, voltage regulators special purpose amplifiers, communications circuits and data conversion circuits.
Prerequisite: ELECT 129.
- ELECT 225 Electrical, Electronics Experience 3 (0 - 40) 3 Cr. Hrs.**
This is a cooperative industrial assignment for a student who has been employed at least eight months as a cooperative student. The conditions for assignment and evaluation and the employer's responsibilities are the same as for ELECT 125—Electrical, Electronics Experience 1. In this capacity the student can be expected to assume technical responsibility at the level of a technician with six months experience.
Prerequisite: ELECT 200.
- ELECT 226 Digital Logic Circuits (4 - 0) 4 Cr. Hrs.**
This course acquaints students with Boolean algebra (emphasizing NAND and NOR) and various medium scale integrated circuits like exclusive or encoders, decoders, multiplexors, adders, counters, and shift registers. Also included are memory (core, RAM and ROM) and bidirectional line drivers. The laboratory work coincides with classroom lecture material utilizing integrated circuits almost exclusively.
Corequisite: ELECT 129.
- ELECT 229 Electronics Troubleshooting (3 - 0) 3 Cr. Hrs.**
This course covers the technique of troubleshooting along with the application of basic instrumentation used in the process. Laboratory work will offer opportunity for actual troubleshooting experience. This experience will include both reporting failure data and description of parts to be ordered.
Prerequisite: ELECT 206 and ELECT 226.
- ELECT 237 Programmable Logic and Industrial Controls (4 - 0) 4 Cr. Hrs.**
This course will use Programmable Logic Controller (PLC) and Allen-Bradley RSLogix software to convert typical hardwired electrically controlled circuitry used in industry to computer-controlled system. Emphasis will be placed on understanding the purpose and operating features of a PLC including input/output addressing and associated commands used in the PLC program. A computer will be used to write and download a program to be tested for logical control. The student will use Linx software and networking to learn communication procedure for downloading a PLC program to the controller as well as the types of cable connections used. PanelView will be reviewed to understand its real time monitoring capability of the software. Various PLC commands will be used including internal relays, ON and OFF timers, UP and DOWN counters, subroutines, program control and math instructions.
Prerequisite: CIS 170 or equivalent computer experience.
- ELECT 239 Programmable Logic System Design (4 - 0) 4 Cr. Hrs.**
The student will use Allen-Bradley RSLogix 500 software to be interfaced with RSLinx communication software, and PanelView for control panel applications. Data Highway Plus will be used for network communications with other Programmable Logic Controllers (PLC) components. Emphasis will place on incorporating and combining programming commands, timers, counters, subroutines, data manipulation, and mathematics into control process systems. Installing, wiring, and networking PLC systems will be covered. Students will learn how to use troubleshooting features of the PLC software to find and diagnosis hardware, configuration, and programming problems.
Prerequisite: ELECT 237 or equivalent PLC experience.

ELECT 240 Electronic Data Communication (3 - 2) 4 Cr. Hrs.

The student will first study the basics of communications which include AM, FM and PM (modulation), receivers and transmitters, antennas and transmission lines. Then the data communication concepts will be covered, starting with the telephone line equipment, MODEMS and RS standards, and finally fiber communication links.

Prerequisite: ELECT 226 and ELECT 206.

ELECT 241 Electronics Projects (3 - 0) 3 Cr. Hrs.

Advanced use of electronics and a microcomputer to design, build and operate a real-time system. The student will apply the concepts learned in prior electronics classes involving digital and analog signal processing (hardware) with the concepts learned in prior programming classes (software) in order to control real world devices using a microcomputer. The student will design and build the hardware interfacing needed to accomplish the goal of data acquisition. The student will design and program the necessary software to control the hardware, as well as process and display data on a microcomputer. The final project will permit the student to create a system which involves data acquisition, hardware control and data processing to produce an intelligent system.

Prerequisite: ELECT 229 or equivalent.

ELECT 250 Individual Student Project (3 - 0) 3 Cr. Hrs.

Students will plan, organize, assemble or fabricate and test the project of their choice or one suggested by instructor. Under guidance of the instructor, the electronic laboratory will be made available three hours a week in which time the student may perform tests.

Prerequisite: By midterm of the previous semester, the student submits a written proposal for approval by department.



EMERGENCY MEDICAL TECHNOLOGY

Associate Dean: Robert F. Pearce, MPA
 Program Coordinator: Thomas Ayers, P I/C
 Instructors: Adjunct Faculty

EMT 107 Emergency Medical Technology—Basic (8.5 - 4) 10.5 Cr. Hrs.

The Basic Emergency Medical Technician course is a Michigan Department of Labor and Economic Growth approved course that provides the information and experience necessary to prepare the student to take the State of Michigan Basic EMT licensing examination. Students learn the role and responsibilities of an emergency medical technician in providing emergency care. Content areas are covered in lectures, practical skills practiced in a laboratory, and observations and applications experienced in a clinical setting.

Prerequisite: None.

EMT 113 Emergency Medical Technology—Specialist (3 - 4) 5 Cr. Hrs.

Emergency Medical Technology-Specialist is a Department of Consumer and Industry Services Licensing Division Bureau of Health Services, Division-approved course that provides the information and experience necessary to prepare the student to take the State of Michigan EMT Specialist licensing examination. All procedures for the course are evaluated by a physician advisor. This course is designed to teach students how to deal with more complex medical emergency situations than are handled in the basic EMT course (EMT 107). Students develop advanced skills in diagnosis and emergency treatment short of those rendered by physicians or by allied health personnel under the direct supervision of the physician.

Prerequisite: EMT 107.

EMT 156 Paramedic Technology 1 (14 - 4) 16 Cr. Hrs.

This 15-week course provides the information and experience necessary to prepare the student for EMT 157 and to take the National Registry of Emergency Medical Technician-Paramedic licensing examination, following the completion of EMT 158. EMT 156 is designed to give students extensive practical application of the knowledge and skills acquired in EMT 107 and/or EMT 113 in complex medical situations. The course focuses on state-of-the-art medical technologies and medical emergency management.

Prerequisite: EMT 107.

EMT 157 Paramedic Technology 2 (9 - 3 - 18) 12 Cr. Hrs.

This 15-week course provides the information and experience necessary to prepare the student for EMT 158 and to take the National Registry of Emergency Medical Technician-Paramedic licensing examination for State and National certification as an Emergency Medical Technician-Paramedic, following the completion of EMT 158. EMT 157 is designed to give students extensive practical application of the knowledge and skills acquired in EMT 107 and EMT 156 in complex medical situations. The course focuses on state-of-the-art medical technologies and medical emergency management. Students apply their skills in both hospital emergency rooms and ambulances under the guidance of professionals.

Prerequisite: EMT 156.

- EMT 158 Internship Experience (2 - 3 - 11) 5 Cr. Hrs.**
This 12-week course provides the field experience necessary to prepare the student to function as an entry-level paramedic, and to take the National Registry of Emergency Medical Technician-Paramedic licensing examination for State and National certification as an Emergency Medical Technician-paramedic. EMT 158 is designed to give students extensive practical application in complex medical situations. The course focuses on state-of-the-art medical technologies and medical emergency management. Students apply their skills under the guidance of professionals in their ambulance internship.
Prerequisite: EMT 157.

ENGINEERING

Associate Dean: Bruce Sweet, MA
Instructors: Assistant Professor Lisa Zaccone, BS
Adjunct Faculty

- ENGR 100 Introduction to Engineering and Technology (3 - 0) 3 Cr. Hrs.**
This course is designed to introduce students to the fields of engineering and engineering technology. Students will learn about the different engineering disciplines, and will participate in projects related to engineering. Electronic portfolios will be introduced in this course.
Prerequisite: None.
- ENGR 201 Statics (3 - 0) 3 Cr. Hrs.**
This course is designed to teach the student vector analysis of forces and moments in 2 and 3 dimensions. Equilibrium of particles and rigid bodies will be determined. Beams and trusses will be analyzed. Problems involving friction, center of gravity, moments of inertia and virtual work will be solved. This course is designed as an engineering transfer course. Transferability of this course into the desired engineering program should be confirmed with the transfer office.
Prerequisite: PHYS 211.
- ENGR 202 Mechanics of Materials (3 - 0) 3 Cr. Hrs.**
This course is designed to teach the students the fundamental concepts related to stress and strain of deformable bodies and their application to mechanical structures. This course is designed as an engineering transfer course. Transferability of this course into the desired engineering program should be confirmed with the transfer office.
Prerequisite: ENGR 201.
- ENGR 203 Dynamics (4 - 0) 4 Cr. Hrs.**
This course is designed to teach the student kinematics and kinetics of particles and rigid bodies including methods of; motion relative to translating and rotating reference frames; force and acceleration; work and energy; impulse and momentum; and vibrations. This course is designed as an engineering transfer course. Transferability of this course into the desired engineering program should be confirmed with the transfer office.
Prerequisite: ENGR 201.

ENGLISH

Interim Assistant Dean: Cheryl D. Hawkins, MS
Instructors: Professor Sumita Chaudhery, PhD
Professor Steven Dolgin, DA
Professor Richard Gordon, MA
Professor Mark Harris, MA
Professor John Nathan, PhD
Professor Mary Powell, MA
Professor Gordon Wilson, MA
Associate Professor Omar Addi, MA
Associate Professor Mary Alice Palm, MA
Associate Professor Faye Schuett, PhD
Associate Professor Ida Simmons-Short, MA
Assistant Professor Steven Berg, PhD
Assistant Archana Maheshwari, MA
Adjunct Faculty

ENGLISH GENERAL NOTE- Word Processing skills will assist students in the preparation of writing assignments.

- ENG 050 Modern English Grammar (3 - 0) 3 Cr. Hrs.**
This is the first of a two-part course (ENG 050/055) designed to prepare students for composition courses. The content focuses on major grammatical concepts: parts of speech, sentence functions, sentence patterns, clauses, sentences with multiple clauses and punctuation. A grade of 2.0 or better in ENG 050 is necessary to enter ENG 055.
Prerequisite: None.
- ENG 052 English Grammar for Second Language Students (3 - 0) 3 Cr. Hrs.**
An English course designed to aid the foreign student in developing skills in written communication. It is specifically for nonnative writers who have difficulty with English composition.
Prerequisite: None.
- ENG 055 Building Writing Skills (3 - 0) 3 Cr. Hrs.**
This is the second of a two-part course (ENG 050/055 or ENG 052/055) designed to prepare students for composition courses. The major goals are mastering basic paragraph structure and writing clear, efficient sentences. In connection with paragraph structure, students will study topic sentences, ways to improve paragraph content, and strategies for organizing paragraphs. In studying sentences, students will work on better word choices, spelling, and sentence patterns. Accurate spelling and appropriate grammatical concepts will be emphasized. A grade of 2.0 or better in ENG 055 is necessary to enter ENG 101.
Prerequisite: Satisfactory placement test score or minimum grade 2.0 in ENG 050 or ENG 052.
- ENG 100 Communication Skills (3 - 0) 3 Cr. Hrs.**
In addition to basic writing skills related to general communication and to specific work experience, this course may include the study of advertising, general semantics, oral communications, visual presentation, interviews, and the influence of modern technology in various career areas. Each student will be expected to do a number of writing, reading and speaking assignments. (ENG 100 is not intended as a prerequisite or a substitute for English 101 or any other English course.)
Prerequisite: None.
- ENG 101 English Composition (3 - 0) 3 Cr. Hrs.**
This course teaches students to prepare and write a number of clear, well-developed essays, using exposition and other rhetorical modes. Students submit essays which the instructor reads, evaluates and returns. This process assists students to build on strengths and eliminate weaknesses.
Prerequisite: Satisfactory high school English background or ENG 055 with a minimum grade of 2.0.

- ENG 102 English Composition (3 - 0) 3 Cr. Hrs.**
Continuation of ENG 101. Includes practice in preparation and writing of a research paper.
Prerequisite: ENG 101 with a minimum grade of 2.0.
- ENG 106 Business English (3 - 0) 3 Cr. Hrs.**
Business English deals with a variety of written communications relating to business. In addition to a study of the psychology and planning of business documents, specific types of letters, reports and memos will be prepared and written. Methods of collecting, preparing and presenting data will also be studied.
Prerequisite: ENG 101, OIS 100 with a minimum grade of 2.0.
- ENG 107 Introduction to Journalism (3 - 0) 3 Cr. Hrs.**
Introductory survey in mass media—newspaper, magazines (consumer and small), radio, TV, advertising, and public relations; emphasis on newspapers and magazines—recognizing news and feature values, discovering audience, reporting, writing, planning content and format.
Prerequisite: ENG 101 required; ENG 102 recommended.
Minimum grade of 2.0 or consent of instructor.
- ENG 116 Technical Writing (3 - 0) 3 Cr. Hrs.**
Provides practical instruction in speaking, listening, and writing for business and industry. Focuses on writing memorandums and a variety of business letters. Gives detailed instruction for job hunting, resume writing, and successful participation in job interviews. Covers the entire writing procedure from single sentences of facts, inferences, and opinions to different types of supporting paragraph development and their inclusion in some of the more common short technical reports. Practical tips are given related to procedures for conducting reliable research in qualified technical sources, gathering and organizing findings, arriving at logical conclusions, and submitting sound recommendations. Gives specific instruction and practice in preparing tables, charts, graphs, drawings, and photographs that are usually used in technical communication.
Prerequisite: ENG 100, ENG 101 with a minimum grade of 2.0.
- ENG 200 Introduction to Film (4 - 0) 4 Cr. Hrs.**
The study of film in terms of how it accomplishes what it does, whether as simple entertainment, social comment or complex art. A look at the history, criticism, aesthetics and technique of film. Emphasis on viewing and discussing selected films.
Prerequisite: ENG 101 required; ENG 102 recommended.
Minimum grade of 2.0 or consent of instructor.
- ENG 203 Children's Literature (3 - 0) 3 Cr. Hrs.**
Survey of literature for children of elementary school age. Through reading, observation and research the student is able to establish standards of critical evaluation.
Prerequisite: ENG 101 required; ENG 102 recommended.
Minimum grade of 2.0 or consent of instructor.
- ENG 205 Creative Writing (3 - 0) 3 Cr. Hrs.**
Student creative writing may include work in poetry, short stories and drama. Some assignments will reflect student interests and abilities, while others may encourage students to expand their skills and discover new topics. Class activities will include critical evaluation of student work in individual conferences and writing workshops.
Prerequisite: ENG 101 required; ENG 102 recommended.
Minimum grade of 2.0 or consent of instructor.
- ENG 206 Creative Writing (3 - 0) 3 Cr. Hrs.**
Student creative writing may include work in poetry, short stories and drama. Some assignments will reflect student interests and abilities, while others may encourage students to expand their skills and discover new topics. Class activities will include critical evaluation of student work in individual conferences and writing workshops. The course may include work on individual writing projects.
Prerequisite: ENG 101 required; ENG 102 recommended.
Minimum grade of 2.0 or consent of instructor.
- ENG 221 Advanced Composition (3 - 0) 3 Cr. Hrs.**
This course provides theory and practice for students to develop their writing skills beyond what they can accomplish in English 101 and English 102. The course will emphasize a writing process approach, a variety of revision strategies, and standard research techniques.
Prerequisite: ENG 101 required; ENG 102 recommended.
Minimum grade of 2.0 or consent of instructor.
- ENG 222 Tutoring English Composition (3 - 0) 3 Cr. Hrs.**
This course trains students to be effective peer tutors of English composition by giving them a background in writing/tutoring theory combined with practical application of what they learned. A significant component of the course is a practicum in the Learning Assistance Center where students will spend time working as tutors.
Prerequisite: ENG 101 with a 3.5 or ENG 102 with a 3.0 and consent of instructor.
- ENG 243 Introduction to Literature—Short Fiction (3 - 0) 3 Cr. Hrs.**
Reading and discussion of short fiction, especially fiction written since 1850. Designed to develop standards for critical evaluation and to increase understanding and appreciation of prose fiction.
Prerequisite: ENG 101 required; ENG 102 recommended.
Minimum grade of 2.0 or consent of instructor.
- ENG 244 Introduction to Literature—Poetry (3 - 0) 3 Cr. Hrs.**
Reading and discussion of poetry, especially that written since 1850. Designed to develop standards for critical evaluation and to increase appreciation for poetry.
Prerequisite: ENG 101 required; ENG 102 recommended.
Minimum grade of 2.0 or consent of instructor.
- ENG 245 Introduction to Literature—Drama (3 - 0) 3 Cr. Hrs.**
Reading and discussion of a number of plays, especially those written since 1850. Designed to develop standards for critical evaluation and increase understanding and appreciation of drama as a literary form.
Prerequisite: ENG 101 required; ENG 102 recommended.
Minimum grade of 2.0 or consent of instructor.
- ENG 246 Introduction to Literature—Novel (3 - 0) 3 Cr. Hrs.**
Reading and discussion of novels, especially those written since 1850. Designed to develop standards for critical evaluation and to increase understanding and appreciation of prose fiction.
Prerequisite: ENG 101 required; ENG 102 recommended.
Minimum grade of 2.0 or consent of instructor.
- ENG 248 Introduction to Literature—Shakespeare (3 - 0) 3 Cr. Hrs.**
Reading and discussion of selected Shakespearean works. Designed to develop standards for evaluation and increased understanding of one of Western Civilization's greatest playwrights.
Prerequisite: ENG 101 required; ENG 102 recommended.
Minimum grade of 2.0 or consent of instructor.

- ENG 251 American Literature from Colonial Times to the Civil War (3 - 0) 3 Cr. Hrs.**
This course examines significant literary works that best illustrate the changing currents of thought and expression that dominated American life from colonial times to the Civil War.
Prerequisite: ENG 101 required; ENG 102 recommended.
Minimum grade of 2.0 or consent of instructor.
- ENG 252 American Literature from the Late Nineteenth Century to the Present (3 - 0) 3 Cr. Hrs.**
Continuation of ENG 251. Significant literary works that best illustrate the changing currents of thought and expression that have dominated American life from the Civil War to the present.
Prerequisite: ENG 101 required; ENG 102 recommended.
Minimum grade of 2.0 or consent of instructor.
- ENG 280 The Nature of Language (3 - 0) 3 Cr. Hrs.**
An investigation of the historical background and current status of the English language, including problems such as the changing nature of language dialect differences, origins of standards for “correctness” and attempts to describe the language grammatically.
Prerequisite: ENG 101 required; ENG 102 recommended.
Minimum grade of 2.0 or consent of instructor.

ENGLISH AS A SECOND LANGUAGE

Interim Assistant Dean: Cheryl D. Hawkins, MS
Instructors: Adjunct Faculty

- ESL 050 Communication and Cultural Skills (4 - 0) 4 Cr. Hrs.**
This course enhances speaking and conversation skills through situational activities. It emphasizes effective language strategies necessary to express and organize ideas in academic settings. Instructors stress rhythm, and intonation patterns as well as non-verbal and cross-cultural communication skills for social and professional situations.
Prerequisite: None.



ENVIRONMENTAL TECHNOLOGY

Associate Dean: Monica Sullivan, MS
Instructors: Associate Professor Diane O’Connell, MS
Adjunct Faculty

- ENVR 107 Soil Mechanics (3 - 2) 4 Cr. Hrs.**
This course provides an introduction to soil mechanics and foundations, and emphasizes practical applications that are supported by theory. The course concentrates on analytical techniques currently used by the environmental industry to understand the behavior of soils and to classify soils. Soil characteristics are explored by means of laboratory examination and testing techniques.
Prerequisite: A background in algebra, trigonometry and GEOG 212.
- ENVR 202 Environmental Microbiology (4 - 2) 5 Cr. Hrs.**
Study of the basic principles of environmental microbiology, including the nutritional requirements of microbes and their metabolism. Emphasis will be on microbes of environmental significance in soil, water, and air. Processes used for water purification, sewage treatment and monitoring microbial quality will be discussed. Nutrient cycling in the soil by microbes quality will be discussed, including bioremediation. The course will include at least one field trip.
Prerequisite: BIOL 101, CHEM 111 and GEOG 212.
- ENVR 204 Introductory Surveying (3 - 0) 3 Cr. Hrs.**
Introduction to field survey techniques and computer applications related to surveying. Comprehensive study of the techniques and procedures used to locate and measure features. Includes the use of surveying total station and data collector in the gathering of field data for planimetric and topographic maps.
Prerequisite: GEOG 212 and CIS 115.
- ENVR 206 Environmental Law and Regulations (3 - 0) 3 Cr. Hrs.**
This course provides an introduction to both federal and state environmental laws and regulations. Review the historical context of United States environmental legislation. Provide an introduction to major environmental legislation, including Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA/SARA), Clean Water Act (CWA), Clean Air Act (CAA), and Toxic Substances Control Act (TSCA). Companion State of Michigan legislation and rules are included. Conclude with a discussion of environmental ethics.
Prerequisite: POLS 105 should be taken concurrent with ENVR 206 and GEOG 212.
- ENVR 211 Health and Safety Training for Handling Hazardous Materials (40-Hour OSHA Training) (3 - 0) 3 Cr. Hrs.**
A health and safety training course for individuals who may be involved in the investigation, remediation and operation of hazardous waste sites. Topics include hazardous materials chemistry, toxicology, air monitoring instrumentation, air purifying respirators, self-contained breathing apparatus, protective clothing, decontamination, simulated hazardous materials response incidents, and problem sets. This course satisfies CFR Part 1910.120(e) under SARA.
Prerequisite: ENVR 206 and GEOG 212.

ENVR 215 Environmental Seminar (1 - 0) 1 Cr. Hr.

This lecture course addresses current environmental issues, such as groundwater contamination, air pollution, acid rain, environmental health, and urban design. Environmental professionals and researchers provide guest lectures concerning current and emerging technologies and trends, such as electronic communication, geosynthetic properties and applications, and quality control in environmental technology. Students have the opportunity to learn about careers in the environmental field, and meet local environmental professionals.

Prerequisite: **GEOG 212 and the completion of one year in the Environmental Technology program or consent of the instructor.**

ENVR 218 Environmental Hydrology (3 - 0) 3 Cr. Hrs.

This course is a survey of water resources and includes study of the occurrence, movement, and properties of both surface water and groundwater. Elements of the hydrologic cycle (precipitation, infiltration, evapotranspiration, evaporation, and surface runoff) are described. The impact of land use on hydrologic resources, such as the increase of storm water and degradation of water is discussed. A study of watershed management, a holistic, integrated method of managing all water resources located within a naturally occurring watershed, is included. Data and hydrologic studies for the Rouge River Watershed and its sub-basins provide a model for watershed management. The course also includes hydrologic computer mapping exercises and field-work in the Bell Branch of the Rouge River.

Prerequisite: **GEOG 130 or GEOL 133 and GEOG 212.**

ENVR 231 Field Co-op Experience (1 - 4) 5 Cr. Hrs.

The field co-op experience provides students with off-campus work experience in the environmental technology field. Students are employed as environmental technicians for engineering firms and government agencies. This work experience will allow students to build upon skills learned during the formal education of the Environmental Technology Program. Students will complete a one credit hour preparation class before field placement.

Prerequisite: **Successful completion of two years of the Environmental Technology Program.**

**FIRE TECHNOLOGY**

Associate Dean: Robert F. Pearce, MPA
Program Coordinator: John Smilnak, AAS
Instructors: Adjunct Faculty

FIRE 112 Firefighter 1—Basic Fire Suppression (6 - 4) 10 Cr. Hrs.

This course provides an introduction to basic fire suppression, prevention procedures and skill development. Firefighter 1 is provided as the first of two courses which constitute the equivalent of the Basic Fire Academy and is offered for students who prefer to attend on a part-time basis. This course is for students who are currently employed by a Michigan Fire Marshal recognized fire department, are currently seeking employment, and/or are a volunteer in a recognized fire district. Firefighter 1 meets the State-mandated requirements for preparing students to take the exam for State certification for entry-level on-call or volunteer firefighters.

Prerequisite: **Michigan State law mandates that persons taking this course must be at least 18 years of age and have a valid Michigan Driver's License.**

FIRE 119 Firefighter 2—Advanced Fire Suppression (7 - 3) 10 Cr. Hrs.

Firefighter 2 is the second of two courses, which together make up the equivalent of the Basic Fire Academy and is offered for students who prefer to attend on a part-time basis. This course deals with advanced fire suppression techniques, including prevention procedures and skill development. This course is for students who are currently employed by a Michigan Fire Marshall recognized fire department, are currently seeking employment, and/or are a volunteer in a recognized fire district. Firefighter 2 meets the State mandated requirements for preparing students to take the exam for state certification for entry-level career firefighters.

Prerequisite: **Fire 112. Michigan State law mandates that persons taking this course must be at least 18 years of age and have a valid Michigan Driver's License.**

FIRE 124 Fire Academy (13 - 7) 20 Cr. Hrs.

The Fire Academy combines FIRE 112 (Firefighter 1) and FIRE 119 (Firefighter 2), providing comprehensive training in fire suppression, prevention procedures and skill development. This course is for students who are currently employed by a Michigan Fire Marshall recognized fire department, are currently seeking employment, and/or are a volunteer in a recognized fire district. Students must be able to attend on a full-time basis. The Fire Academy meets the State-mandated requirements for preparing students who intend to become professional Michigan firefighters to take the State certification exam for entry-level career firefighters.

Prerequisite: **Michigan State law mandates that persons taking this course must be at least 18 years of age and have a valid Michigan Driver's License.**



FIRE 128 Firefighting Hydraulics & Water Supply (4 - 0) 4 Cr. Hrs.
This course is a study of the principles of fluid in motion. More specifically, it concentrates on water and its use as a fire extinguishing agent. This course covers theory and application of water delivery and associated problems.

Prerequisite: None.

FIRE 130 Firefighting Tactics and Strategy (3 - 0) 3 Cr. Hrs.
This course examines new technology, firefighting techniques and improved equipment. Also provided is a guide for firefighters and fire officers who need methods for handling specific situations. Students will learn general principles of firefighting, engine company operations, search and rescue, structure fires, and fire-related emergencies.

Prerequisite: None. **Fire 112 recommended.**

FIRE 135 Fire Protection Systems (3 - 0) 3 Cr. Hrs.
This course is designed to provide the student with an understanding of the basic principles involved in the design and operation of existing suppression and detection systems found in most structures. Specific topics of discussion include: portable extinguishers, dry chemical systems, extinguishing foams, fire detection systems, smoke detection systems, and other related topics.

Prerequisite: None.

FIRE 141 Special Topics—Incident Command System (1 - 0) 1 Cr. Hr.

This course is designed to educate the student in a recognized system used for managing available resources in emergencies such as fires, civil disturbances, earthquakes, explosions, acts of terrorism or other natural or man-made incidents. The students will learn basic guidelines and procedures for controlling personnel, facilities, equipment and communication that can be adapted to any emergency situation as mandated by Federal and State laws and standards.

Prerequisite: None.

FIRE 142 Special Topics—Terrorism Awareness (1 - 0) 1 Cr. Hr.
Terrorist incidents or those suspected to be terrorist related pose special hazards to public safety personnel and require unique considerations and actions. This course will provide students with the ability to recognize potential targets, identify incidents, and establish priorities and safe response procedures.

Prerequisite: None.

FIRE 200 Fire and Arson Investigation (4 - 0) 4 Cr. Hrs.
This course is designed to acquaint students with data on fire dynamics, explosions and fire behavior. Fire and Arson Investigation is for students interested in learning fundamentals of collection, preservation and analysis of physical evidence. New laws, court decisions controlling investigator's access to scenes, and admission of evidence will be presented. This course prepares students for on-scene investigation as well as in-service or promotional exams.

Prerequisite: FIRE 112 or FIRE 124.

FIRE 205 Fire Department Organization and Administration (3 - 0) 3 Cr. Hrs.

Students will be confronted with challenging management problems and deliver practical solutions for managing today's fire departments. Students will learn leadership skills: motivating and disciplining personnel, accepting cultural diversity and unity, managing human resources, the use of computer technology for information management and strategic planning and budgeting.

Prerequisite: None.

FIRE 207 Fire Company Officer (3 - 0) 3 Cr. Hrs.

It is essential that Fire Company Officers be well versed in the areas of management, leadership, and human relations. This course will examine the skills required to function as a Fire Company Officer. Students will cover both traditional and contemporary methods of supervision, planning, staffing, and training. The course objectives will parallel NFPA 1021, Fire Officer Professional Qualifications. Combined with the knowledge of essential firefighting skills, this course provides students with the competencies required for a first-line fire company officer.

Prerequisite: FIRE 119 or FIRE 124.

FRENCH

Interim Assistant Dean: Cheryl D. Hawkins, MS

Instructors: Adjunct Faculty

FR 101 Elementary French 1 (4 - 0) 4 Cr. Hrs.

Fundamentals of pronunciation, basic grammar structure and essential vocabulary; particular emphasis placed on speaking and understanding French; practice in written French given by means of dictation and easy translation.

Prerequisite: None.

FR 102 Elementary French 2 (4 - 0) 4 Cr. Hrs.

Continuation of FR 101. Continued emphasis on the spoken language and reading of graded materials in French for comprehension without translation; extensive use of French in the classroom.

Prerequisite: One year of high school French or a grade of 2.0 or better in FR 101 or consent of instructor.

FR 201 Intermediate French 1 (4 - 0) 4 Cr. Hrs.

Continuation of FR 102. Review and application of essential principles of French grammar structure and training, idiomatic usage through oral and written exercises; intensive practice of the spoken language; reading of representative French prose for comprehension; development of ability to read rapidly without translation.

Prerequisite: Two years of high school French or a grade of 2.0 or better in FR 102 or consent of instructor.

FR 202 Intermediate French 2 (4 - 0) 4 Cr. Hrs.

Continuation of FR 201. Emphasis on oral skill, conversation, and reading without translation.

Prerequisite: Three years of high school French or a grade of 2.0 or better in FR 201 or consent of instructor.



GEOGRAPHY

Associate Dean: Monica Sullivan, MS
 Instructors: Associate Professor Diane O'Connell, MS
 Adjunct Faculty

GEOG 105 Earth Science for Elementary Teachers (3 - 2) 4 Cr. Hrs.

The course introduces earth science and integrates pedagogical methods appropriate for elementary teachers. The course will help prospective teachers create a resource base of knowledge and activities for teaching earth science and develop teaching strategies based on how children learn science. Included are lecture, peer teaching, selecting textbooks, demonstrations, and indoor/outdoor lesson plans.

Prerequisite: None.

GEOG 130 Physical Geography (4 - 0) 4 Cr. Hrs.

This course is designed to introduce the student to the environment by examining meteorological, climatic, geologic, and geographic processes. The environment is divided into four spheres (atmosphere, hydrosphere, biosphere, lithosphere) for purposes of study; human impact in each sphere is emphasized. Students study earth patterns and distributions of soil, vegetation, climate, and water resources. The course includes study and use of maps, atlases, aerial photographs, and satellite imagery.

Prerequisite: None.

GEOG 133 World Regional Geography (4 - 0) 4 Cr. Hrs.

World Regional Geography includes a systematic study of the world's geographic regions, including Europe, United States-Canada, Russia, Latin America, Southwest Asia, Southeast Asia, East Asia, Sub-Saharan Africa, and Australia-New Zealand. Geographic concepts, such as map reading and spatial analysis, are first introduced. Then, the world is classified into geographic regions using both physical and social criteria. Each region results from a unique interaction between the human societies and the physical and biological environment. The physical, cultural, political, and social features of each region are studied, along with any special regional concerns or problems.

Prerequisite: None.

GEOG 212 Environmental Science (3 - 0) 3 Cr. Hrs.

This course offers a general background of a variety of environmental concerns to students who possess a wide range of interests. The course begins with a discussion of population, and the problems related to the current population explosion. Then, the focus shifts to a study of natural resources, including land, groundwater, surface water, and air quality. Land resources are examined, with special attention to soil erosion and deforestation. The groundwater is defined and areas susceptible to groundwater contamination are identified. The next issue is the overuse and misuse of surface waters. The course ends with a discussion of the waste management problems, including solid waste, hazardous waste, and low-level radioactive waste landfills. Other issues will be determined by class interests. This is a Science Course.

Prerequisite: None.

GEOG 217 Water Resources (3 - 0) 3 Cr. Hrs.

Survey of water resources which includes a study of the occurrence, movement, and behavior of water in the hydrologic cycle. Discussions on the ways in which these resources can be contaminated and remediated. Includes a study of watershed management, which is a holistic, integrated method of managing all water resources located within a naturally occurring watershed. Data and hydrologic studies completed for the Rouge River Watershed provide a model for watershed management. The course offers demonstrations of hydrologic computer models and limited field experience.

Prerequisite: GEOG 130 or GEOL 133, and GEOG 212.

GEOG 225 Introduction to Geographic Information Systems—GIS (4 - 0) 4 Cr. Hrs.

This course provides an introduction to basic Geographic Information Systems/GIS concepts through in-class discussions and hands-on assignments using ArcView 3.3. The course includes theory, mapping techniques, data collection and compilation, and data analysis. Topics include implementation of a GIS, current applications, legal issues, and the future of GIS.

Prerequisite: None.

GEOG 236 Geography for International Business (3 - 0) 3 Cr. Hrs.

Geography for Business is a geography course that examines the concepts and forces that affect international business. The course includes readings and discussions concerning economic policies of nations and economic relationships nations form with each other. Topics include trade policy and regional trade blocs, multinational corporations, economic policies in developing countries, economic transition for former Communist countries, and economic policies and the environment.

Prerequisite: None.



GEOLOGY

Associate Dean: Monica Sullivan, MS
Instructors: Professor James Rexius, MS
Adjunct Faculty

GEOL 120 **Geology of Michigan (3 - 0) 3 Cr. Hrs.**

The Geology of Michigan is a history of the geological evolution of the state. Emphasis is on the identification and description of the most important and popular geological features of Michigan and the formation of our important natural resources such as iron, copper, salt, oil and gas. Two field trips, one of which is three days in Michigan's western upper peninsula, are optional.

Prerequisite: None.

GEOL 133 **Physical Geology (3 - 3) 4 Cr. Hrs.**

Physical Geology is the study of the geological processes that affect the earth. This includes a survey of what the earth is made of (rocks, minerals, etc.), how it works on the inside (plate tectonics, earthquakes, volcanic eruptions) and the processes that act upon it from the outside (streams, glaciers, wind, etc.). Identification of common rocks and minerals and the interpretation of topographic maps are part of the required laboratory exercises. An all-day Saturday field trip is optional.

Prerequisite: None.

GEOL 134 **Historical Geology (3 - 3) 4 Cr. Hrs.**

Historic Geology is the study of the history of the earth. Geologic principles and advanced plate tectonic concepts are applied to the interpretation of earth history from its early beginnings to the present time. The development of the North American continent through geologic time is presented as a case history. Geologic dating methods, interpretation of sedimentary rocks, structures, fossils and geologic maps are studied during lab exercises. One all-day field trip and a field project are required.

Prerequisite: GEOL 133.

GEOL 140 **Regional Geology (2 - 0) 2 Cr. Hrs. Each**

GEOL 141 **(Spring and/or Summer Sessions only)**

GEOL 142 A different selected geologic region of interest in the United States or Canada will be studied each
GEOL 143 spring or summer in detail. A field trip to each area
GEOL 144 can be taken to observe first hand the rocks, fossils,
GEOL 145 structures and significant depositional and erosional
GEOL 146 processes at work in that particular region. Areas
GEOL 147 to be considered include the Canadian shore of Lake
GEOL 148 Superior, southern Appalachians, northern Arizona,
GEOL 149 Black Hills, Adirondack Mountains, Yellowstone area, Costa Rica or others as requested. Check with department for next area to be studied. A student may enroll in any regional course or in more than one, in subsequent years.

Prerequisite: GEOL 133.

GEOL 237 **Mineralogy (3 - 2) 4 Cr. Hrs.**

Mineralogy teaches the basics of crystal formation, crystal symmetry and crystal chemistry of the most important rock forming and economic minerals of the earth's crust. Also included is the formation of minerals, mineral occurrences and associations. Laboratory periods concentrate on the methods used in the identification of about 100 minerals.

Prerequisite: GEOL 133.

GERMAN

Interim Assistant Dean: Cheryl D. Hawkins, MS
Instructors: Adjunct Faculty

GER 101 **Elementary German 1 (4 - 0) 4 Cr. Hrs.**

Fundamentals of pronunciation, basic grammar structure, and essential vocabulary with particular emphasis placed on speaking and understanding German; practice in written German given by means of dictation and easy translation. Workbook exercises required.

Prerequisite: None.

GER 102 **Elementary German 2 (4 - 0) 4 Cr. Hrs.**

Continuation of German 101 with emphasis on German business culture and introductory terminology, focus on formal address. Continued emphasis on the listening, speaking, reading of graded materials, writing and understanding German through extensive use in the classroom as well as vocabulary extension and sentence structure/composition. Workbook exercises required.

Prerequisite: Minimum one year of high school German, or a grade of 2.0 or better in GER 101 or with consent of instructor.

GER 201 **Intermediate German 1 (4 - 0) 4 Cr. Hrs.**

Continuation of GER 102. Review and application of essential principles of German structure and basic application of Business German terminology. Continued emphasis on listening, speaking, reading of selected business and grammar sections. Understanding advanced grammatical structures through writing and speaking in the classroom. Workbook exercises required.

Prerequisite: Two years of high school German or a grade of 2.0 or better in GER 102 or with consent of instructor.

GER 202 **Intermediate German 2 (4 - 0) 4 Cr. Hrs.**

Continuation of GER 201. Review and application of essential principles of German structure and more elaborate application of Business German terminology. Continued emphasis on listening, speaking, reading of selected business sections. Understanding advanced grammatical structures through writing and speaking in the classroom. Workbook exercises required.

Prerequisite: Three years of high school German or a grade of 2.0 or better in GER 201 or with consent of instructor.



HEALTH INFORMATION TECHNOLOGY

Associate Dean: Robert F. Pearce, MPA
 Coordinator/Instructor: Professor Patricia Rubio, MSA
 Instructors: Associate Professor Jody Scheller, MS
 Adjunct Faculty

- HIT 104 Medical Terminology (4 - 0) 4 Cr. Hrs.**
 Fundamentals of the language of the medical profession. Definitions, pronunciations, spelling and abbreviations of anatomical, symptomatic, diagnostic and operative terms pertaining to each anatomical system of the body. Medical terms will also include those pertaining to pharmacy, clinical laboratory, radiology and pathology.
Prerequisite: None.
- HIT 109 Principles of Health Information Management 1 (2 - 2) 3 Cr. Hrs.**
 The health information management profession. The health information management department, its functions and how it relates to other departments. The health/medical record and its format, content and various agency requirements. Techniques used in the storage and maintenance of health/medical records. Laboratory assignments utilizing the health/medical record as seen in healthcare facilities.
Prerequisite: None.
- HIT 111 ICD-9-CM Classification (2 - 2) 3 Cr. Hrs.**
 This course is designed for the classification of patient morbidity and mortality information for statistical purposes and for the indexing of health/medical records by disease and operation for data storage and retrieval. Diagnostic coding and reporting guidelines for hospital inpatient and outpatient services will be utilized.
Prerequisite: HIT 104, HIT 109, and BIOL 236 or consent of department.
- HIT 112 Basic Laboratory and Diagnostic Tests (2 - 0) 2 Cr. Hrs.**
 This course is designed to prepare an allied health student to identify clinical laboratory and diagnostic tests. The student will develop an understanding of what the laboratory and diagnostic test is used for; diseases, diagnoses or disorders associated with the test; and the normal range or results of the test. Students will complete case studies to demonstrate a working knowledge of laboratory and diagnostic tests.
Prerequisite: HIT 104 or consent of department.
- HIT 114 Pharmacology for Health Professionals (2 - 0) 2 Cr. Hrs.**
 This course is designed as an introduction to the principles of pharmacology, with a comprehensive review of drug action, routes of administration, indications for use of generic drugs, and trade name drugs. The course will provide practice in pronunciation, spelling, and utilizing drug references. Class activities will assist the student in identifying drugs used to treat various body systems.
Prerequisite: HIT 104.
- HIT 154 Health Record Practicum (0 - 4) 3 Cr. Hrs.**
 Hands on experience using a chart management system that allows for chart tracking, chart deficiency, coding and abstracting, master patient index, and admission/discharge/transfer functions. Simulation of health information management activities utilizing health/patient records, software applications and manual systems.
Prerequisite: HIT 104 and HIT 109.
Corequisite: HIT 156.

- HIT 156 Clinical Affiliation 1 (0 - 4) 2 Cr. Hrs.**
 Provides professional practice assignments for the student in a Health Information Management/Services department under the supervision of a qualified Health Information Management professional. The student will have the opportunity to observe and interact with the Health Information Management professional in a variety of healthcare facilities at off-campus sites. The student will observe, perform and report on the procedures in health information systems in a variety of healthcare facilities.
Prerequisite: HIT 104, HIT 109, BIOL 236 and consent of department.
Corequisite: HIT 154.
- HIT 210 Principles of Health Information Management 2 (2 - 2) 3 Cr. Hrs.**
 This course introduces students to terminology, definitions and computational methodology of the basic and most frequently used health statistics. Topics include healthcare data collection, preparation, analysis and interpretation; cancer program requirements; vital statistics reporting.
Prerequisite: HIT 104, HIT 111, and HIT 154.
- HIT 213 Health Information Technology Seminar (1 - 0) 1 Cr. Hr.**
 This course will assist the student in preparation for the registered health information technician examination. The student will develop a study plan to be utilized on an individual and/or group basis. The student will complete a mock examination. The student will also begin preparation for a job search. A research of job opportunities that are currently available will be identified. The impact of continuing education upon the health information management profession will be discussed and a plan for maintaining certification will be developed.
Corequisite: HIT 258.
- HIT 216 Health Care Delivery Systems (2 - 0) 2 Cr. Hrs.**
 A comprehensive review of the health care industry. The course will incorporate trends and changes related to health care facilities such as acute care hospitals, specialty hospitals, nursing homes, managed care organizations, hospice and home health care. The course will also deal with the impact and use of computers in the delivery and documentation of health care and the role of the health information professional in response to the health care delivery systems.
Prerequisite: HIT 104, HIT 111, and HIT 154.
- HIT 217 Quality Management in Health Care (2 - 0) 2 Cr. Hrs.**
 Designed for the health information technology student, this course reviews methods by which a healthcare organization measures, assesses and improves the quality of healthcare services. Topics include traditional quality assessment performance improvement, utilization/resource management, risk management, infection control, credentialing and the role of oversight agencies.
Corequisite: HIT 257.
- HIT 218 Basic Ambulatory Coding (3 - 0) 3 Cr. Hrs.**
 This course is designed to prepare a student to code in the ambulatory setting using Current Procedural Terminology (CPT). The course will emphasize the reporting requirements for codes and rules that apply to the reimbursement systems used by government payers and other health plans. The student will be introduced to computerized coding systems utilized in healthcare. The emphasis of the course will be coding for facility services and procedures.
Prerequisite: HIT 104, HIT 109, HIT 111, HIT 271, and BIOL 236.

- HIT 219 Organization and Management (1 - 2) 2 Cr. Hrs.**
Health information professionals make decisions that demand effective planning, organization, motivation and communication skills. Effective supervision of human and other resources is also essential in today's changing world of healthcare. This course provides the health information technology student with basic management concepts and theories that are applied in the Health Information Services/Management environment.
Corequisite: HIT 258.
- HIT 220 Legal Aspects of Health Information (3 - 0) 3 Cr. Hrs.**
This course provides the health information technology student with the legal requirements concerning the compilation and maintenance of patient health/medical records. Additional topics include how health information is used and when it can be disclosed; state and federal regulations, statutes, including the privacy rules resulting from the Health Insurance Portability and Accountability Act (HIPAA).
Prerequisite: HIT 210, HIT 216, and HIT 257.
- HIT 226 Intermediate ICD-9-CM Coding (3 - 0) 3 Cr. Hrs.**
This course is designed to prepare a student to code in the hospital setting using ICD-9-CM. The course will emphasize the reporting requirements for codes and rules that apply to the reimbursement systems used by government payers and other health plans. The student will be introduced to computerized coding systems utilized in health care. The emphasis of the course will be the development of intermediate skills to code accurately and ethically. Students will assign codes for diagnoses, services and procedures that are documented in the health/medical record.
Prerequisite: HIT 111, HIT 271, and BIOL 236.
- HIT 228 Intermediate Ambulatory Coding (3 - 0) 3 Cr. Hrs.**
This course is designed to prepare a student to code in the ambulatory setting using Current Procedural Terminology (CPT) and Healthcare Financing Administration Common Procedure Coding System (HCPCS). The course will emphasize where documentation can be located within the various reports in the health/medical record as needed to apply CPT guidelines for accurate CPT/HCPCS coding. Students will apply the principles and conventions of CPT coding to exercises based on actual case documentation and health/medical records. The student will analyze clinical data for the purpose of coding and reimbursement in the ambulatory setting including the physician office.
Prerequisite: HIT 111, HIT 218, HIT 271, and BIOL 236.
- HIT 230 ICD-9-CM Coding Practicum (1 - 1) 2 Cr. Hrs**
This course will provide practical hands-on experience with ICD-9-CM coding of health/medical records. The student will apply official coding guidelines to a variety of clinical cases and record types such as hospital inpatient, outpatient, and physician office or service. The student will utilize the computerized encoding systems for diagnosis and procedure coding. The student will research references in solving coding problems.
Prerequisite: HIT 226 and HIT 228.
- HIT 231 Ambulatory Coding Practicum (1 - 1) 2 Cr. Hrs**
This course will provide practical hands-on experience with Current Procedural Terminology (CPT) coding of health/medical records. The student will apply official coding guidelines to a variety of clinical cases and record types such as ambulatory, emergency, outpatient, and physician office or service. The student will utilize the computerized encoding systems for ambulatory and procedure/services coding. The student will research references in solving coding problems.
Prerequisite: HIT 226 and HIT 228.
- HIT 257 Clinical Affiliation 2 (0 - 8) 4 Cr. Hrs.**
Provides professional practice assignments for the student in a Health Information Management/Services department under the supervision of a qualified Health Information Management professional. The student will have the opportunity to observe and interact with the Health Information Management professional in a variety of healthcare facilities at off-campus sites such as a large, medium or small acute care hospital. The student may be assigned to other types of healthcare facilities such as rehabilitation, mental health or governmental type of organization. The student will observe, perform and report on the procedures utilized within health information systems.
Prerequisite: HIT 111, HIT 154, HIT 156, and HIT 271.
- HIT 258 Clinical Affiliation 3 (0 - 8) 2 Cr. Hrs.**
Provides professional practice assignments for the student in a Health Information Management/Services Department under the supervision of a qualified Health Information Management professional. The student will have the opportunity to observe and interact with the Health Information Management professional in a variety of healthcare facilities at off-campus sites. The student will observe, perform, and report on the procedures/functions utilized within health information systems in facilities, organizations or agencies related to healthcare. The student may be assigned to a hospital, cancer registry, cancer center, research department, ambulatory center or other related healthcare organization.
Prerequisite: HIT 210, HIT 216, HIT 217, HIT 257 and consent of department.
- HIT 271 Human Diseases (4 - 0) 4 Cr. Hrs.**
This course is designed to build on the knowledge of anatomy and physiology, and medical terminology. It will introduce the student to the disease processes and their effect on the individual body systems. The student will develop an understanding of the types of treatments for diseases which may include pharmacology, surgery and other therapies.
Prerequisite: BIOL 105 or BIOL 236 or BIOL 237 and BIOL 238 and HIT 104.



HISTORY

Interim Assistant Dean: Cheryl D. Hawkins, MS

Instructors: Professor Robert Briggs, MAT
Professor Evan Garrett, MA
Assistant Professor Steven Berg, PhD
Assistant Professor Alexander Thomson, MA
Adjunct Faculty

HIST 134 Ancient World (4 - 0) 4 Cr. Hrs.

A survey of prehistoric and ancient times: origins of human nature and culture; early gathering-hunting and planting-herding societies; origins of civilization in the Middle East, India, China, the Mediterranean and elsewhere; civilized-barbarian interaction and the rise of early Old World empires; rise of classical civilizations, especially Greece and Rome; rise of the higher religions, especially the Judaeo-Christian traditions; decline of classical civilizations, with emphasis on the fall of Rome and the rise of medieval Europe, Byzantium and Islam.

Prerequisite: None.

HIST 137 Early Modern World (4 - 0) 4 Cr. Hrs.

A survey of the balance of world civilizations in medieval and early modern times: American and African peripheral regions; major civilizations of Asia and Europe in the Middle Ages; 14th–16th century crisis and renewal; expansion of Europe in the age of Renaissance, Reformation and discovery; rise of the Great-Power system; the scientific revolution and Enlightenment; the democratic and industrial revolutions; emergence of modern ideologies and nations; climax of European expansion in the age of imperialism, to the late 19th century.

Prerequisite: None.

HIST 138 Contemporary World (3 - 0) 3 Cr. Hrs.

A survey of the main themes in the history of the world in the last hundred years: the Eurocentric world order of 1900; World War I, communist revolution and fascist counterrevolution; the settlements of the 1920s and the renewal of world crisis in the 1930s; World War II and the onset of the Cold War in the 1940s–1960s; erosion and collapse of the postwar order in the 1970s–1980s; the contemporary world order in the historical context.

Prerequisite: None.

HIST 141 History of Michigan and the Great Lakes (3 - 0) 3 Cr. Hrs.

A general survey of the historical development of Michigan from the primitive wilderness to the present; growth of certain political, economic, social and cultural institutions which contribute to understanding Michigan and the Great Lakes area today; emphasis on relating the history of the state to that of both the area and the nation.

Prerequisite: None.

HIST 151 Early America—U.S. History (3 - 0) 3 Cr. Hrs.

A survey of the origins of American civilization: Native American societies in pre-Colombian and colonial times; European discovery, exploration, conquest and settlement of the Americas; Iberian, French and African elements in the early Americas; 17th and 18th century English colonial development; the Revolutionary era and the founding of the U.S.; Federalist and Jeffersonian America, to the early 19th century.

Prerequisite: None.

HIST 152 19th Century America—U.S. History (3 - 0) 3 Cr. Hrs.

A survey of the expansion, crisis and renewal of the U.S. in the 19th century: demographic, economic, social and cultural change in Jacksonian America; the North and antebellum reform movements; the South and slavery; the West and territorial conquest and settlement; sectional struggle, the Civil War and Reconstruction; emergence of modern, urban, industrial America, to the beginning of the 20th century.

Prerequisite: None.

HIST 153 Contemporary America—U.S. History (3 - 0) 3 Cr. Hrs.

A survey of American civilization within the last hundred years: turn-of-the-century growth and crisis; the Progressive Era and World War I; the 1920s, the Great Depression and the New Deal; World War II and the emergence of the United States as a superpower; affluence, consensus and confrontation in the 1950s–1960s; malaise, drift and fragmentation in the 1970s–1980s; the U.S. in the world of the late 20th century.

Prerequisite: None.

HIST 230 U.S. Business History (1865-Present) (3 - 0) 3 Cr. Hrs.

An examination of major business and economic development in the U.S. from the Civil War to the present. Emphasis will be placed on the ideas, forces and personalities in the ever changing role of business and economics and their impact on the nation and its citizens. Recommended for students majoring in business, economics and history.

Prerequisite: None.

HUMAN DEVELOPMENT SERVICES

Director: Donna Nordman, MA

Instructors: Adjunct faculty

HDS 110 Career Decision Making (2 - 0) 2 Cr. Hrs.

This class assists the student in examining the components of career/job choice. The focus is on career awareness, personal awareness, and education/training awareness as they relate to the process of occupational choice. Self-assessment instruments will help students identify tentative career options, decision-making strategies, obstacles and planning skills.

Prerequisite: None.



HUMANITIES

Interim Assistant Dean: Cheryl D. Hawkins, MS

Instructors: Associate Professor James Nissen, DMA
Assistant Holly Stevens, MA
Adjunct Faculty

HUM 106 Introduction to Art and Music (1 - 0) 1 Cr. Hr.

This course provides an overview of music and art including major composers, painters, sculptors and styles. The focus will be on the basic elements underlying the visual and aural arts. The course also prepares students to begin to develop an understanding of how to perceive music and art, both aesthetically and historically. Outside attendance at one live concert and one visual media exhibition is required. No prior technical knowledge is needed.

Prerequisite: None.

HUM 150 World Masterpieces (3 - 0) 3 Cr. Hrs.

This course serves as an introduction to some of the great works of art and music in the western world, from Greek civilization to the present. The course will cover the major periods/styles in art and music history: Greek, Roman/Early Christian, Romanesque, Gothic, Renaissance, Baroque, Classical, Romantic, Modern (1900–1945) and Post-Modern (1945–present). Art and music masterpieces to be studied will be selected from the main repertoire of significant works of the western world. The course will also cover fundamentals of integrative art and music appreciation. A background in art and/or music is not required.

Prerequisite: None.

HUM 190 Individual Humanism—An Honors Colloquium (3 - 0) 3 Cr. Hrs.

A required introduction to the Schoolcraft Scholars honors program, this colloquium studies the individual and the community through multiple disciplines. Topics of the colloquium may include, but are not limited to, the human condition; individual renaissance and enlightenment; the role of individuals in a society of change, transition and revolution; the unanswered question; and taking an active role on the social stage. Additionally, students in this course collaborate, practice critical thinking, and explore both community issues and community-based organizations.

Prerequisite: Acceptance to the Schoolcraft Scholars honors program.

HUM 201 Art and Music in Western Civilization: Field Study—England (3 - 0) 3 Cr. Hrs.

Field Study; A humanistic study of music and art in concentrated form. Includes art forms and functional styles of historical periods as they relate to universal principles. The course will include studies in English history, culture and geography. The course will conclude with a ten-day trip to London, England, with day trips to Cambridge, Canterbury, Bath, Stonehenge, Ely, and other satellite locations. The tour will include visits in the National Gallery and the British Museum as well as other museums, and will include visits to several palaces, castles, cathedrals, and performing arts centers to facilitate a live, firsthand encounter with English arts and culture.

Prerequisite: HUM 106 or HUM 150 or consent of Instructor.

HUM 202 The Humanities in Western Civilization:

Field Study—France (3 - 0) 3 Cr. Hrs.

Field Study; A humanistic study of the arts, culture, and history in concentrated form. Includes art forms and functional styles of historical periods as they relate to universal principles. The course will include studies in French history, culture and geography. The course will conclude with a ten-day trip to Paris, France, which will include visits to the Louvre Museum, Musee D'Orsee (and other museums/galleries), Notre Dame Cathedral (and other cathedrals), day trips to Versailles, Giverny, St. Germain, St. Denis, and other culturally and historically significant centers to facilitate a live, firsthand encounter with French arts and culture.

Prerequisite: HUM 106 or HUM 150 or consent of Instructor.

HUM 203 Art and Music in Western Civilization:

Field Study—Italy (3 - 0) 3 Cr. Hrs.

This course will serve as an in-depth look at the history, culture and people of Italy, with specific concentration on Roman art, architecture and civilization, and the early Renaissance Florentine art and music masterworks. The course will include studies in Italian history, culture, geography and language. Basic Italian language skills will be taught to facilitate the rigors of tourism in a foreign country. The course will culminate in a 12-day tour to Italy and will include stays in Rome, Venice and Florence, with day trips to satellite cities such as Sienna, Padua and Ravenna. The tour will include visits to the Colosseum, the Pantheon, St. Peter's and the Vatican Museum in Rome, the Florence cathedral, St. Mark's in Venice, as well as several museums and performing arts centers to facilitate a live, firsthand encounter with Italian arts and culture.

Prerequisite: HUM 106 or HUM 150 or consent of instructor.

HUM 204 Art and Music in Western Civilization:

Field Study—Spain (3 - 0) 3 Cr. Hrs.

This course will serve as an in-depth look at the history, culture and people of Spain, with specific concentration on painting, architecture, and music of the Spanish masters from the Renaissance to the present. The course will include studies in Spanish history, culture, geography and language. Basic Spanish language skills will be taught to facilitate the rigors of tourism in a foreign country. The course will conclude with a ten-day trip to Madrid, Spain, with day trips to satellite cities such as Segovia, Toledo, Aranjuez, and El Escorial. The tour will include visits to the Prado Museum and the Museum of Contemporary Art, as well as other museums, and will include visits to several palaces, castles, cathedrals, and performing arts centers to facilitate a live, firsthand encounter with Spanish arts and culture.

Prerequisite: HUM 106 or HUM 150 or consent of instructor.

HUM 210 The Art of Being Human (3 - 0) 3 Cr. Hrs.

Surveys art, drama, music, literature, and philosophy. Each art form is examined from four perspectives: historical context, elements of the art, form/meaning, and criticism/evaluation.

Prerequisite: None.

HUM 212 Mass Media and Popular Culture (3 - 0) 3 Cr. Hrs.

An introduction into the nature of mass communication and their relationship with the public. The course will analyze, assess, and evaluate popular culture and mass media. Focus will be on the various forms of media, to include radio, television, film, newspaper, and advertising to determine how they influence and manipulate the ways you relate to yourself and others. Examination will include the history, economics, power, and ethical consideration of media outlets.

Prerequisite: ENG 101.

HUM 215 Humanities Through the Arts (3 - 0) 3 Cr. Hrs.

This course represents an exploratory approach to the humanities that focuses on the special role of the arts. The relation of the humanities to values is central to the purpose of the course. This approach provides a self-contained program for studying values as revealed in the arts.

Prerequisite: None.

HUM 231 Humanities in Western Culture—Antiquity Through the Renaissance (3 - 0) 3 Cr. Hrs.

An introduction to the Integrated Humanities. Culture has sometimes been defined as that which remains after the civilization has vanished. What is left behind amounts to much more than just artifacts; we are left with a legacy of the humanistic spirit. This course takes an in-depth look at culture, civilization, values and qualities inherent in Western art, architecture, music, literature and philosophy. It is also a study in Western thought and its resultant social and political institutions. The first of two-semester sequence, this course will cover Ancient River-Valley, Greek, and Roman civilizations, the Middle Ages, and the Renaissance.

Prerequisite: HUM 106 or HUM 150 or consent of instructor.

HUM 232 Humanities in Western Culture—Baroque to the Present (3 - 0) 3 Cr. Hrs.

An introduction to the Integrated Humanities. Culture has sometimes been defined as that which remains after the civilization has vanished. What is left behind amounts to much more than just artifacts; we are left with a legacy of the humanistic spirit. This course takes an in-depth look at culture, civilization, values and qualities inherent in Western art, architecture, music, literature and philosophy. It is also a study in Western thought and its resultant social and political institutions. The second of two-semester sequence, this course will cover Baroque, Classical and Romantic periods, as well as the major historical, philosophical, and artistic “isms” of the modern and post-modern Western world.

Prerequisite: HUM 106 or HUM 150 or consent of instructor.

INTERNATIONAL EDUCATION

Interim Assistant Dean: Cheryl D. Hawkins, MS

Instructor: Adjunct Faculty

INTED 201 The French Experience (3 - 0) 3 Cr. Hrs.

This course provides students with an introduction to modern France. The class will cover modern civilization, history, art, literature and language. Special emphasis will be placed on the American expatriate experience. The highlight of the course will be a two-week trip to Paris, France and environs with optional excursions to surrounding areas.

Prerequisite: None.



LASER TECHNOLOGY

Associate Dean: Bruce Sweet, MA

Instructors: Professor James Kramer, MS
Adjunct Faculty

LASR 103 Laser Concepts (4 - 0) 4 Cr. Hrs.

A basic course designed for laser technicians which covers laser operation and the technical principles and equations needed to understand them and modify their output. It also deals with optical system construction, including lenses, mirrors, prisms, optical flats, etalons, beam expanders, collimators, optical tables, optical supports, and photographic components. Associated laboratory experiments will allow the technician to get “hands-on” experience with the setup, operation and analysis of laser/optic systems.

Prerequisite: One year of high school algebra.

LASR 104 Laser Optics and Components 1 (5 - 0) 5 Cr. Hrs.

This course applies graphical and mathematical techniques to the reflection/refraction of light at typical optical interfaces. The student analyzes and uses optical components typically found in geometrical optics. Topics include ray tracing, imaging with lenses, mirrors, prisms, windows optical flats, etalons, beam expanders, collimators, optical tables, optical supports, optical systems, and photographic components and supplies. Associated laboratory stresses hands-on experience with setup, operation and analysis of typical optical systems.

Prerequisite: Two years of high school algebra.

LASR 232 Laser Systems and Applications 1 (4 - 0) 4 Cr. Hrs.

A comprehensive examination of ion lasers, molecular lasers and solid-state lasers, with particular attention given to argon ion CO₂ gaseous and Nd: YAG laser systems. Considers typical power sources for all lasers and flash lamps and power supplies for pulsed laser systems. Treats applications of the ion and CO₂ laser systems to welding, cutting and drilling. Project experiments stress hands-on experience with operation, troubleshooting and evaluations of current laser systems and power sources.

Prerequisite: LASR 103.



LEARNING RESOURCES

Interim Assistant Dean: Cheryl D. Hawkins, MS
Instructor: Professor Roy Nuffer, MSLS

- LR 110 Electronic Research (1 - 0) 1 Cr. Hr.**
This course is a basic introduction to the conduct of research. To assist them in completing their class assignments, research and term papers, students will learn to use electronic catalogs, databases, and the Internet effectively, with traditional search techniques extrapolated into the increasingly electronic environment.
Prerequisite: None.

MANUFACTURING

Associate Dean: Bruce Sweet, MA
Instructors: Professor James Kramer, MS
Adjunct Faculty

- MFG 102 Manufacturing Processes (2 - 4) 3 Cr. Hrs.**
Fundamental manufacturing processes. This course will teach fundamentals only, not machine operator skills. Particular emphasis will be on machines, tools and measurements to produce an end product.
Prerequisite: None.
- MFG 103 Manufacturing Theory and Machine Operation (2 - 4) 3 Cr. Hrs.**
Operation of the tool room lathe, horizontal mill, vertical mill, surface grinder, shaper and other machine tools, tool room and mass production procedures.
Prerequisite: MFG 102.
- MFG 165 Machinery Handbook (2 - 0) 2 Cr. Hrs.**
This course teaches industrial workers how to use and apply handbook data to their occupation. Attention is focused on the handbook as a valuable reference for succeeding courses and shop applications.
Prerequisite: Weld 109 or equivalent.
- MFG 180 Industrial Entrepreneurship (2 - 0) 2 Cr. Hrs.**
This course is designed to familiarize the technology student with the basic principles of business in order to make them knowledgeable employees or to prepare them for the eventuality of becoming a business owner. The course is intended to provide a comprehensive overview and culminates in the development of a real business plan. The course is not intended to substitute for a thorough education in a conventional business curriculum.
Prerequisite: None.
- MFG 241 Quantitative Metrology (1 - 2) 3 Cr. Hrs.**
Metrology, the foundation for interdisciplinary scientific measurement, serves as the basis for applied dimensional accuracy traceable to national and international standards. Accuracy and precision measurements are required in all facets of science, engineering and technology including product development, production and analysis. Topics include systems of measurements, evolution of standards, mandatory traceability, precision measuring equipment, gages and dimensional indicators, calibrations and methods of surface, linear, depth and height measurement.
Prerequisite: MET 102, MATH 113 or consent of department.
- MFG 243 Manufacturing Systems Analysis (3 - 0) 3 Cr. Hrs.**
Principles of plant layout, process and flow charts, tools and aids for effective plant layout. Materials handling equipment, systems, and procedures and their relationship to production control.
Prerequisite: MFG 102.

MATHEMATICS

Associate Dean: Monica Sullivan, MS
Instructors: Professor Edward Kavanaugh, MA
Professor Randy Schwartz, MA
Professor Larry Williams, MA
Associate Professor Janet Arsznov, MA
Associate Professor Linda Balfour, MA
Associate Professor Lois Bearden, MA
Associate Professor Sandra Kerr, MA
Assistant Kathy Jankoviak, MS
Assistant Professor Audrone Mingela, MA
Adjunct Faculty

The topics listed for each of the following courses do not constitute a precise syllabus for that course. Each list is intended to describe, in a broad and general way, the main content of each math course. It is possible that a topic not listed may be added to a course, or a listed topic may be replaced with one more current.

CALCULATOR REQUIREMENTS:

MATH 113: A scientific calculator is required. (If continuing in mathematics, a TI-83 Plus is recommended.)

MATH 119, 128 through 151: TI-83 Plus is required.

MATH 122, 230 and 240: TI-83 Plus is recommended.

MATH 252: TI-86 is required.

No devices with computer algebra systems, such as the TI-89 or TI-92, are permitted on exams or other graded work in any math class. For more details you may wish to consult your instructor.

For appropriate sequence of math courses, consult with a member of the Math or Counseling Department, or refer to the Mathematics Course Sequence Chart.

- MATH 045 Basic Mathematics (4 - 0) 4 Cr. Hrs.**
The fundamental operations with whole numbers, fractions, decimals, percentages, proportions, and integers. Several topics from geometry are included.
Prerequisite: None.
- MATH 047 Prealgebra (3 - 0) 3 Cr. Hrs.**
This course is intended for the student who is competent in arithmetic. Topics include an introduction to variables, signed numbers, and algebraic expressions; a review of the arithmetic operations on fractions, decimals and percents; solving equations and applications; ratio and proportions; and applications using simple geometry measurement formulas.
Prerequisite: A grade of 2.0 or better in MATH 045 or equivalent.
- MATH 053 Beginning Algebra (4 - 0) 4 Cr. Hrs.**
Real number system, fundamental operations with real numbers, graphing, linear equations, factoring polynomials, rational expressions, exponents, quadratic equations, applications, and introduction to function concept.
Prerequisite: A grade of 2.0 or better in MATH 047 or equivalent.
- MATH 055 Plane Geometry (3 - 0) 3 Cr. Hrs.**
Basic elements of geometry including deductive reasoning and formal proofs; elementary construction with straightedge and compass.
Prerequisite: A grade of 2.0 or better in MATH 053 or equivalent.

- MATH 105 Mathematics for Elementary Teachers 1 (4 - 0) 4 Cr. Hrs.**
This is the first of a two-course sequence designed for students who plan to enter elementary school teaching. The course covers problem solving, number theory, sets, functions, numeration, the real numbers and their properties and operations.
Prerequisite: A grade of 2.0 in MATH 053 or equivalent.
- MATH 106 Mathematics for Elementary Teachers 2 (4 - 0) 4 Cr. Hrs.**
This is the second of a two-course sequence designed for students who plan to enter elementary school teaching. The course covers geometry, measurement, statistics, and probability.
Prerequisite: A grade of 2.0 in MATH 105 or equivalent.
- MATH 111 Applications: Utility of Math (4 - 0) 4 Cr. Hrs.**
This course is intended for students who do not wish to pursue the study of mathematics by following the standard sequence of courses, but who need to develop some competency in mathematics for an Associate of Arts degree. This course includes the practical application of mathematics. Topics include geometry, managing money, interest, installment buying, credit cards, loans, probability, statistics and graphing.
Prerequisite: A grade of 2.0 or better in Math 045 or equivalent.
- MATH 113 Intermediate Algebra for College Students (4 - 0) 4 Cr. Hrs.**
Review of algebraic operations, problem solving strategies, integer and rational exponents; complex numbers; solving equations; function concept; graphs and applications of linear, quadratic, exponential, and logarithmic functions; and systems of equations.
Prerequisite: Minimum grade of 2.0 in MATH 053 or equivalent. (Placement test available in LAC-MC220)
- MATH 119 Trigonometry (3 - 0) 3 Cr. Hrs.**
NOTE: Business and social science majors should take MATH 128 instead of MATH 119.
Trigonometric functions and their graphs, identities, equations, and inverse functions; solutions of right and oblique triangles.
Prerequisite: A grade of 2.0 or better in MATH 055 and MATH 113 or equivalent.
- MATH 122 Elementary Statistics (4 - 0) 4 Cr. Hrs.**
NOTE: The Math department recommends that business and social science majors take MATH 122 following MATH 135.
Introduction to statistics, statistical descriptions, frequency distributions, possibilities and probabilities, probability distributions, sampling and sampling distributions; testing hypotheses based on measurements, count data, and paired data; and nonparametric tests.
Prerequisite: A grade of 2.0 or better in MATH 113 or equivalent.
- MATH 128 Precalculus—Without Trigonometry (4 - 0) 4 Cr. Hrs.**
NOTE: Math 128 is recommended for business and social science majors.
The function concept, polynomial, rational, exponential, and logarithmic functions, curve sketching, systems of linear equations and inequalities, graphical solutions and business applications.
Prerequisite: Minimum grade of 2.0 in MATH 113 or equivalent. **Note: The combination of MATH 119 and 128 is not comparable to MATH 129. MATH 128 is a prerequisite for 145 but is not a prerequisite for MATH 150.**
- MATH 129 Precalculus—With Trigonometry (5 - 0) 5 Cr. Hrs.**
NOTE: MATH 129 is recommended for engineering, science and math majors.
The function concept, polynomial, rational, exponential, logarithmic, rapid review of trigonometric and inverse trigonometric functions, solving equations and systems of equations; curve sketching, complex numbers, coordinate geometry, conic sections. Prevailing theme is applications and graphical solutions.
Prerequisite: A grade of 2.0 or better in MATH 113 and MATH 119 or equivalent.
- MATH 135 Finite Mathematics (4 - 0) 4 Cr. Hrs.**
NOTE: MATH 135 is oriented to business and social science majors.
Matrices and their applications to linear equations and linear programming, the simplex method, elementary probability, mathematics of finance.
Prerequisite: A grade of 2.0 or better in MATH 128 or equivalent.
- MATH 145 Calculus for Business and Social Science (4 - 0) 4 Cr. Hrs.**
Differentiation of algebraic, exponential and logarithmic functions, curve sketching, optimization, constrained optimization, integration, introduction to functions of several variables, and applications.
Prerequisite: A grade of 2.0 or better in MATH 128 or equivalent.
- MATH 150 Calculus with Analytic Geometry 1 (5 - 0) 5 Cr. Hrs.**
Oriented to engineering, science, and mathematics majors. Limits and continuity, derivatives and integrals of algebraic and some trigonometric functions, curve sketching with the aid of the graphing calculator; applications.
Prerequisite: A grade of 2.0 or better in MATH 129 or equivalent.
- MATH 151 Calculus with Analytic Geometry 2 (5 - 0) 5 Cr. Hrs.**
NOTE: MATH 151 may be taken concurrently with MATH 230.
Derivatives and integrals of transcendental functions, techniques of integration, indeterminate forms, improper integrals, infinite series, numerical methods, conics, polar coordinates, and applications.
Prerequisite: A grade of 2.0 or better in MATH 150 or equivalent.
- MATH 230 Linear Algebra (4 - 0) 4 Cr. Hrs.**
Systems of linear equations, matrices, determinants, Euclidean vector spaces, general vector spaces, inner product spaces, eigenvalues and eigenvectors, diagonalization, linear transformations, and applications.
Prerequisite: A grade of 2.0 or better in MATH 150. **MATH 230 may be taken concurrently with MATH 151.**
- MATH 240 Calculus with Analytic Geometry 3 (5 - 0) 5 Cr. Hrs.**
Vectors in the plane, vectors in three-space, solid analytic geometry, partial derivatives, line integrals, multiple integrals and applications.
Prerequisite: A grade of 2.0 or better in MATH 151 or equivalent.
- MATH 252 Differential Equations (5 - 0) 5 Cr. Hrs.**
First order differential equations, second order linear equations, series solutions of second order linear equations, higher order linear equations, the Laplace transform, systems of first order linear equations, numerical methods and qualitative theory of differential equations.
Prerequisite: A grade of 2.0 or better in MATH 240 or equivalent. **While not a prerequisite, the Math Department recommends taking MATH 230 before electing MATH 252.**

MEDICAL ASSISTING

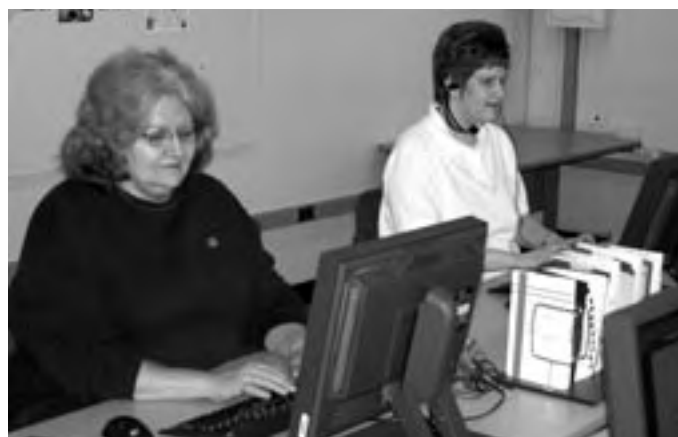
Associate Dean: Robert F. Pearce, MPA
 Coordinator/Instructor: Professor Patricia Rubio, MSA
 Instructor: Adjunct Faculty

- MA 110 Phlebotomy (4 - 0) 4 Cr. Hrs.**
 This course teaches basic technical skills necessary for a phlebotomist to draw blood in various health care settings such as hospital labs, doctors' offices and clinics. Proper procedures are stressed for the safe collection and handling of clinical specimens obtained by venipuncture or capillary puncture from adults, children and infants. This course also defines the role of the phlebotomist in the health care setting.
Prerequisite: None.
- MA 134 Medical Insurance Coding (3 - 0) 3 Cr. Hrs.**
 Introduces the student to insurance coding guidelines developed for use with the International Classification of Diseases, (ICD-9-CM), Current Procedural Terminology, (CPT-4) and Health Care Financing Administration Common Procedure Coding System, (HCPCS). The course is designed to develop coding skills to record the services and procedures that are provided for the patient. The importance of accurate coding will be discussed as it is an essential part of reimbursement.
Corequisite: HIT 104.
- MA 140 Medical Office Procedures (3 - 0) 3 Cr. Hrs.**
 This course introduces the student to the types of medical office practice, telephone procedures, specifics of appointment making, filing, office organization, public relations, mailing, and job applications of relevance to the medical profession.
Prerequisite: None. Typing proficiency is required.
- MA 155 Medical Insurance Billing (3 - 0) 3 Cr. Hrs.**
 Introduces student to various types of medical insurance; Blue Cross/Blue Shield, Medicare, Medicaid, Champus and Worker's Compensation and other third-party payers; teaches students to perform the tasks necessary to process claim forms for each type of medical insurance.
Prerequisite: MA 134 and HIT 104.
- MA 174 Medical Laboratory Techniques (4 - 0) 4 Cr. Hrs.**
 This course will provide the opportunity for the student to practice the techniques for performing laboratory procedures. The student will practice preparing the patient for tests, collecting samples, completing the tests, and reporting the results to the physician. The student will practice laboratory procedures such as urinalysis, hematology, bacteriology, chemistries, blood typing, and patient preps.
Prerequisite: BIOL 105, HIT 104, MA 140, and MA 110.
- MA 180 Medical Office Clinical Procedures (3 - 3) 4 Cr. Hrs.**
 Introduces the student to examination techniques, injections, minor surgery, medications and pharmacology, sterilization procedures and autoclave.
Prerequisite: BIOL 105, HIT 104, MA 134, MA 140 and MATH 045.
- MA 195 Office Practicum (1 - 15) 3 Cr. Hrs.**
 The student will participate in an externship under the direction of a physician and medical assistant. The externship is structured to provide experiences in performing administrative and clinical procedures in a health care setting. The student will interact with other health care professionals in facilities such as the physician's office, ambulatory care center, clinic and hospital.
Prerequisite: Successful completion of all academic and medical assisting courses.

MEDICAL TRANSCRIPTION

Associate Dean: Robert F. Pearce, MPA
 Coordinator/Instructor: Professor Patricia Rubio, MSA
 Instructors: Associate Professor Jody Scheller, MS
 Adjunct Faculty

- MT 106 Principles of Medical Transcription (2 - 0) 2 Cr. Hrs.**
 An introduction to the role of the medical transcriptionist in the health care setting. The student will acquire knowledge of the types of forms and content used and required in medical transcription. The content of the course will also include the legalities and standards that apply to medical transcription.
Prerequisite: Typing skill of 50 WPM or completion of OIS 100 or OIS 102 (OIS 100 or OIS 102 may be concurrent).
- MT 108 Physician Office Transcription (2 - 0) 2 Cr. Hrs.**
 Introduces the student to transcription practices utilized in the physician/medical office practice/setting. The course is designed to develop transcription skills necessary to transcribe dictation regarding the services and procedures that are provided for the patient. The importance of accurate transcription will be an essential aspect for this course. The student will gain experience by transcribing office, clinic, and hospital dictation from many medical specialties.
Prerequisite: HIT 104, CIS 105, and BIOL 105.
- MT 157 Medical Transcription Seminar (1 - 0) 1 Cr. Hr.**
 This course will provide an overview of the law as it is applied to health care professionals and patients and will cover a description of a legally safe working environment. The course will describe management techniques that may be employed by the entry-level and the experienced medical transcriptionist.
Prerequisite: HIT 104 , MT 106, MT 108 and BIOL 105.
- MT 158 Medical Transcription 2 (3 - 4) 5 Cr. Hrs.**
 This course will provide medical transcription skill building opportunities to strengthen and expand medical terminology. The course will emphasize the technique of developing skill with medical transcription documents for each anatomic system. The student will use the English language and communication skills during transcription practice.
Prerequisite: HIT 104, MT 106, MT 108 and BIOL 105.
- MT 159 Medical Transcription 3 (3 - 4) 5 Cr. Hrs.**
 This course will describe and illustrate the various reports that the medical transcriptionist will be expected to transcribe. The student will use production typewriting skills in transcribing all of the commonly used medical reports. The student will be expected to format, edit and transcribe medical reports that require an advanced level of medical terminology.
Prerequisite: MT 157.



METALLURGY AND MATERIALS SCIENCE

Associate Dean: Bruce Sweet, MA
 Instructors: Associate Professor Charles Gibbons, CSIT
 Adjunct Faculty

- MET 102 Introduction to Materials Science (2 - 2) 3 Cr. Hrs.**
 A basic introduction to Materials Science using the Principles of Science to study the nature of metallic and nonmetallic materials used in most industries. Topics include atomic structure, elements, states of matter, bonding, crystallization, mechanical, chemical, and physical properties of metallic, polymeric, ceramic and composite materials.
Prerequisite: None.
- MET 114 Engineering Materials (3 - 0) 3 Cr. Hrs.**
 A course in materials applications covering ferrous and nonferrous alloys, powdered metals, ceramics and glass, rubber and polymers. Each are examined with respect to their advantages and disadvantages, methods of fabrication and joining and specific industrial applications, both current and future.
Prerequisite: MET 102.
- MET 120 Hazardous Materials Management (2 - 0) 2 Cr. Hrs.**
 This course provides instruction in the nature of hazardous materials and their interaction with the health and safety of individuals as they relate to industrial metallurgical practices. Topics include proper handling of hazardous substances, chemical, physical and biological influences on health, human response to toxins, target organ effects and regulatory controls used in hazard prevention in the laboratory and materials process workplace.
Prerequisite: None.
- MET 125 Cooperative Metallurgical Experience 1 (0 - 40) 4 Cr. Hrs.**
 Industrial or laboratory experience under the supervision of the College Coordinator, the cooperating organization and the Department of Metallurgy and Materials Science. A written report and performance appraisal will be required.
Prerequisite: MET 102 and MET 114 or consent of department.
- MET 152 Structure and Properties Laboratory (2 - 2) 3 Cr. Hrs.**
 An experience orientated course with emphasis on lab techniques and equipment required for the macro and microstructural evaluation of metals produced by industrial processes. Topics include optical systems, sectioning and polishing, mounting techniques, etching, specialized measurement technology and photo-microscopy.
Prerequisite: MET 114 (may be concurrent).
- MET 160 Composite Materials (2 - 2) 3 Cr. Hrs.**
 An introduction to plastic and composite materials used in industry. Emphasis is placed on chemical, physical and mechanical properties of thermoplastic, thermosetting plastics and matrix reinforced composites. Topics include the nature of polymeric materials, reinforcements, coatings and adhesives. Industrial forming techniques and applications are also examined.
Prerequisite: None.
- MET 211 Physical Metallurgy Structures (3 - 1) 3 Cr. Hrs.**
 An interpretative study incorporating phase equilibria, diffusion, nucleation and growth, solid state transformation, strengthening mechanisms; effects of alloying, deformation, precipitation, and recrystallization and grain growth on microstructure. Microstructural interpretation of ferrous and nonferrous metal is emphasized.
Prerequisite: MET 114.
- MET 215 Mechanical Properties of Metals (3 - 1) 3 Cr. Hrs.**
 Basic elastic and plastic behavior, deformation, dislocations; brittle, ductile and transitional fractures; fatigue, tensile, hardness, impact and stress testing. A review of industry methods and testing standards. Mechanical forming processes used in the industry including rolling, forging, drawing and other forming techniques will be introduced.
Prerequisite: MET 114.
- MET 217 Computer Applications for Materials Science (2 - 2) 3 Cr. Hrs.**
 An experience-oriented course in data acquisition, specifically designed for students interested in materials laboratory computer applications. Topics include an introduction to materials laboratory computer systems, data acquisition, test system integration, hardware-software options, electronic fundamentals, international data bases, image processing, graphics, computerized processing and control, and the fundamentals of basic programming in materials science.
Prerequisite: MET 114 or consent of department and computer experience highly recommended.
- MET 248 Electron Microscopy and Image Analysis (2 - 2) 4 Cr. Hrs.**
 This course introduces the fundamentals of Scanning Electron Microscopy (SEM) and quantitative Image Analysis (IA) currently used in support of effective materials, characterization, and evaluations. Topics include microscopy systems and components, applications in fractography and quantifiable measurements used in process and surface failure analysis, materials characterization, and product development studies. Recommended for students specifically interested in specialized laboratory practices.
Prerequisite: MET 152, MET 211, and MET 217 or consent of department.
- MET 271 Corrosion and Corrosion Analysis (2 - 2) 4 Cr. Hrs.**
 Corrosive processes, including electrochemical reactions in metals and the chemical degradation of polymeric materials are emphasized. Topics include basic electrochemical reactions, nature of corrosive environments, types of corrosion, laboratory corrosion testing, data analysis, interaction with mechanical behavior and fabricated dissimilar materials.
Prerequisite: MET 102, MET 114 or consent of department.
- MET 280 Special Problems in Materials Science (3 - 2) 4 Cr. Hrs.**
 Students having adequate backgrounds in this discipline and/or catalog specified prerequisites are encouraged to select a topic associated with metallic or nonmetallic materials, related processing, new developments or analytical techniques, and conduct investigations to identify problems, analyze data and make decisions. The results of such evaluations will be presented and reported in a systematic, critical scientific format. Scientific methods including literature search, laboratory evaluations and experimentation are encouraged. Likewise, faculty directed study will be provided.
Prerequisite: MET 215 or MET 211 or consent of instructor.

MUSIC

Interim Assistant Dean: Cheryl D. Hawkins, MS

Instructors: Professor Donald Morelock, MM
Associate Professor James Nissen, DMA
Assistant Barton Polot, PhD
Adjunct Faculty

The Music curriculum is designed to provide opportunities for professional development as well as an outlet for previously acquired performance skills. Courses in Music Theory and History provide a stylistic framework from which students can gain an understanding and appreciation of the art form. Applied Music courses give students direct contact with artists/teachers who help them achieve technical competence on their instruments or with their voices. A variety of musical ensembles afford regular performance opportunities. Performance ensembles are open to all students with appropriate musical background. An elaborate electronic Musical Instrument Digital Interface (MIDI) lab and a digital keyboard lab assist in the teaching of computer music applications and piano classes. A Recording Technology Associate Degree, Recording Technology Certificate, Piano Certificate Program, an Intermediate Music Certificate and a Music Foundations Certificate are also offered within the curriculum and can be completed in two years or less. Applied Music courses may have added fees.

Music Theory Classes	Applied and/or Performing Music Classes			
104	113	132	213	232
137	117	133	217	233
138	118	134	218	234
153	119	135	220	235
154	124	136	224	236
228	127	141	227	241
250	131	142	231	242
252	282	283	284	285
	286	287	288	289
	290	291	292	293

MUSIC 102 Music on the PC (3 - 0) 3 Cr. Hrs.

This course will offer a unique approach to the understanding and appreciation of music through projects that involve making music with the assistance of a computer. The course may be taken by students who have little or no experience with a musical instrument or by the advanced musician as well.

Prerequisite: None.

MUSIC 104 Basic Materials in Music Theory (3 - 0) 3 Cr. Hrs.

A step-by-step approach to the fundamentals of music which includes notation, scales, intervals and triads. Not recommended for music majors with music theory background.

Prerequisite: None.

MUSIC 105 Music Appreciation (3 - 0) 3 Cr. Hrs.

An introduction to music, designed especially to increase understanding and enjoyment of music through intelligent listening. No technical knowledge required. Outside listening and attendance at live performances are required.

Prerequisite: None.

MUSIC 107 Music for Elementary Teachers (3 - 2) 4 Cr. Hrs.

Provides functional knowledge and skills to handle music requirements in the elementary grades. Recommended for elementary education majors. Required off-campus classroom visitations.

Prerequisite: None.

MUSIC 109 The Architecture of Music (3 - 0) 3 Cr. Hrs.

This course serves as an introduction to the major forms of Western music. The course will cover the major musical styles from the Baroque through the 20th century. Representative masterpieces from each period will be studied. The course serves to facilitate the transition from the introductory music appreciation course to the music history sequence through the development of critical listening and analytical skills.

Prerequisite: None.

MUSIC 114 Voice Class 1 Elements—Beginners (2 - 0) 2 Cr. Hrs.

A voice class for young or beginning singers, or for singers wishing to refresh their focus on the elements upon which the cultivation of the singing voice is built.

Prerequisite: None.

MUSIC 116 Voice Class 2 Cultivation—Intermediate (2 - 0) 2 Cr. Hrs.

A voice class for singers of intermediate level or for singers wishing to refresh their understanding of the study and cultivation of the singing voice.

Prerequisite: Consent of instructor.

MUSIC 117 Choir (2 - 1) 2 Cr. Hrs. Each

Principles of choral singing and musicianship. Music of all styles and periods. Choir is an elective for all students, regardless of major field.

Prerequisite: Audition.

MUSIC 121 Class Piano 1 (2 - 0) 2 Cr. Hrs.

Group piano instruction designed for students with little or no formal piano training. Instruction is given on both electronic and acoustic instruments.

Corequisite: MUSIC 153.

MUSIC 122 Class Piano 2 (2 - 0) 2 Cr. Hrs.

Group piano instruction designed for students with little or no formal piano training. Instruction is given on both electronic and acoustic instruments. A continuation of MUSIC 121.

Prerequisite: Completion of MUSIC 121 or equivalent.

MUSIC 123 Keyboard Skills for Recording Engineers (1 - 0) 1 Cr. Hr.

Students will apply knowledge gained in MUSIC 121 to use with electronic keyboard instruments used in the modern recording studio. These skills will be applied to individual projects in the laboratory.

Prerequisite: MUSIC 121.

MUSIC 124 Chamber Singers (1 - 1) 1 Cr. Hr. Each

A select ensemble that performs madrigals and other chamber music for events on and off campus. Open to all students regardless of major.

Prerequisite: Audition.

MUSIC 130 Ear Training for Recording Engineers (2 - 0) 2 Cr. Hrs.

Listening skills particular to the recording engineer are developed through demonstration and ear training exercises. These skills include hearing and discriminating frequencies, levels, processing, phase, distortion, and equalization. Application of these skills to different styles of music is also included.

Prerequisite: None.

MUSIC 131 Applied Music—Piano (1 - 1) 2 Cr. Hrs.

Private instruction in piano; six hours minimum weekly practice required; one private lesson and one studio class each week; performance examinations held at the end of each semester. For music and non-music majors.

Prerequisite: None.

MUSIC 132 Applied Music—Piano (1 - 1) 2 Cr. Hrs.

Private instruction in piano: six hours minimum weekly practice required; one private lesson and one studio class each week; performance examinations held at the end of each semester. For music and non-music majors.

Prerequisite: MUSIC 131.

- MUSIC 133 Applied Music—Voice (1 - 1) 2 Cr. Hrs.**
Private instruction in voice; six hours minimum weekly practice required; one private lesson each week plus weekly symposium; performance examinations held at the end of each semester. Performance opportunities at weekly symposium. For music and non-music majors.
Prerequisite: None.
- MUSIC 134 Applied Music—Voice (1 - 1) 2 Cr. Hrs.**
Private instruction in voice; six hours minimum weekly practice required; one private lesson each week plus weekly symposium; performance examinations held at the end of each semester. Performance opportunities at weekly symposium. For music and non-music majors.
Prerequisite: MUSIC 133.
- MUSIC 135 Applied Music—Instrumental (1 - 1) 2 Cr. Hrs.**
Private instruction in all instruments of the band and orchestra including classical guitar; six hours minimum weekly practice required; one private lesson each week plus weekly symposium; performance examinations held at the end of each semester. Performance opportunities at weekly symposium. For music and non-music majors.
Prerequisite: None.
- MUSIC 136 Applied Music—Instrumental (1 - 1) 2 Cr. Hrs.**
Private instruction in all instruments of the band and orchestra including classical guitar; six hours minimum weekly practice required; one private lesson each week plus weekly symposium; performance examinations held at the end of each semester. Performance opportunities at weekly symposium. For music and non-music majors.
Prerequisite: MUSIC 135.
- MUSIC 137 Sight Singing and Ear Training 1 (2 - 0) 2 Cr. Hrs.**
Sight singing—melodies outlining the intervals of I and V chords of first and second inversion and non-harmonic tones. Simple rhythmic, melodic, and harmonic dictations.
Corequisite: None.
- MUSIC 138 Sight Singing and Ear Training 2 (2 - 0) 2 Cr. Hrs.**
Sight singing—melodies outlining intervals of all triads and dominant seventh chords. Harmonic, melodic, rhythmic dictation; altered non-harmonic tones, secondary dominants, modulation to closely related keys. Borrowed and altered harmonies.
Corequisite: None.
- MUSIC 140 Jazz Lab Band—Improvisation 1 (2 - 1) 2 Cr. Hrs.**
This group is geared to the less experienced jazz player, performing contemporary jazz music in the big band setting, but with some emphasis on improvisation. The lab band will perform at concerts during the school year. The class is open to all students, high school and college, and members of the community. An audition at the beginning of each semester is required. May be used as an elective credit in humanities.
Prerequisite: None.
- MUSIC 141 Wind Ensemble 1 (2 - 1) 2 Cr. Hrs.**
The Schoolcraft Wind Ensemble is one of the most visible and sought-after organizations on campus. This community instrumental ensemble (wind, brass, and percussion only) is open to all student musicians. The Wind Ensemble performs approximately six concerts a year, and also performs at all college commencements. All musically talented students are invited to participate regardless of their field. An audition at the beginning of each semester is required. May be used as an elective credit in humanities.
Prerequisite: None.
- MUSIC 142 Jazz Band 1 (2 - 1) 2 Cr. Hrs.**
This group is known throughout the Detroit Area for its performances at the Michigan Jazz Festival and the Ford Detroit International Jazz Festival at Hart Plaza. The band also has four concerts during the school year, including an invitational Community College Jazz Festival and performs at local malls in the community. All aspiring jazz performers ages 16 through 80+ are invited to participate. An audition at the beginning of each semester is required. May be used as elective credit in humanities.
Prerequisite: None.
- MUSIC 143 Practice Teaching and Practicum in Piano Teaching 1 (1 - 1) 2 Cr. Hrs.**
Piano teachers will learn to create and present effective lesson plans that include repertoire, theory concepts, rhythm, tone, touch, and hand position through the first semester of piano study.
Prerequisite: Consent of Director of Piano Department.
- MUSIC 144 Practice Teaching and Practicum in Piano Teaching 2 (1 - 1) 2 Cr. Hrs.**
Piano teachers will learn to create and present effective lesson plans that include repertoire, theory concepts, rhythm, tone, touch, and hand position through the first semester of piano study.
Prerequisite: Successful completion of MUSIC 143.
- MUSIC 149 Popular Music Culture in America (3 - 0) 3 Cr. Hrs.**
This course serves as an introduction to some of the great works of popular music in the United States, from the songs of colonial America to the present. The course will cover the major periods/styles in popular American music history, including but not limited to music of the westward movement, ragtime and blues, the roots and growth of jazz, country music, folk music, music of Broadway, and Tin Pan Alley, the roots and development of rock music and late 20th century developments in popular music, as well as historical, political and sociological background of the United States as pertinent to music history. A background in music is not required.
Prerequisite: None.
- MUSIC 153 Music Theory (3 - 0) 3 Cr. Hrs.**
Harmonic progression; chords of 1st and 2nd inversion. Phrase structure and cadences. Technique of harmonization; non-harmonic tones.
Corequisite: MUSIC 137.
- MUSIC 154 Music Theory (3 - 0) 3 Cr. Hrs.**
Introduction to 7th chords, altered non-harmonic tones, secondary dominants, modulation to closely related keys, borrowed and altered chords; original composition.
Prerequisite: MUSIC 153.
Corequisite: MUSIC 138.
- MUSIC 155 Music of Broadway (3 - 0) 3 Cr. Hrs.**
This course will look at the history and development of the Broadway musical, from its roots in early American musical entertainment and classical European opera, its heyday in the post-modern era, and its evolution in the late 20th century as a result of the music publishing and recording industry. In addition, the course will take an in-depth look at the music and structure of several Broadway masterpieces and how they affected and were affected by American popular culture.
Prerequisite: None.
- MUSIC 164 Music History 1 (3 - 0) 3 Cr. Hrs.**
Detailed survey of literature, history and musical materials of the Baroque and Classical eras.
Prerequisite: None.

- MUSIC 165 Music History 2 (3 - 0) 3 Cr. Hrs.**
Detailed survey of history and literature of music of the Romantic and 20th century eras.
Prerequisite: None.
- MUSIC 171 Music Technology 1 (3 - 0) 3 Cr. Hrs.**
Introduction to the fundamentals of MIDI/computer hardware and software. This course will examine the basic functions of the keyboard controller, synthesizer, sound modules, line mixer, effects unit, and computer interface through hands-on experience and experimentation. The course will also introduce the student to current software applications that emphasize music performance and composition with the assistance of MIDI hardware and a microcomputer.
Corequisite: MUSIC 104, MUSIC 121 or equivalent.
- MUSIC 172 Electronic Music—Intermediate MIDI/Sampling and Sound Editing (3 - 0) 3 Cr. Hrs.**
This course will deal with advanced functions of MIDI sequencing and notation. It will also introduce the student to sound sampling and editing with the assistance of MIDI hardware and a microcomputer.
Prerequisite: MUSIC 171.
- MUSIC 173 Basic Studio Techniques 1 (3 - 0) 3 Cr. Hrs.**
Fundamentals of the recording arts, including basic audio and acoustical theory, recording consoles, tape recorders, microphone design and technique, speakers, and signal processing.
Prerequisite: None.
- MUSIC 174 Basic Studio Techniques 2 (3 - 0) 3 Cr. Hrs.**
Multitrack studio production techniques are developed through class discussion, demonstration, and project assignments. Theory of digital audio technology and its integration into music production is emphasized.
Prerequisite: MUSIC 173.
- MUSIC 201 Keyboard Skills for Piano Teachers 1 (2 - 0) 2 Cr. Hrs.**
This course is designed to give piano teachers the necessary keyboard skills for teaching beginning through early intermediate level students. It will cover technical exercises, harmonization, transposition, and sight-reading material using the standards of the Michigan Music Teacher's Association, the National Piano Guild, and other recognized testing organizations.
Prerequisite: Consent of Director of Piano Department.
- MUSIC 202 Keyboard Skills for Piano Teachers 2 (2 - 0) 2 Cr. Hrs.**
This course is designed to give piano teachers the necessary keyboard skills for teaching intermediate through late intermediate level students. It will cover technical exercises, harmonization, transposition, and sight-reading material using the standards of the Michigan Music Teacher's Association, the National Piano Guild, and other recognized testing organizations.
Prerequisite: Successful completion of MUSIC 201.
- MUSIC 214 Voice Class 3 Performance—Advanced (2 - 0) 2 Cr. Hr.**
A voice class for singers preparing for a career in singing, or for advanced singers wishing to learn the art of performance before an audience.
Prerequisite: Consent of Instructor.
- MUSIC 216 Voice Class 4 Performance—Advanced (2 - 0) 2 Cr. Hrs.**
A voice class for singers preparing for a career in singing, or for advanced singers wishing to learn the art of performance before an audience.
Prerequisite: Consent of Instructor.
- MUSIC 217 Choir (2 - 1) 2 Cr. Hrs. Each**
- MUSIC 218** Principles of choral singing and musicianship. Music of all styles and periods. Choir is an elective for all students, regardless of major field.
Prerequisite: Audition.
- MUSIC 224 Chamber Singers (1 - 1) 1 Cr. Hr. Each**
- MUSIC 227** A select ensemble that performs madrigals and other chamber music for events on and off campus. Open to all students regardless of major field.
Prerequisite: Audition.
- MUSIC 228 Sight Singing and Ear Training 3 (0 - 1) 1 Cr. Hr.**
Sight singing—melodies in all clefs outlining intervals of all triads, ninths, elevenths, thirteenth, melodic chromaticism. Harmonic, melodic, rhythmic dictation—chromatic mediant, modulation to foreign keys.
Prerequisite: MUSIC 138.
Corequisite: MUSIC 250.
- MUSIC 231 Applied Music—Piano (1 - 1) 2 Cr. Hrs.**
Private instruction in piano; six hours minimum weekly practice required; one private lesson and one studio class each week; performance examination held at the end of each semester.
Prerequisite: MUSIC 132.
- MUSIC 232 Applied Music—Piano (1 - 1) 2 Cr. Hrs.**
Private instruction in piano; six hours minimum weekly practice required; one private lesson and one studio class each week; performance examination held at the end of each semester. For music and non-music majors.
Prerequisite: MUSIC 231.
- MUSIC 233 Applied Music—Voice (1 - 1) 2 Cr. Hrs.**
Private instruction in voice, six hours minimum weekly practice required; one private lesson each week plus weekly symposium; performance examinations held at the end of each semester. Performance opportunities at weekly symposium. For music and non-music majors.
Prerequisite: MUSIC 134.
- MUSIC 234 Applied Music—Voice (1 - 1) 2 Cr. Hrs.**
Private instruction in voice, six hours minimum weekly practice required; one private lesson each week plus weekly symposium; performance examinations held at the end of each semester. Performance opportunities at weekly symposium. For music and non-music majors.
Prerequisite: MUSIC 233.
- MUSIC 235 Applied Music—Instrumental (1 - 1) 2 Cr. Hrs.**
Private instruction in all instruments of the band and orchestra; six hours minimum weekly practice required; one private lesson each week plus weekly symposium; performance examinations held at the end of each semester. Performance opportunities at weekly symposium. For music and non-music majors.
Prerequisite: MUSIC 136.
- MUSIC 236 Applied Music—Instrumental (1 - 1) 2 Cr. Hrs.**
Private instruction in all instruments of the band and orchestra, including classical guitar; six hours minimum weekly practice required; one private lesson each week plus weekly symposium; performance examinations held at the end of each semester. Performance opportunities at weekly symposium. For music and non-music majors.
Prerequisite: MUSIC 235.
- MUSIC 240 Jazz Lab Band—Improvisation 2 (2 - 1) 2 Cr. Hrs.**
This group is geared to the less experienced jazz player, performing contemporary jazz music in the big band setting, but with some emphasis on improvisation. The lab band will perform at concerts during the school year. The class is open to all students, high school and college, and members of the community. An audition at the beginning of each semester is required. May be used as an elective credit in humanities.
Prerequisite: None.

MUSIC 241 Wind Ensemble 2 (2 - 1) 2 Cr. Hrs.

The Schoolcraft Wind Ensemble is one of the most visible and sought-after organizations on campus. This community instrumental ensemble (wind, brass, and percussion only) is open to all student musicians. The Wind Ensemble performs approximately six concerts a year, and also performs at all college commencements. All musically talented students are invited to participate regardless of their field. An audition at the beginning of each semester is required. May be used as an elective credit in humanities.

Prerequisite: None.

MUSIC 242 Jazz Band 2 (2 - 1) 2 Cr. Hrs.

This group is known throughout the Detroit area for its performances at the Michigan Jazz Festival and the Ford Detroit International Jazz Festival at Hart Plaza. The band also has four concerts during the school year, including an invitational Community College Jazz Festival and performs at local malls in the community. All aspiring jazz performers ages 16 through 80+ are invited to participate. An audition at the beginning of each semester is required. May be used as an elective credit in humanities.

Prerequisite: None.

MUSIC 243 Practice Teaching and Practicum in Piano Teaching 3 (1 - 1) 2 Cr. Hrs.

Piano teachers will learn to create and present effective lesson plans that include repertoire, theory concepts, rhythm, tone, touch, and hand position through the third semester of piano study.

Prerequisite: Successful completion of MUSIC 144.

MUSIC 244 Practice Teaching and Practicum in Piano Teaching 4 (1 - 1) 2 Cr. Hrs.

Piano teachers will learn to create and present effective lesson plans that include repertoire, theory concepts, rhythm, tone, touch, and hand position through the fourth semester of piano study.

Prerequisite: Successful completion of MUSIC 243.

MUSIC 245 Wind Ensemble 3 (2 - 1) 2 Cr. Hrs.

The Schoolcraft Wind Ensemble is one of the most visible and sought-after organizations on campus. This community instrumental ensemble (wind, brass, and percussion only) is open to all student musicians. The Wind Ensemble performs approximately six concerts a year, and also performs at all college commencements. All musically talented students are invited to participate regardless of their field. An audition at the beginning of each semester is required. May be used as an elective credit in humanities.

Prerequisite: None.

MUSIC 246 Wind Ensemble 4 (2 - 1) 2 Cr. Hrs.

The Schoolcraft Wind Ensemble is one of the most visible and sought-after organizations on campus. This community instrumental ensemble (wind, brass, and percussion only) is open to all student musicians. The Wind Ensemble performs approximately six concerts a year, and also performs at all college commencements. All musically talented students are invited to participate regardless of their field. An audition at the beginning of each semester is required. May be used as an elective credit in humanities.

Prerequisite: None.

MUSIC 247 Piano Teaching Techniques and Materials 1 (3 - 0) 3 Cr. Hrs.

Designed for teachers enrolled in the Piano Teaching Program.

Prerequisite: Consent of Director of Piano Department.

MUSIC 248 Jazz Band 3 (2 - 1) 2 Cr. Hrs.

This group is known throughout the Detroit Area for its performances at the Michigan Jazz Festival and the Ford Detroit International Jazz Festival at Hart Plaza. The band also has four concerts during the school year, including an invitational Community College Jazz Festival and performs at local malls in the community. All aspiring jazz performers ages 16 through 80+ are invited to participate. An audition at the beginning of each semester is required. May be used as elective credit in humanities.

Prerequisite: None.

MUSIC 249 Jazz Band 4 (2 - 1) 2 Cr. Hrs.

This group is known throughout the Detroit Area for its performances at the Michigan Jazz Festival and the Ford Detroit International Jazz Festival at Hart Plaza. The band also has four concerts during the school year, including an invitational Community College Jazz Festival and performs at local malls in the community. All aspiring jazz performers ages 16 through 80+ are invited to participate. An audition at the beginning of each semester is required. May be used as elective credit in humanities.

Prerequisite: None.

MUSIC 250 Music Theory (3 - 0) 3 Cr. Hrs.

Chromatic mediant modulation to foreign keys. Ninth, 11th, and 13th chords. Analysis; original compositions in basic homophonic forms and traditional harmony.

Prerequisite: MUSIC 154.

MUSIC 252 Music Theory (4 - 0) 4 Cr. Hrs.

Eighteenth century counterpoint—study, analysis and composition of two-voice invention and three-voice fugue; 20th century forms and harmonic tendencies—study, analysis and composition of quartal harmony piece, and work using the 12-tone system.

Prerequisite: MUSIC 250.

MUSIC 257 Piano Teaching Techniques and Materials 2 (3 - 0) 3 Cr. Hrs.

Designed for teachers enrolled in the Piano Teaching Program.

Prerequisite: Consent of Director of Piano Department.

MUSIC 258 Jazz Lab Band—Improvisation 3 (2 - 1) 2 Cr. Hrs.

This group is geared to the less experienced jazz player, performing contemporary jazz music in the big band setting, but with some emphasis on improvisation. The Lab Band will perform at concerts during the school year. The class is open to all students, high school and college, and members of the community. An audition at the beginning of each semester is required. May be used as an elective credit in humanities.

Prerequisite: None.

MUSIC 259 Jazz Lab Band—Improvisation 4 (2 - 1) 2 Cr. Hrs.

This group is geared to the less experienced jazz player, performing contemporary jazz music in the big band setting, but with some emphasis on improvisation. The Lab Band will perform at concerts during the school year. The class is open to all students, high school and college, and members of the community. An audition at the beginning of each semester is required. May be used as an elective credit in humanities.

Prerequisite: None.

MUSIC 273 Advanced Studio Techniques 1 (3 - 0) 3 Cr. Hrs.

A comprehensive examination of the principles and applications of digital audio in today's recording and interactive media industries. Computer based recording and editing is emphasized along with musical instrument digital interface (MIDI) technology.

Prerequisite: MUSIC 130 and MUSIC 174.

- MUSIC 274 Advanced Studio Techniques 2 (3 - 0) 3 Cr. Hrs.**
A continuation of recording in the digital domain. Areas of focus will include data storage, analog to digital conversion, editing, time code, and synchronization.
Corequisite: MUSIC 273.
- MUSIC 282 Applied Music—Piano (1 - 1) 2 Cr. Hrs.**
Private instruction in piano; six hours minimum weekly practice required; one private lesson and one studio class each week; performance examinations held at the end of each semester. For music and non-music majors.
Prerequisite: MUSIC 232.
- MUSIC 283 Applied Music—Piano (1 - 1) 2 Cr. Hrs.**
Private instruction in piano; six hours minimum weekly practice required; one private lesson and one studio class each week; performance examinations held at the end of each semester. For music and non-music majors.
Prerequisite: MUSIC 282.
- MUSIC 284 Applied Music—Piano (1 - 1) 2 Cr. Hrs.**
Private instruction in piano; six hours minimum weekly practice required; one private lesson and one studio class each week; performance examinations held at the end of each semester. For music and non-music majors.
Prerequisite: MUSIC 283.
- MUSIC 285 Applied Music—Piano (1 - 1) 2 Cr. Hrs.**
Private instruction in piano; six hours minimum weekly practice required; one private lesson and one studio class each week; performance examinations held at the end of each semester. For music and non-music majors.
Prerequisite: MUSIC 283.
- MUSIC 286 Applied Music—Voice (1 - 1) 2 Cr. Hrs.**
Private instruction in voice; six hours minimum weekly practice required; one private lesson each week plus weekly symposium; performance examinations held at the end of each semester. Performance opportunities at weekly symposium. For music and non-music majors.
Prerequisite: MUSIC 234.
- MUSIC 287 Applied Music—Voice (1 - 1) 2 Cr. Hrs.**
Private instruction in voice; six hours minimum weekly practice required; one private lesson each week plus weekly symposium; performance examinations held at the end of each semester. Performance opportunities at weekly symposium. For music and non-music majors.
Prerequisite: MUSIC 286.
- MUSIC 288 Applied Music—Voice (1 - 1) 2 Cr. Hrs.**
Private instruction in voice; six hours minimum weekly practice required; one private lesson each week plus weekly symposium; performance examinations held at the end of each semester. Performance opportunities at weekly symposium. For music and non-music majors.
Prerequisite: MUSIC 287.
- MUSIC 289 Applied Music—Voice (1 - 1) 2 Cr. Hrs.**
Private instruction in voice; six hours minimum weekly practice required; one private lesson each week plus weekly symposium; performance examinations held at the end of each semester. Performance opportunities at weekly symposium. For music and non-music majors.
Prerequisite: MUSIC 288.
- MUSIC 290 Applied Music—Instrumental (1 - 1) 2 Cr. Hrs.**
Private instruction in all instruments of the band and orchestra, including classical guitar; six hours minimum weekly practice required; one private lesson each week plus weekly symposium; performance examinations held at the end of each semester. Performance opportunities at weekly symposium. For music and non-music majors.
Prerequisite: MUSIC 236.
- MUSIC 291 Applied Music—Instrumental (1 - 1) 2 Cr. Hrs.**
Private instruction in all instruments of the band and orchestra, including classical guitar; six hours minimum weekly practice required; one private lesson each week plus weekly symposium; performance examinations held at the end of each semester. Performance opportunities at weekly symposium. For music and non-music majors.
Prerequisite: MUSIC 290.
- MUSIC 292 Applied Music—Instrumental (1 - 1) 2 Cr. Hrs.**
Private instruction in all instruments of the band and orchestra, including classical guitar; six hours minimum weekly practice required; one private lesson each week plus weekly symposium; performance examinations held at the end of each semester. Performance opportunities at weekly symposium. For music and non-music majors.
Prerequisite: MUSIC 291.
- MUSIC 293 Applied Music—Instrumental (1 - 1) 2 Cr. Hrs.**
Private instruction in all instruments of the band and orchestra, including classical guitar; six hours minimum weekly practice required; one private lesson each week plus weekly symposium; performance examinations held at the end of each semester. Performance opportunities at weekly symposium. For music and non-music majors.
Prerequisite: MUSIC 292.
- MUSIC 298 Special Music Projects (2 - 0) 2 Cr. Hrs. Each**
MUSIC 299 An opportunity for the talented student to explore individually, in depth, under the direction of a faculty member, a performance, composition, or research related project. This course provides an opportunity to present traditional musical events such as a recital or a concert or to learn a new technology.
Prerequisite: Dean's list status (GPA 3.5). Successful completion of MUSIC 154 and two semesters of applied voice or instrumental music. Student eligibility will be determined during interviews with the instructor.



NURSING

Associate Dean: Monica Sullivan, MS
 Coordinator/Assistant: Kathleen Fordyce, MSN
 Instructors: Associate Professor Tamara Campbell, MSN
 Associate Professor Sharon Griffin, MSN
 Associate Professor Nancy Palmer, MSN
 Associate Professor Elizabeth Quell, MSN
 Associate Professor Deborah Vendittelli, MSN
 Assistant Professor Marlynn Marroso, MSN
 Assistant Professor Cindy Sheppard, MSN
 Adjunct Faculty

The contact hours listed are based on a full 15 week semester. Nursing courses are commonly offered in a shortened semester format (i.e. 4 weeks or 7 weeks vs. 15 weeks). The number of hours per week increases when courses are offered in a shortened semester format.

- NURS 116 Fundamentals of Nursing 1 (2 - 3) 3 Cr. Hrs.**
 This course is an introduction to the theory and practice of nursing. Students will utilize critical thinking, nursing process and psychological principles as a foundation for provision of care for clients experiencing alterations in functional health patterns. The student will apply knowledge of health, nutrition, cultural diversity and gerontological concepts in assessing and diagnosing adult client's needs in a community setting. Nursing skills related to asepsis, physical assessment, mobility, hygiene, safety and skin integrity will be performed in laboratory and/or clinical settings.
Prerequisite: High school biology or BIOL 050, high school chemistry or CHEM 051, high school algebra or MATH 053, and consent of department. BIOL 236 or BIOL 237 and BIOL 238 with minimum grade of 2.5. BIOL 115 is also recommended.
- NURS 117 Fundamentals of Nursing 2 (1 - 6) 3 Cr. Hrs.**
 This course continues the study of critical thinking, nursing process and psychosocial principles for provision of care for clients experiencing alterations in functional health patterns. Nursing skills will build upon those previously learned. Skills will be practiced during supervised laboratory practice. The student will apply knowledge of health, nutrition, cultural diversity, gerontological concepts, and ethical-legal considerations to provide nursing care to adult clients in an extended care facility/community setting.
Prerequisite: NURS 116 with a grade of 2.0.
- NURS 118 Pharmacology 1 (1 - 0) 1 Cr. Hr.**
 This course introduces pharmacological concepts and major drug classifications. Drug information includes mechanism of action, drug effects, therapeutic uses, side effects, adverse effects, toxicity, drug interactions, and dosages. The nursing process will be utilized as related to drug therapy
Prerequisite: NURS 116 with a grade of 2.0.
- NURS 119 Pharmacology 2 (1 - 0) 1 Cr. Hr.**
 This course is a continuation of Pharmacology 1. Drug information includes mechanism of action, drug effects, therapeutic uses, side effects, adverse effects, toxicity, drug interactions, and dosages for selected drug classifications. The nursing process will be utilized as related to drug therapy.
Prerequisite: NURS 117 and NURS 118 with a grade of 2.0.

- NURS 120 Health Assessment and Adult Medical—Surgical Nursing 1 (2 - 6) 4 Cr. Hrs.**
 This course involves the application of critical thinking, nursing process and psychosocial principles for provision of care for adult clients experiencing alterations in functional health patterns. Health and physical assessment techniques/processes will be utilized in community and acute care settings. Skills will be demonstrated during lab/clinical activities. Theoretical content will focus on care of clients with alterations affecting the respiratory, cardiovascular, musculoskeletal and endocrine systems.
Prerequisite: NURS 117, NURS 118 with a grade of 2.0 and PSYCH 201.
- NURS 121 Adult Medical—Surgical Nursing 2 (2 - 9) 5 Cr. Hrs.**
 This course continues application of the nursing process for adult clients experiencing alterations in functional health patterns. The student will utilize critical thinking skills to apply knowledge of infection control; pathophysiology; pharmacology; diagnostic testing; nutrition; and psychosocial, spiritual, cultural, and ethical-legal principles in provision of nursing care for adult clients in a medical-surgical/community setting. Theoretical content will focus on care of clients with alterations affecting the renal, neurological, gastrointestinal, hepatic, biliary, male reproductive, and hematological systems.
Prerequisite: NURS 120 with a grade of 2.0.
- NURS 122 Psychiatric—Mental Health Nursing (2 - 6) 4 Cr. Hrs.**
 This course applies critical thinking skills, nursing process, and psychosocial principles and interventions for mental health clients in acute and community settings.
Prerequisite: For students pursuing the ADN program: NURS 121 with a grade of 2.0 and PSYCH 209. For students pursuing the LPN to ADN program option: high school biology or BIOL 050, high school chemistry or CHEM 051, high school algebra or MATH 053, BIOL 236 or BIOL 237 and 238 with a minimum grade of 2.5, and PSYCH 201 and 209.
- NURS 130 LPN to RN Transition Course (3 - 0) 3 Cr. Hrs.**
 This course is for Licensed Practical Nurses (LPNs) who are articulating to Registered Nurse (RN) status. The course will be focused on the transition of the LPN to the RN role; the health-illness continuum; biopsychosocial development and human needs; nurse-client interaction; nursing process; clinical skills and patient education.
Prerequisite: NURS 122 with a grade of 2.0.
- NURS 211 Nursing Care of Women and Childbearing Families (2 - 9) 5 Cr. Hrs.**
 This course introduces the student to the theory and practice of nursing care of women and childbearing families. Course content will include care of women and their families during the perinatal experience. Pathophysiology, diagnosis, treatment, preventative measures, and patient teaching strategies for select gynecological disorders will also be covered. Acute and community settings will be utilized for clinical experiences. The student will utilize critical thinking skills and incorporate previously learned content.
Prerequisite: For students pursuing the ADN program: NURS 119 and NURS 122 with a grade of 2.0, BIOL 243 with a minimum grade of 2.5. For students pursuing the LPN to ADN program option: NURS 130 with a minimum grade of 2.0 and consent of the department and BIOL 243 with a minimum grade of 2.5.

NURS 212 Nursing Care of Children and Families (2 - 9) 5 Cr. Hrs.

This course is designed to introduce the student to the theory and clinical practice of the acutely ill child and their family. The student will integrate previously learned nursing skills and theory in meeting the needs of acutely ill children and their families. There will also be a focus on the topic of growth and development and how the child's level of growth and development may impact their illness. The issue of growth and development will also be addressed in considering the needs of the well child and well child care. The student will be expected to demonstrate beginning skills in the management of multiple clients and their families. The student will also be expected to identify the role of the pediatric nurse when acting as an advocate for the child and/or family.

Prerequisite: For students pursuing the ADN program: NURS 119 and NURS 122 with a grade of 2.0, BIOL 243 with a minimum grade of 2.5. For students pursuing the LPN to ADN program option: NURS 130 with a minimum grade of 2.0 and consent of the department and BIOL 243 with a minimum grade of 2.5.

NURS 213 Adult Medical—Surgical Nursing 3 (2 - 9) 5 Cr. Hrs.

In this course students will utilize critical thinking, nursing process, psychosocial concepts and previously learned principles to provide care for adult clients experiencing complex alterations in functional health patterns. Advanced nursing skills will be utilized during clinical practice in acute care and community settings.

Prerequisite: For students pursuing the ADN program: NURS 119 and NURS 122 with a grade of 2.0, BIOL 243 with a minimum grade of 2.5. For students pursuing the LPN to ADN program option: NURS 130 with a minimum grade of 2.0 and BIOL 243 with a minimum grade of 2.5 and consent of the department.

NURS 214 Leadership and Nursing Management of Complex Clients (2 - 9) 5 Cr. Hrs.

This course includes advanced medical-surgical nursing content and basic principles of leadership and management. Current legal-ethical issues are included, as well as issues related to nursing practice, standards of conduct, employment, and licensure requirements. Clinical practice provides opportunities for students to be integrated as part of the health care team while providing complex care to groups of clients.

Prerequisite: NURS 211, NURS 212, and NURS 213 with a grade of 2.0 or higher.

**OFFICE INFORMATION SYSTEMS**

Associate Dean: Bruce Sweet, MA
Instructor: Professor Patricia Partyka, MEd
Adjunct Faculty

OIS 100 Keyboarding 1 (2 - 0) 2 Cr. Hrs.

Students will learn how to keyboard using the touch control method. Development of proper keyboarding techniques while building basic accuracy and speed will be emphasized.

Prerequisite: None.

OIS 102 Keyboarding 2 (2 - 0) 2 Cr. Hrs.

This course continues the development of accuracy and speed in keyboarding. Emphasis will be in formatting various kinds of business correspondence, reports and tables.

Prerequisite: OIS 100 or equivalent.

OIS 105 Office Communications and Editing Skills (3 - 0) 3 Cr. Hrs.

This course is designed to review and incorporate the principles of grammar, punctuation, vocabulary, spelling, proofreading and editing of business documents.

Prerequisite: A skill level of ENG 050 or higher on the placement test. OIS 102 strongly recommended.

OIS 165 Microsoft Word for Windows (3 - 0) 3 Cr. Hrs.

This course is designed to provide practical hands-on experience with a current word processing software package for the microcomputer. Current software will be introduced and explained with emphasis in the area of word processing.

Prerequisite: OIS 105 or equivalent.

OIS 185 Business Presentation 1—Fundamental Concepts (3 - 0) 3 Cr. Hrs.

This course will introduce students to the fundamental concepts of office presentations. Students will produce elementary presentation documents such as overheads, audience handouts and speaker notes.

Prerequisite: OIS 165 or equivalent.

OIS 195 Time and Project Management (1 - 0) 1 Cr. Hr.

This course will aid students in gaining control of their office activities by showing them how to set goals around individual values and how to use a day planner.

Prerequisite: None.

OIS 255 Office Procedures (2 - 0) 2 Cr. Hrs.

This course is designed to enhance the students' knowledge about basic secretarial skills, office reprographics, public relations, records management, telephone techniques, mailing and shipping services, meeting and conference planning, travel arrangements and written communication.

Prerequisite: OIS 100 or equivalent.

OIS 260 Office Administration (3 - 0) 3 Cr. Hrs.

The student will learn the basic principles of administrative office management, the importance of managing human resources and administrative services, as well as controlling administrative operations.

Prerequisite: OIS 255 recommended.

OIS 265 Advanced Microsoft Word for Windows (3 - 0) 3 Cr. Hrs.

This course is a continuation of OIS 165 and will focus on the advanced functions of Microsoft Word such as templates, macros, Microsoft Draw, Word Art, merge, create and format tables, charts and columns, styles, outlines, and sort and select.

Prerequisite: OIS 165.

PHILOSOPHY

Interim Assistant Dean: Cheryl D. Hawkins, MS
 Instructors: Associate Professor Robert Schaden, PhD
 Adjunct Faculty

PHIL 243 Introduction to Philosophy (3 - 0) 3 Cr. Hrs.
 Designed to familiarize the student with philosophy as a foundation for life, this course provides an introduction to questions in metaphysics, epistemology, ethics, social and political philosophy and the philosophy of religion. Classical and modern philosophers from Western, Asian, African and Native American traditions are presented. Critical thinking and an application of theory to contemporary issues are emphasized.

Prerequisite: None.

PHIL 247 Logic (4 - 0) 4 Cr. Hrs.
 This course is designed to assist the student in distinguishing between good and bad reasoning. The course will address both informal logic, which focuses on arguments in every day language and how to evaluate them, and formal logic, which focuses on symbolic language and the formal methods for determining the validity of arguments. Common logical fallacies will be outlined and attention given to validity of arguments on contemporary issues in the public forum.

Prerequisite: None.

PHIL 277 Ethical Problems (3 - 0) 3 Cr. Hrs.
 In this course the student will be introduced to a variety of ethical theories as discussed by classical and contemporary moralists. The course experience also provides for an application of these theories to modern moral questions through a process of critical thinking in discussion and in written assignment. Lecture, discussion and readings are employed to explore alternate solutions to present day moral problems.

Prerequisite: PHIL 243 or equivalent.



PHYSICAL EDUCATION, HEALTH & RECREATION

Associate Dean: Monica Sullivan, MS
 Instructors: Professor Jack Washka, MEd
 Professor Cecil Woodruff, PhD
 Adjunct Faculty

1. Students enrolled in certificate programs are encouraged, but not required, to complete one semester hour of a physical education activity credit. Students enrolled in a degree program are encouraged, but not required, to complete two semester hours of physical education activity credit. Physical education activity credits may be taken as elective credit towards an Associate Degree when applicable. See Graduation Requirements.
2. Activity classes are offered in various time blocks and have an added fee.
3. Students must register for ALL CLASSES in a given semester/session at registration time, regardless of a later starting date. See published class schedule.

PE 104 Physical Fitness and Conditioning (1 - 1) 2 Cr. Hrs.
 Stresses vigorous body conditioning through progressive exercises, stretching, weight machine and free weight use. Cardiovascular fitness will be emphasized.
Prerequisite: None.

PE 106 Beginning Swimming (1 - 1) 2 Cr. Hrs.
 For the student who has little or no skill and knowledge of swimming techniques. Fundamental instruction in the basic swimming strokes, including front crawl, back crawl, elementary back stroke, side stroke, elementary diving and water safety skills.
Prerequisite: None.

PE 115 Aerobic Dance Fitness (1 - 1) 2 Cr. Hrs.
 Instruction will stress the development of an individual's aerobic capacity and cardiovascular endurance through aerobic dance and dance exercise.
Prerequisite: None.

PE 116 Intermediate Swimming (1 - 1) 2 Cr. Hrs.
 For students who can swim two lengths of the pool, stay afloat for three minutes. Designed to increase skill and knowledge in the basic swimming strokes, including front crawl, back crawl, elementary back stroke, side stroke, breast stroke, diving and water safety skills. Some stroke variations and synchronized swimming techniques may be covered.
Prerequisite: None.

PE 121 First Aid and Personal Safety (2 - 0) 2 Cr. Hrs.
 A lecture-demonstration approach on the prevention of accidents and care of victims with emergencies skill training in all procedures. Heimlich Maneuver and CPR will be discussed. American Red Cross responding to Emergencies Certificate and Adult, Child and Infant CPR cards may be earned. Satisfies requirements of Occupational Safety and Health Act (OSHA) or Michigan Occupational Safety and Health Act (MIOSHA).
Prerequisite: None.

PE 131 Golf (1 - 1) 2 Cr. Hrs.
 This course is geared toward the beginner or advanced beginning golfer. Instruction will be given on fundamental skills, strategy, rules, practice techniques and equipment. An opportunity to play on a course with the instructor will be made available.
Prerequisite: None.

- PE 132 Beginning Tennis (1 - 1) 2 Cr. Hrs.**
Basic history of tennis, techniques, fundamental skills, strategy, rules and the opportunity to participate in a competitive situation.
Prerequisite: None.
- PE 141 Basketball (1 - 1) 2 Cr. Hrs.**
This course covers the sports' history, basic techniques, fundamental skills, strategy, rules, and the opportunity to participate in a competitive situation.
Prerequisite: None.
- PE 153 Volleyball (1 - 1) 2 Cr. Hrs.**
This course covers the sport's history, basic techniques, fundamental skills, strategy, rules, and the opportunity to participate in a competitive situation.
Prerequisite: None.
- PE 157 Paddleball/Racquetball (1 - 1) 2 Cr. Hrs.**
Instruction in rules, safety practices, etiquette, strategy and skills of paddleball and racquetball. Tournament play in singles, doubles and cut-throat is included.
Prerequisite: None.
- PE 164 Skin and Scuba Diving (1 - 2) 3 Cr. Hrs.**
Skills, techniques, safety factors, mechanics, first aid, marine life and environment, medicine and physics of diving and dive organization are stressed. Open water certification may be earned. Some advanced techniques are included. Equipment, rented or furnished, should not be obtained until after the first class meeting. Class size limited to 17 persons.
Prerequisite: Beginning Swimming or equivalent required.
- PE 166 Self-Defense (1 - 1) 2 Cr. Hrs.**
Combines various methods of self-defense with an emphasis on Judo. Related techniques of Jujitsu and Karate will be covered.
Prerequisite: None.
- PE 194 Weight Training (1 - 1) 2 Cr. Hrs.**
Various methods of weight training for both men and women are taught. Proper lifting techniques learned. The concept of "total fitness and body awareness" is stressed.
Prerequisite: None.
- PE 202 Lifestyle Fitness and Wellness (1 - 1) 2 Cr. Hrs.**
This course will introduce the student, through lecture and exercise, to the various methods and benefits of physical and emotional fitness and wellness activities. A wide variety of topics pertinent to the physical and mental health and well-being of the individual will be presented and practiced, providing the framework for the student to make sound health choices. Pre- and post-fitness assessments will be taken. Both in-class and outside of class lab projects will be undertaken.
Prerequisite: None.
- PE 240 Physical Education for Elementary Teachers (3 - 0) 3 Cr. Hrs.**
Use of basic movement, games, relays, stunts, and organization for the early and later elementary grades. Emphasis is on the organization for P.E. at these levels. Students are required to make arrangements for observation of elementary classes during the latter part of the semester.
Prerequisite: None.

PHYSICS

Associate Dean: Monica Sullivan, MS
Instructors: Professor Steve Schewe, MS
Instructor Paul Holody, PhD

- PHYS 051 Basic Physics (4 - 1) 4 Cr. Hrs.**
Mechanics, sound, heat, electricity, light and modern physics. For those students who have had no previous course in physics or need review of the subject to prepare for college physics.
Prerequisite: One year of high school algebra or MATH 053.
- PHYS 104 Introduction to Astronomy (3 - 2) 4 Cr. Hrs.**
History, methods, the solar system, stars, galaxies and cosmology. For students in any curriculum, but not for science majors.
Prerequisite: One year of high school algebra or MATH 053.
- PHYS 123 Applied Physics (4 - 2) 5 Cr. Hrs.**
A course in applied physics designed for technical, business and applied health programs. Using trigonometry, the traditional topics of mechanics, heat, acoustics, electricity and magnetism, optics, modern physics and nuclear physics are treated in a practical and applied fashion with emphasis on laboratory work and scientific procedures. (Can replace PHYS 051.)
Prerequisite: MATH 113.
- PHYS 181 General Physics (4 - 2) 4 Cr. Hrs.**
Mechanics, fluids, energy relationship, heat, and sound. Not for engineering students or physics majors.
Prerequisite: MATH 119 and one year of high school physics or PHYS 051 or PHYS 123.
- PHYS 182 General Physics (4 - 2) 4 Cr. Hrs.**
Continuation of PHYS 181. Magnetism, electricity, light and modern physics. Not for engineering students or physics majors.
Prerequisite: PHYS 181.
- PHYS 211 General Physics (5 - 2) 5 Cr. Hrs.**
Mechanics, fluids, heat and sound. For engineering students and science majors.
Prerequisite: High school physics or PHYS 051 and MATH 150.
- PHYS 212 General Physics (5 - 2) 5 Cr. Hrs.**
Continuation of PHYS 211. Magnetism, electricity, light and modern physics.
Prerequisite: A grade of 2.0 or better in PHYS 211.



POLITICAL SCIENCE

Interim Assistant Dean: Cheryl D. Hawkins, MS
 Instructors: Professor William Burke, MA
 Associate Professor Kent Kirkpatrick, MA
 Assistant Professor Alexander Thomson, MA

- POLS 105 Survey of American Government (3 - 0) 3 Cr. Hrs.**
 Survey of the American political system, including an analysis of decision makers, power and controversial issues, at the national, state and local governmental levels.
Prerequisite: None.
- POLS 109 State and Local Government (3 - 0) 3 Cr. Hrs.**
 Nature of state constitutions and powers; structure and operation of state executive, legislative and judicial branches; organization, functions and problems of local governments; state-federal and state-local relations.
Prerequisite: None.
- POLS 205 Political Parties (3 - 0) 3 Cr. Hrs.**
 Organization and functions of modern American political parties. Includes an analysis of campaigns, conventions, power and participation in politics. A campaign simulation may be used.
Prerequisite: POLS 105 or equivalent political experience or consent of instructor.
- POLS 207 Comparative Government (3 - 0) 3 Cr. Hrs.**
 The essence of politics including the scientific method and the comparative study of politics; democratic and autocratic political systems; typologies and types of variables; environmental considerations; history and political culture; structures for political participation; governmental structures and processes; system institutionalization and durability. Major western European countries will be discussed.
Prerequisite: A college course in political science or history, or consent of instructor.
- POLS 209 International Relations (3 - 0) 3 Cr. Hrs.**
 This course provides an examination of some of the social, economic and political forces which make for cooperation and conflict between nations. Emphasis will be on political economy. Areas of concentration include the Russian Revolution and the rise of the U.S.S.R., the Chinese Revolution and the emergence of China and the unfolding relationships between the third world and the industrialized nations. International economics and the international debt will be examined. Recent studies of Chile and Cuba will be presented.
Prerequisite: Sophomore standing and POLS 105. Completion of other social science courses recommended.



PRACTICAL NURSING

Associate Dean: Monica Sullivan, MS
 Coordinator/Assistant: Kathleen Fordyce, MSN
 Instructors: Assistant Professor Tamara Campbell, MSN
 Instructor Cindy Sheppard, MSN
 Adjunct Faculty

The contact hours listed are based on a full 15 week semester. The number of hours per week increases when courses are offered in a shortened semester format.

- PN 111 Fundamentals of Practical Nursing (5 - 12) 9 Cr. Hrs.**
 This course includes beginning theory and supervised practice in the fundamental skills necessary to meet the needs of the chronically and elderly ill patient. The student will learn the application of the nursing process with emphasis on assessment and implementation skills necessary to give quality patient care. The study of normal nutrition and math necessary for administration of medications is included.
Prerequisite: Consent of department.
- PN 112 Nursing Dynamics (4 - 0) 4 Cr. Hrs.**
 An introductory course in Practical Nursing provides an overview of the profession of practical nursing from a historical perspective to current regulations, practices and responsibilities. Emphasis is placed on professional interactions and the various psychosocial topics included.
Prerequisite: Consent of department.
- PN 124 Nursing Adult Patients (7 - 15) 12 Cr. Hrs.**
 This course is an introduction to the care of adult patients having medical and surgical disorders. The student will focus on the application of critical thinking and the nursing process in providing patient care. The student will also apply knowledge of nursing skills, pathophysiology, nutrition, pharmacology, diagnostic tests, communication and behavioral principles in the care of selected adult.
Prerequisite: PN 111, PN 112, AHE 101, BIOL 105 with a minimum grade of 2.0.
- PN 125 Mental Health Nursing (3 - 0) 3 Cr. Hrs.**
 The mental health system is overviewed from a brief historical perspective to current trends and practices. Common behavioral and psychiatric disorders are covered utilizing a nursing process approach. Emphasis is placed on the role of the practical nurse as a member of the psychiatric health care team.
Prerequisite: PN 111, PN 112, BIOL 105, AHE 101 with a minimum grade of 2.0.
- PN 126 Maternal and Child Nursing (2.5 - 7.5) 5 Cr. Hrs.**
 In the maternity-newborn portion of this class, the theory and clinical emphasis is on normal pregnancy, labor, delivery and postpartum. Care and assessment of the newborn is included. The pediatric portion covers normal growth and development from infant to adolescence. Emphasis is placed on care of the well and hospitalized child.
Prerequisite: PN 124 and PN 125 with a minimum grade of 2.0.
- PN 137 Advanced Concepts in Practical Nursing (1.5 - 4.5) 3 Cr. Hrs.**
 This capstone course covers advanced medical-surgical topics as well as issues related to licensure and employment. In clinical practice, emphasis is placed on functioning with greater independence in providing care to groups of patients. Students gain experience as an active member of the nursing team while working with staff personnel.
Prerequisite: PN 126 with a minimum grade of 2.0.

PSYCHOLOGY

Interim Assistant Dean: Cheryl D. Hawkins, MS

Instructors: Associate Professor Robert Schaden, PhD
Assistant Professor Colleen Pilgrim, PhD
Adjunct Faculty

PSYCH 153 Human Relations (3 - 0) 3 Cr. Hrs.

This course is designed particularly for students in the Career Curricula. The course focuses upon a better understanding of human behavior as related to interpersonal relations on the job. Foundations of human behavior, strategies for effective human relations, fundamental skills of working as a team leader and team member, and ways of anticipating, preventing, and coping with challenges of human relations are major areas of study.

Prerequisite: None.

PSYCH 201 General Psychology (4 - 0) 4 Cr. Hrs.

Principles of human thought and action with emphasis on individuals in their environment; individual differences in intelligence and personality; effects of heredity and environment on the organism; the nervous systems, learning, intelligence, perception, motivation, social relationships, feelings and emotions.

Prerequisite: Twenty-six hours of transferable credit or consent of department. Successful completion of a political science course and biology (BIOL 101) recommended.

PSYCH 205 Psychology of Adjustment (3 - 0) 3 Cr. Hrs.

Factors and processes involved in the adjustment of the individual to personal and social environment are the main focuses of this course. Essentials for the development of an effective and mentally healthy individual are emphasized. Foundations for adjustment, personal life-style adjustment, interpersonal relationships, adjustment throughout life and coping with maladjustment are major areas of study.

Prerequisite: Twenty-six hours of transferable credit or consent of department.

PSYCH 209 Child Psychology (3 - 0) 3 Cr. Hrs.

General characteristics of development, development of social behavior, feelings, emotions, language, growth of understanding and interests, with emphasis upon personality and problems of adjustment.

Prerequisite: PSYCH 201.

PSYCH 219 Psychology of Aging (3 - 0) 3 Cr. Hrs.

This course studies adult development and aging. It focuses on the developmental changes relates to biological, psychological, and social processes. Coping strategies and intervention techniques will be examined.

Prerequisite: Twenty-six hours of transferable credit or consent of department. Successful completion of PSYCH 201 highly recommended.



QUALITY MANAGEMENT

Associate Dean: Bruce Sweet, MA

Instructors: Adjunct Faculty

QM 106 Introduction to Quality Systems (3 - 0) 3 Cr. Hrs.

Introduction to quality improvement practices in business, technology and service industries including the ability to respond to signals resulting from complex system analysis. Through the enhancement of knowledge and using basic problem-solving techniques, including Cause and Effect diagrams, Pareto diagrams, Scatter diagrams, and related analytical methods, students develop a better understanding of effective problem-solving techniques applicable to manufacturing and non-manufacturing industries.

Prerequisite: None.

QM 107 Quality Planning and Team Building (3 - 0) 3 Cr. Hrs.

Planning effective quality systems including error prevention through team building to support both recommended procedures and customer satisfaction is emphasized. Students will be introduced to planning methods, Quality Function Deployment (QFD), Failure Mode and Effects Analysis (FMEA), and new quality related programs used in process/product development validation. Control plans and teamwork will be used to demonstrate the dynamics of synergism in groups.

Prerequisite: None.

QM 108 Quality Statistical Methods (3 - 0) 3 Cr. Hrs.

Analysis related to statistical process control (SPC) and other analytical techniques are directed toward defect prevention, systems improvement and customer satisfaction. Students will be introduced to statistical methods, theory and charting including X-bar and R, P, NP, C & U and their application. Topics also include process identification and capability (CpK) analysis.

Prerequisite: MATH 113.

QM 112 Facilitating Quality Systems (3 - 0) 3 Cr. Hrs.

Managing and facilitating effective quality systems requires a systematic approach to employee commitment. Topics include identifying strengths and weaknesses in current systems, establishing plans, confirming objectives, training for team effectiveness and methods of feedback analysis to support efforts in Total Quality Management.

Prerequisite: QM 108 or consent of department.



SOCIOLOGY

Interim Assistant Dean: Cheryl D. Hawkins, MS
 Instructor: Associate Professor Josselyn Moore, MA
 Adjunct Faculty

- SOC 201 Principles of Sociology (3 - 0) 3 Cr. Hrs.**
 A survey of the major theoretical perspectives, concepts, and methods of sociology. Topics include social organization, culture, socialization, stratification systems, social institutions and social change.
Prerequisite: None.
- SOC 205 Social Problems (3 - 0) 3 Cr. Hrs.**
 Consideration of current social problems, such as family stability, racism, sexism, poverty, crime, urbanization, and ecological problems using sociological theory and recent empirical studies. Analysis of sociocultural factors underlying these problems and possible solutions.
Prerequisite: SOC 201.
- SOC 209 Marriage and Family (3 - 0) 3 Cr. Hrs.**
 A study of the impact that changes in society have had on gender roles, sexual relationships, marriage, and family life. Considers diversity in family patterns, norms, and values. Topics include gender roles, sexual behavior, mate selection, problems of marital adjustment, family stability and crisis, divorce and parenting.
Prerequisite: None.
- SOC 210 Cultural Diversity (3 - 0) 3 Cr. Hrs.**
 An analysis of racial and ethnic diversity in the U.S. in relation to evolving social, economic and cultural factors. Various American minority cultures are studied with an emphasis on education, politics, religion and the resulting cultural effects. Sociological and psychological concepts and theories will be explored. The impact of the current wave of immigrants to the U.S. will be discussed and the incidents of hate crimes will be explored.
Prerequisite: None.
- SOC 220 Urban Sociology (3 - 0) 3 Cr. Hrs.**
 A survey of the origin and development of cities and the processes of urbanization. A discussion of the ecology and social organization of urban life. The special problems and realities of urban society will be covered as well as perspectives for the future.
Prerequisite: SOC 201 or ANTH 112 recommended.
- SOC 290 The Individual and Community—An Honors Capstone Course (3 - 0) 3 Cr. Hrs.**
 A required conclusion to the Schoolcraft Scholars honors program, this capstone course examines individual, social, structural, and social institutional relationships through multiple disciplines. Students will identify and analyze social and cultural trends and issues. During the course, students will complete and present results of service-learning projects.
Prerequisite: HUM 190.



SPANISH

Interim Assistant Dean: Cheryl D. Hawkins, MS
 Instructor: Assistant Professor Andrea Nofz, MA
 Adjunct Faculty

- SPAN 101 Elementary Spanish 1 (4 - 0) 4 Cr. Hrs.**
 Fundamentals of pronunciation, basic grammar structure and essential vocabulary; particular emphasis placed on speaking and understanding Spanish; practice in written Spanish given by means of dictation and easy translation.
Prerequisite: None.
- SPAN 102 Elementary Spanish 2 (4 - 0) 4 Cr. Hrs.**
 Continuation of SPAN 101. Continued emphasis on the spoken language and reading of graded materials in Spanish for comprehension without translation; extensive use of Spanish in the classroom.
Prerequisite: One year of high school Spanish or a grade of 2.0 or better in SPAN 101 or consent of instructor.
- SPAN 201 Intermediate Spanish 1 (4 - 0) 4 Cr. Hrs.**
 Continuation of SPAN 102. Review and application of essential principles of Spanish grammar structure and training in idiomatic usage through oral and written exercises; intensive practice of the spoken language; reading of representative Spanish prose for comprehension; development of ability to read rapidly without translation.
Prerequisite: Two years of high school Spanish or a grade of 2.0 or better in SPAN 102 or consent of instructor.
- SPAN 202 Intermediate Spanish 2 (4 - 0) 4 Cr. Hrs.**
 Continuation of SPAN 201. Emphasis on oral skill, conversation, and reading without translation.
Prerequisite: Three years of high school Spanish or a grade of 2.0 or better in SPAN 201 or consent of instructor.

THEATRE

Interim Assistant Dean: Cheryl D. Hawkins, MS
 Instructor: Professor James R. Hartman, EdM

Schoolcraft College offers opportunities for students who wish to study drama and perform in the theatre program. Enrollment in classes is open to majors and minors and to any student with a sincere interest in theatre. Students enrolled in the theatre transfer program are able to earn 24 credit hours during a two-year period with all credits transferable to a four-year institution; an example of such a program appears in the program area of the catalog.

Schoolcraft College now grants an academic Theatre scholarship to a current Theatre major.

Since September 1977, the Theatre Department has adopted a dinner-theatre format for production and provides an exciting experience in this popular kind of entertainment; usually two-three plays are produced annually.

- THEA 101 Introduction to Theatre (3 - 0) 3 Cr. Hrs.**
 A survey course which examines all the elements of theatre: actor, director, playwright, scenery, costumes, makeup, lighting, sound, audience, theatre publicity, theatre management, and critic.
Prerequisite: None.
- THEA 120 Theatre Activities (1 - 0) 1 Cr. Hr.**
 Brief introduction to theatre activities, including primarily technical and dramatic production with minimum hours spent working on or in the current production.
Prerequisite: None.

- THEA 121 Theatre Activities (1 - 0) 1 Cr. Hr.**
Continuation of THEA 120.
Prerequisite: THEA 120.
- THEA 204 Stage Makeup (2 - 0) 2 Cr. Hrs.**
An introductory course in stage makeup application. The course covers basic makeup, character makeup, old-age makeup, and special effects. Discussion on types of makeup and practical student application projects.
Prerequisite: None.
- THEA 207 Stagecraft and Lighting (3 - 0) 3 Cr. Hrs.**
Technical aspects of play production, including principles of scene design, set construction, painting, lighting, sound, costuming and makeup.
Prerequisite: None.
- THEA 208 Acting 1 (3 - 0) 3 Cr. Hrs.**
A beginning course preparing the actor for acting. Training in voice and body development that not only is applicable to the stage, but to daily life. Exercise work in concentration, relaxation, awareness, sensitivity and body alignment. This exercise work is applied to scene work from modern drama.
Prerequisite: None.
- THEA 209 Acting 2 (3 - 0) 3 Cr. Hrs.**
An advanced course in the preparation of an actor for acting. Training in voice and body development, with an emphasis on studying and applying the Stanislavski Method and the Alexander Technique of body alignment. Presentation of scenes from classical and modern plays.
Prerequisite: THEA 208.
- THEA 220 Theatre Activities (1 - 0) 1 Cr. Hr.**
Continuation of THEA 121.
Prerequisite: THEA 121.
- THEA 221 Theatre Activities (1 - 0) 1 Cr. Hr.**
Continuation of THEA 220.
Prerequisite: THEA 220.
- THEA 231 History of Theatre 1 (3 - 0) 3 Cr. Hrs.**
The development of dramatic art and practice from ancient times to the end of the 18th century, stressing the evolution of the physical theatre and dramatic forms in relation to contemporaneous production facilities and innovations.
Prerequisite: None.
- THEA 232 History of Theatre 2 (3 - 0) 3 Cr. Hrs.**
The development of dramatic art and practice from the beginning of the 19th century to the present, stressing the evolution of the physical theatre and dramatic forms in relation to contemporaneous production facilities and innovations.
Prerequisite: None.
- THEA 241 Oral Interpretation of Literature (3 - 0) 3 Cr. Hrs.**
This course is designed to give the student an understanding of Oral Interpretation of Literature through a twofold technique: one, by practical experience in interpretive readings in various types of literature, and two, by the study of techniques used in the textbook. The class emphasizes the performance of literature through the use of the voice and body.
Prerequisite: THEA 208 or COMA 103.

WELDING

Associate Dean: Bruce Sweet, MA
Instructor: Instructor Rodney Johnson, CWE/CAWI
Adjunct Faculty

- WELD 108 Shop Mathematics (2 - 0) 2 Cr. Hrs.**
A basic course in arithmetic which reviews or develops basic concepts in numbers and their usage. Whole numbers, fractions, and decimals are used in addition, subtraction, multiplication, and division of practical industrial shop problems. Metric conversions, square roots, squares, usage of math tables and hand calculators are also introduced.
Prerequisite: None.
- WELD 109 Algebra (2 - 0) 2 Cr. Hrs.**
This course addresses the concepts of addition, subtraction, multiplication, and division of algebraic expressions; the treatment of signs, exponents, and roots; factoring, formulas, equations, solving for unknowns and quadratic equations. Solving ratios, proportions, percentages, and algebraic fractions are also included.
Prerequisite: WELD 108 or equivalent.
- WELD 113 Shielded Metallic Arc Welding (S.M.A.W.) (2 - 2) 3 Cr. Hrs.**
Theory and fundamentals of oxy/fuel cutting, welding, soldering, brazing, resistance and shielded metallic arc welding, joining and fabricating, and welding metallurgy. Emphasis on basic welding skills and welding metallurgy and the establishment of sound work habits. Designed to provide the foundation for more advanced courses.
Prerequisite: None.
- WELD 115 Gas Metallic Arc Welding (G.M.A.W./M.I.G.) (2 - 2) 3 Cr. Hrs.**
Theory and fundamentals of gas metallic arc welding, commonly referred to as M.I.G. This method of fusion of metals is widely used and is the fastest growing segment of the metalworking industry. Emphasis on skill development and the establishment of sound work habits. Designed to provide entry level employability and a solid foundation for more advanced courses.
Prerequisite: WELD 113 or consent of department.
- WELD 118 Adhesive Joining Technology (1 - 3) 4 Cr. Hrs.**
Adhesive joining technology concentrates on the design and assembly of metallic, nonmetallic materials including ceramics. Two major categories, structural and non-structural adhesive bonding as well as adhesives selection, joint design, methods of surface preparation and joint evaluation is compared to general mechanical joining techniques.
Prerequisite: WELD 113, MET 114 or consent of department.
- WELD 119 Gas Tungsten Inert Arc Welding (G.T.A.W./T.I.G.) (2 - 2) 3 Cr. Hrs.**
Theory and fundamentals of gas tungsten arc welding (G.T.A.W.). This method of metal fusion is capable of producing very high quality welds in virtually all metals and one of the few methods of welding some of the more difficult to weld metals. Designed to provide entry level employability and solid foundation for more advanced courses.
Prerequisite: WELD 113 or consent of department.

WELD 120 Advanced Processes—Stick Electrode/M.I.G. Welding (2 - 2) 3 Cr. Hrs.

The student will gain additional knowledge and experience in shielded metallic and gas metallic arc welding. Welding will be performed in all positions; flat, horizontal, vertical and overhead. The class will introduce the student to pipe cutting and pipe welding on heavy sections. Material will be formed and fabricated using power and hand operated tools and equipment. Students will design, cost estimate, procure materials and fabricate a student project.

Prerequisite: WELD 115 or consent of department.

WELD 130 Advanced Processes—Gas Tungsten, Ceramic and Polymer Welding (2 - 2) 3 Cr. Hrs.

The course consists of gas tungsten arc welding of high carbon steel, tool steels, stainless steel, aluminum, magnesium and copper. Plasma cutting of ferrous and non-ferrous metals will be stressed. Metal surfacing including thermal spraying, bonding ceramic and polymers will be performed on a variety of materials.

Prerequisite: WELD 119 or consent of department.

WELD 205 Welder's Print Reading (1 - 1) 2 Cr. Hrs.

Welder's print reading provides detailed information to help welding students develop skills necessary to interpret working sketches and prints common to the welding/metalworking field. In addition, the welding student will gain knowledge in how to interpret conventional drafting symbology and specialized welding symbols and will have the opportunity to perform welds on test plates that are indicated by the welding symbols.

Prerequisite: WELD 120.

WELD 206 Welding Inspection and Qualification (1 - 1) 2 Cr. Hrs.

Quality welders are in demand today. It is important that these welders possess a working knowledge of weld test equipment and qualification as well as be able to test and evaluate welds. Proper use of weld test gages and equipment, dye penetrant, fluorescent dye penetrant, magnetic particle and destructive testing equipment and techniques will be covered.

Prerequisite: WELD 205.

WELD 223 Fabrication—Student Project (2 - 4) 4 Cr. Hrs.

Fabrication of student/instructor selected projects. Emphasis will be upon the development of fabrication techniques, including design, material selection, layout, material preparation and use of fixtures. Welding skills developed in WELD 120 and WELD 130 will be applied. There will be an opportunity for students to further investigate other industrial welding processes.

Prerequisite: WELD 130 or consent of department.

WELD 262 Welding Metallurgy (1 - 2) 3 Cr. Hrs.

Welding metallurgy includes the influence of alloy composition, filler materials, fluxes and thermal interactions on the structure and properties of metals. Topics include the chemical, mechanical, and physical properties of metals, mechanical behavior, microstructure and post-weld heat treating.

Prerequisite: None.



PREPARATION FOR WELDING CERTIFICATION EXAMINATION(S)

There is a greater need today than ever before for "Certified Welders" who demonstrate their competence by passing performance examinations of their work. Although Schoolcraft College is not in the business of qualifying or certifying welders, we can duplicate these tests, provide instruction in the proper welding procedure and provide the appropriate testing equipment to examine and evaluate the results.

WELD 210 Preparation for Welder Certification in Shielded Metallic Arc Welding (S.M.A.W.) (2 - 2) 3 Cr. Hrs.

Prerequisite: WELD 113 or extensive welding experience.

WELD 211 Preparation for Welder Certification in Gas Metallic Arc Welding (G.M.A.W./M.I.G.) (2 - 2) 3 Cr. Hrs.

Prerequisite: WELD 115 or extensive welding experience.

WELD 212 Preparation for Welder Certification in G.T.A.W./T.I.G. (2 - 2) 3 Cr. Hrs.

Prerequisite: WELD 119 or consent of department.

WELD 213 Preparation for Welder Certification in S.A.W. (2 - 2) 3 Cr. Hrs.

Prerequisite: WELD 130 or consent of department.

WELD 214 Preparation for Welder Certification in Pipe Welding (2 - 2) 3 Cr. Hrs.

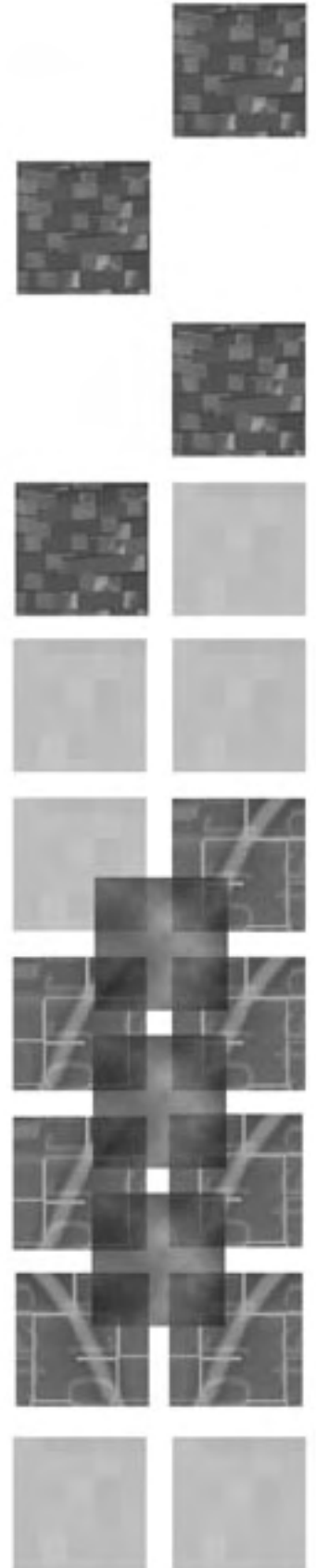
Prerequisite: WELD 130 or consent of department.





Schoolcraft College

Schoolcraft College Personnel



Schoolcraft College Personnel

Administrators

- BEAUDOIN, MARY 1974
Bursar
AAS Schoolcraft College
- BONNER, APRIL 1981
Director of Administrative Computing
AAS Schoolcraft College
BS Madonna University
MS Walsh College
- BONNER, JEANNE 1968
Dean of Educational Services
BA and MALS University of Michigan
MSA Central Michigan
- BORTON, JEFFREY 1990
Director of Technology Services
AAPS Schoolcraft College
BS Lawrence Technological University
- BRAUN, SHARON 1992
Director of Health, Fitness,
and Senior Adult Programs
AA Schoolcraft College
BS Eastern Michigan University
- CHAMBERS, DIANE 1997
Director of Financial Aid
BA Northwood University
- CHAMPNELLA, CINDY 2003
Executive Director of Human Resources
BA Albion
MA Central Michigan University
- DAIEK, DEBORAH B. 1998
Associate Dean-Academic and
Assessment Services
BA and MEd Western Michigan University
PhD Wayne State University
- DOINIDIS, ELGENE 1988
Director of College Centers
BA Madonna University
MS Central Michigan University
- GOODEN, SAMUEL 1987
Director of Media/
Instructional Support Services
AS Schoolcraft College
- HAWKINS, CHERYL D. 1996
Interim Assistant Dean Liberal Arts
BS Eastern Michigan University
MS Wayne State University
- HEATOR, MARTIN G. 2001
Director of Marketing
BS and MA Eastern Michigan University
- HOLMAN, CHERI 1997
Director of Operations for Instruction
AAPS Schoolcraft College
BA Cleary University
MS Central University
- JEFFRESS, CONWAY A. 1982
President
BA Washington and Jefferson College
MEd and PhD University of Pittsburgh
- KONOWALOW, BRUCE S. 2000
Director of Culinary Arts
AOS Culinary Institute of America
BS University of Bridgeport
MA New York University
- LILLEY, JEFFREY 1987
Director of Finance
BS Lawrence Technological University
- LUPO, SUSAN 1993
Director Strategic Initiatives
BS and MA Eastern Michigan University
- MONGE, JOHN A. 1997
Director of Public Safety
BS Madonna University
MSA Madonna University
- NORDMAN, DONNA 1993
Director of Student Advisement Services
AS Schoolcraft College
BGS University of Michigan
MA Eastern Michigan University
- O'NEAL, TIMOTHY K. 1999
Director of Academic Computing Labs
AS Schoolcraft College
BSEd University of Michigan
MA Eastern Michigan University
- O'SULLIVAN, JILL F. 1982
Vice President and Chief Financial Officer
BS Michigan State University
MBA Wayne State University
- PEARCE, ROBERT F. 1994
Associate Dean of College Centers
BS and MPA Wayne State University
- PLOTROWSKI, JOHN 1992
Director of Technical Programming
AAS Schoolcraft College
- POLKOWSKI, JAMES 1986
Executive Director of Business Services and
Risk Management
BS Wayne State University
- RUGG, WILLIAM J. 2002
Director of Distance and
Distributed Learning
BA Barrington College
MS Utah State University
PhD University of Mississippi
- SAVAGE, THOMAS S. 1985
Director of Food Service
AA Henry Ford Community College
BA Michigan State University
- SIGWORTH, DENISE 1985
Dean of Instruction
BS Eastern Michigan University
MA University of Michigan
- STIRTON, EDWARD R. 2001
Director of Grants and Research
BA University of Michigan-Dearborn
MA New Mexico State University
- SULLIVAN, MONICA 2003
Associate Dean of Sciences
BSN Michigan State University
MS University Of Michigan
- SWANBORG, NANCY K. 1989
Director of Women's Resource Center
BS State University at New York
MA Marygrove College
- SWEET, BRUCE 1985
Associate Dean Corporate Services
and Technology
BS and MA Central Michigan University
- TITUS, JOHN 1997
Director of Career Planning and Placement
BS Urbana College
MS Wright State University
- TOMEY, JOHN B. 1974
Executive Vice President
BS and MBA University of Detroit
- VALENTE, JASON 2003
Director of Development
BA Concordia University
- WALSH, JOHN J. 2001
Executive Director of Development
and Governmental Relations
BA Michigan State University
JD Wayne State University
- WAVREK, DIANE M. 1967
Director of College Disbursements
AAS Schoolcraft College
- WIELECHOWSKI, ROBERT A. 1988
Executive Director of
Facilities Management
AAS Schoolcraft College
BET Wayne State University
- WILSON, MATTHEW W. 2001
Director of Purchasing
BA and MBA Michigan State University
- WILTRAKIS, DANIEL 1988
Director of Networking and Security
AS Henry Ford Community College
- WILTRAKIS, FRANK P. 1985
Chief Information Officer
AS Henry Ford Community College
- WRIGHT, CHERYL M. 2001
Dean of Student Services
BA Valparaiso University
MA Eastern Michigan University
- WRIGHT, JOHN 1974
Director of Maintenance and Grounds
AS Schoolcraft College
Licensed Builder
- ZAPPALA, SHIRLEY 1994
Director of Business and
Industrial Services
AA Bay de Noc Community College
BS and MS Central Michigan University
- ZYLKA, SHERYL 1980
Associate Dean
Continuing Education Services
AS Schoolcraft College
BS University of Michigan
MA Eastern Michigan University

Full-Time Faculty

- ABBAS, MOHAMMED, 1991
Associate Professor, Biology
BS Baghdad University
MS Purdue University
PhD Wayne State University
- ADDI, OMAR, 1990
Associate Professor, English
BA University of Mohamed V
MA State University of New York
- ARSZNOV, JANET M. 1996
Associate Professor, Mathematics
BS and MA University of Michigan
MA Eastern Michigan University
- BAKER, STUART C. 1973
Counselor/Associate Professor
AA Henry Ford Community College
BBA Western Michigan University
MA University of Michigan
- BALFOUR, LINDA M. 1990
Associate Professor, Mathematics
BA and MA Eastern Michigan University
- BEARDEN, LOIS J. 1990
Associate Professor, Mathematics
BA and MA University of Michigan
- BERG, STEVEN L. 2000
Assistant Professor, English/History
BA, MA, PhD Michigan State University
- BRIGGS, ROBERT A. 1967
Professor, History
BA Dartmouth College
MAT Johns Hopkins University
- BURKE, WILLIAM J. 1967
Professor, Political Science
AB David Lipscomb College
MA Vanderbilt University
- BURRELL, GRAHAM C. 1975
Librarian, Professor
BA and MLS University of Michigan
- BUTKEVICH, NICKOLAS 1995
Associate Professor, Biology
BS and MS Eastern Michigan University
- CAMPBELL, TAMARA 1995
Associate Professor, Nursing
BSN Mercy College of Detroit
MSN University of Michigan
- CASE, COLLEEN M. 1996
Associate Professor,
Computer Graphics Technology
BS University of Wisconsin, LaCrosse
MLS Eastern Michigan University
- CAVANAUGH, GERALD F. 1969
Drafting/CAD Professor
BS Michigan State University
MA Eastern Michigan
- CHAUDHERY, SUMITA 1968
Professor, English
BA Howard University
MA Howard University
PhD University of Michigan
- CLACK, DONNA L. 1988
Associate Professor,
Developmental Education
BA Wayne State University
MA Eastern Michigan
- DECKER, JOSEPH 1991
Professor, Culinary Arts
Certified Master Pastry Chef
American Culinary Federation
- DICKSON, PAUL M. 2001
Assistant Professor, Chemistry
BS University of Michigan, Dearborn
PhD Wayne State University
- DOLGIN, STEVEN 1990
Professor, English
AA Oakton Community College
BA and MA University of Illinois-Springfield
CAS Northern Illinois University
DA Illinois State University
- ELLIS, TIMOTHY 1999
Assistant Professor,
Computer Information Systems
BBA Eastern Michigan University
- FERMAN, CATHERINE 1992
Associate Professor, CAD/Drafting
BS, GMI, Engineering and
Management Institute
MS University of Michigan
- FLYNN-HAHN, DIANE E. 1996
Associate Professor,
Child Care and Development
BS and MA Eastern Michigan University
- GABRIEL, JEFFREY M. 1987
Professor, Culinary Arts
AOS Culinary Institute of America
Certified Master Chef
American Culinary Federation
- GALPERIN, FREDERICK D. 1966
Professor, Economics
AB University of Michigan
MA and EdS Eastern Michigan
- GARRETT, EVAN D. 1968
Professor, History
BA State University of Iowa
MA University of Michigan
- GAWRONSKI, KEVIN P. 1982
Professor, Culinary Arts
AAS Schoolcraft College
Certified Master Chef
American Culinary Federation
- GIBBONS II, CHARLES 1993
Associate Professor, Metallurgy
AAS Wayne State University
Certified Senior Industrial Technologist
- GORDON, RICHARD A. 1969
Professor, English
BS and MA St. Louis University
- GRIFFIN, SHARON Y. 1988
Associate Professor, Nursing
BSN Mercy College
MSN Wayne State University
- HAIGHT, MARCUS 2003
Instructor, Culinary Arts
Certificate Culinary Arts Schoolcraft College
Certified Executive Chef
Certified Executive Pastry Chef
American Culinary Federation
- HARRIS, MARK C. 1997
Professor, English
BA Michigan State University
MA University of South Carolina
- HARTMAN, JAMES R. 1987
Professor, Theatre, Communication Arts
BS and EdM University of Cincinnati
- HOLODY, PAUL 2002
Instructor Physics
BS University of Michigan
PhD Michigan State University
- HOWIE, CEDRIC 1991
Professor, Economics
BA University of North Carolina,
MS Murray State University
- HUGELIER, DANIEL 1991
Professor, Culinary Arts
Certified Master Chef
American Culinary Federation
- JANKOVIK, KATHERINE 2001
Assistant Professor, Mathematics
BS Northern Michigan University
MS Michigan State University
BA and MA Wayne State University
- JOHNSON, RODNEY 1986
Assistant Professor, Welding
Certificate Schoolcraft College
Certified Welding Educator
Certified Associate Welding Inspector
Residential Builder License
Certificate Welding Fabrication
Certificate Applied Physical Metallurgy
Metallurgical Co-Operative Experience
Completion
Certificate Hazardous Materials Management
- KAPPEN, ORVILLE H. 1989
Professor, Criminal Justice
AAS Henry Ford Community College
BA University of Michigan
MA Eastern Michigan University
- KAVANAUGH, EDWARD A. 1982
Professor, Mathematics
BS University of Michigan
MA University of Michigan
- KERR, SANDRA J. 1994
Associate Professor, Mathematics
BSE University of Michigan
MA Wayne State University
- KIRKPATRICK, KENT 1992
Associate Professor, Political Science
BS and MA Eastern Michigan University
- KRAMER, JAMES R. 1986
Professor, Computer Assisted Manufacturing,
Lasers
BA, BS and MS Eastern Michigan University
- MAHESHWARI, ARCHANA 2002
Assistant Professor, English
BA and MA Osmania University
MA Wayne State University
- MARROSO, MARLYNN J. 1998
Assistant Professor, Nursing
AAS Henry Ford Community College
BSN University of Michigan
MSN Wayne State University
- MCBRIDE, RONALD E. 1974
Professor, Electronics
AAS Schoolcraft College
BS Eastern Michigan University
MA Eastern Michigan University
- MCNUTT, CAROLINE H. 2000
Assistant Professor, Biology
BS, MS University of Western Ontario
- MCPHERSON, DORIS 1992
Associate Professor,
Computer Information Systems
BS, MA and Specialist
Eastern Michigan University
EdD Nova University
- MEHALL, MICHAEL J. 1998
Assistant Professor,
Computer Graphics Technology
BFA and MA Wayne State University

- MINGELA, AUDRONE M. 2000
Assistant Professor, Mathematics
BS University of Michigan
MA Eastern Michigan University
- MONROE, CARL 2002
Instructor, Counselor
BA Sacred Heart Seminary
MA Wayne State University
- MOORE, JOSSELYN 1995
Associate Professor, Anthropology,
Archaeology, Sociology
BA Washington University
MA Hunter College City
University of New York
- MORELOCK, DONALD L. 1967
Professor, Music
BM University of Oklahoma
MM University of Michigan
- NAG, PRANTOSH, 1969
Professor, Economics
BA Scottish Church College
Calcutta University, India
MS and PhD University of Minnesota
- NATHAN, JOHN G. 1975
Professor, English
BA, MA, PhD Wayne State University
- NESBIT, DIANE P. 1985
Librarian, Professor
AA Michigan Christian College
BA Marygrove College
MLS Wayne State University
- NISSEN, JAMES C. 1996
Associate Professor, Humanities
BM, MM, and DMA University of Michigan
- NOFZ, ANDREA L. 1999
Assistant Professor, Spanish
BA and MA Michigan State University
- NUFFER, ROY A. 1987
Librarian, Professor
BA and MLS Wayne State University
- O'CONNELL, DIANE 1990
Associate Professor, Geography
BA College of William and Mary
MS Eastern Michigan University
- O'CONNOR, THOMAS A. 1990
Associate Professor, Biology
BA and MS Purdue University
PhD University of Washington
- OLSON, SARAH M. 2000
Assistant Professor, Art
BAEd, BFA, MA University of Michigan
- ORICK, MICHAEL 1993
Associate Professor, Biology
BA University of Michigan, Dearborn
MS Eastern Michigan University
- PALM, MARY ALICE 1993
Associate Professor, English
AA Orange County Community College
BA University of Michigan
MA Eastern Michigan University
MA University of Michigan
- PALMER, NANCY 1995
Associate Professor, Nursing
BSN Mercy College of Detroit
MSN Wayne State University
- PARTYKA, PATRICIA A. 1978
Professor, Office Information Systems
AAS Schoolcraft College
BS University of Detroit
MED Wayne State University
- PILGRIM, COLLEEN C. 2000
Assistant Professor, Psychology
BS Michigan State University
MA, PhD Wayne State University
- POLCYN, BRIAN D. 1997
Assistant Professor, Culinary Arts
Certified Executive Chef
American Culinary Federation
- POLOT, BARTON L. 2001
Assistant Professor, Music
BM, MM and PhD University of Michigan
- POWELL, MARY S. 1966
Professor, English
BA Arkansas Tech University
MA University of Arkansas
- PRICER, WAYNE F. 1994
Librarian, Associate Professor
ALA Oakland Community College
BA Madonna University
MSLS Wayne State University
- QUELL, ELIZABETH 1991
Associate Professor, Nursing
BSN University of Michigan
MSN Wayne State University
- RAMEY, LAVONDA G., CPA 1985
Professor, Accounting
BBA and MBA University of Michigan
- RANDALL, MICHELLE F., CPA 2001
Assistant Professor, Accounting
BBA University of Michigan
MBA Wayne State University
- REXIUS, JAMES E. 1978
Professor, Geology
BA University of Michigan
MS Eastern Michigan University
- RICHARDS, CHRISTOPHER 2001
Counselor, Assistant Professor
BS and MA Eastern Michigan University
- RUBIO, PATRICIA A. 1969
Professor, Health Information Technology
BS Mercy College of Detroit
MSA Central Michigan University
- RUOKOLAINEN, DAVID W. 1984
Professor, Computer Information Systems
BS and MS Eastern Michigan University
- RYKTARSKYK, DONALD A. 1964
Professor, Business
BS University of Detroit
MA University of Detroit
- SANTIAGO, RODOLFO 2002
Instructor, Computer Information Systems
BS University of the Philippines
MBA University of Detroit
- SCHADEN, J. ROBERT 1993
Associate Professor, Philosophy, Psychology
BA Sacred Heart Seminary,
Master of Divinity,
St. John's Provincial Seminary
MA University of Michigan
PhD Wayne State University
- SCHELLER, JODY 1993
Associate Professor,
Health Information Technology
AS, BS and MS Mercy College of Detroit
- SCHLICK, WILLIAM 1995
Professor, Computer Information Systems/
Electronics Technology
AAS Schoolcraft College
BEE Wayne State University
- SCHNEIDER, ELIZABETH A. 2000
Assistant Professor,
Child Care and Development
AAS Schoolcraft College
BGS University of Michigan
MED Wayne State University
- SCHNEIDER, JANET M. 1989
Librarian, Professor
BA University of Minnesota
MS Columbia University
MA University of Michigan
- SCHUETT, FAYE 1992
Associate Professor, English
BS Illinois State University
MA and PhD University of Tulsa
- SCHWARTZ, RANDY K. 1984
Professor, Mathematics
BA Dartmouth College
MA University of Michigan
- SHEPPARD, CYNTHIA 2002
Assistant Professor, Nursing
BSN Mercy College of Detroit
MSN Madonna University
- SIMMONS-SHORT, IDA 1990
Associate Professor, English
BA and MA University of Michigan
- SNYDER, CHERYL A. 1998
Associate Professor, Chemistry
BA Suny at Plattsburgh New York
MS Purdue University
- STEFFEN, CAROLYN A. 1975
Professor, Biology
BS Appalachian State University
MS Michigan Technological University
PhD Wayne State University
- STEVENS, HOLLY 2002
Assistant Professor, Art History/Humanities
AA Elgin Community College
BA and MA Northern Illinois University
- SUMMERS, DENNIS 2003
Instructor, Computer Graphics Technology
BFA Michigan State University
MFA Ohio State University
- TAYLOR, BONNITA 2002
Assistant Professor, Biology
BS Michigan State University
MS Eastern Michigan University
- TAYLOR, JUJUAN C. 1989
Professor, Communication Arts
BA Mercy College,
MA University of Detroit,
PhD Michigan State University
- THOMSON, ALEXANDER 1999
Assistant Professor, Political Science/History
BA & MA Wayne State University
- TURNAGE, PAUL A. 2000
Assistant Professor,
Computer Information Systems
AS Schoolcraft College
BSA University of Michigan
MS Eastern Michigan University
- VENDITTELLI, DEBORAH S. 1989
Associate Professor, Nursing
AA Lake Superior College
BSN Lake Superior State College
MSN University of Texas
- VENTE, MARY B. 2001
Counselor, Assistant Professor
BS Western Michigan University
MA Eastern Michigan University

- WALDYKE, MICHAEL J. 2001
Assistant Professor, Chemistry
BS Calvin College
MS University of California, Berkeley
- WALE, JERRY C. 1973
Professor, Computer Information
Systems/Electronics Technology
BSEE Lawrence Institute of Technology
MSEE University of Detroit
- WASHKA, JACK A. 1967
Professor, Health and Physical Education
BSEd Ohio University
MEd Ohio University
- WILLIAMS, LARRY G. 1969
Professor, Mathematics
BS and MA Bowling Green State University
- WILSON, GORDON L. 1968
Professor, English
BS Oregon State University
MA University of Oregon
- WOODRUFF, CECIL C. 1970
Professor, Health and Physical Education
BA Central Michigan University
MA Central Michigan University
PhD University of Utah
- WROBLE, STEPHEN A. 1991
Associate Professor, Art
Computer Graphics Technology
BFA Michigan State University
MA Wayne State University
- ZACCONE, LISA A. 2000
Assistant Professor,
Computer Aided Design/Drafting
AAS Delta College
BS Michigan Technological University
- Support Staff**
- ADAMS, LISA 2002
Primary Caregiver
- ADAMS, SUSAN 1991
Help Support Specialist
- ALLEN, ANNE 1991
Primary Caregiver
- ANCHOR, ELIZABETH 1997
Secretary III
- ANDERSEN, GERALDINE 1997
Counseling Office Assistant
- ANDERSON, BRUCE 1999
Electronic Technician
- APPLE, ROSE 1999
Customer Service Associate
- ARAMBASICH, DENISE 2003
Financial Aid Specialist
- BARNES, FRANCES 1992
Utility II
- BARNEY, CYNTHIA 2000
Financial Services Office Assistant
- BAZYLEWICZ, CHRISTINA 2002
Supervisor, Doc-U-Center
- BELLAIRE, BARBARA 1996
Office Assistant
- BERENDT, AMY 1989
Human Resources Technician
- BETTIS, PATRICIA 1981
Accounts Payable Associate
- BLAZIC, CAROL 1992
Secretary III
- BOISSEAU, PATRICIA 1992
Coordinator-Assessment Center
- BONA, ROBERTA 1995
Office Assistant
- BOWE, STELLA 1986
Office Assistant
- BOYLE, CHARLENE 1992
Accounts Payable Associate
- BRIGGS, CARLOS 2000
Student Services Technician
- BROWN, BERNICE 1993
Secretary IV
- BROWN, CATHERINE 2001
Distance Learning Office Assistant
- BROWN, DAVID 1997
Media Technician
- BROWN, KATHY 1997
Coordinator—Instructional Services
- BROWN, PAUL 1983
General Maintenance
- BUREK, NORMA 1979
Coordinator-Computer Operations
- BURNS, DIANE 1994
Lead Coordinator-CES
- CHATHAM, ROBERT 2001
Public Safety Officer
- CHEEMA, LAKHBIR 1996
Culinary Sanitarian
- CICHONSKI, CAROL 1995
Secretary III
- CICCHELLI, CYNTHIA 2001
Information Specialist
- COLLING, GREGORY 1985
Public Safety Officer
- COMMON, SHARON 1998
Secretary III
- COOK, JENNIFER 1997
Utility II
- COOLEY, MARGOT 1997
Financial Aid Assistant
- COUTTS, ROGER 1995
Network Support Specialist
- CROSS, VICKI 1994
Utility II
- DANI, BRENDA 1994
Account Manager
- DANI, DEBORAH 1992
Human Resources Technician
- DIXON, SHIRLEY 1989
Research Coordinator
- DORSEY, JUANITA 1979
Secretary III
- DOUGLAS, JANET 2000
Secretary III
- DROUILLARD, CLARENCE 1966
Utility II
- DUBOIS, ROBERTA 1996
Public Safety Officer
- DUKA, KENNETH 1986
Utility II
- DUNCAN, JR., TIMOTHY 1997
Networking and Software Specialist
- DURIEUX, ERNEST 1977
General Maintenance
- DURLING, BRENDA 1998
VisTaTech Operations Coordinator
- ELESON, BELINDA 1979
College Receptionist
- ERISMAN, BRADLEY 1995
Purchasing Assistant
- FISHER, SANDRA 2003
Coordinator-CES
- FLEMING, MICHAEL 1983
Operations Technician
- FORD, JR., THOMAS, 2000
Lead Coordinator-
Academic Computing Labs
- FORDYCE, KATHLEEN 2002
Coordinator, Nursing Programs
- FOURNIER, JEFFREY 2001
Media Technician
- FOURNIER, KIMBERLEY 1998
Learning Resources Assistant
- FOURNIER, RONALD 1998
Skilled Maintenance-HVAC
- FOX, WILLIAM 1986
Technical Support Specialist
- FRENTZOS, KARLA 1994
Administrative Coordinator
- FULTON, GARY 2003
Information Processing Lab Technician
- GALINDO, JOYCE 1996
Coordinator of Athletic Operations
- GALLAGHER, DIANA L. 1989
Utility II
- GEINZER, CHRISTINE 2000
Secretary III
- GELMAN, SANDRA 1991
Corporate Services Coordinator
- GERARGE, ELAINE 1984
Job Placement Technician
- GERNERT, KERRY 2001
Interior Design Coordinator
- GILLOW, JANINE 1998
Accounting Associate
- GRANT, PHILIP 1977
Utility II
- GRAYER, SHAWNDA 2000
Purchasing Assistant
- GREENWELL, DIANE 1979
Accounts Receivable Associate
- GREIFENBERG, JASON 1997
Networking and Software Specialist
- GRIFFIN, JEFFREY 2001
Utility II
- GUMINA, SARA 1996
Corporate Services Technician
- HALL, JEREMY 2001
Instructional Designer
- HAMM, APRIL 1995
Assistant to the Director of College Bookstore
- HARRISON, BECKY 1988
Utility II
- HAYES, SYLVIA 1989
Marketing/Merchandising Specialist
- HENRY, LORETTA 1995
Programmer/Analyst
- HEUSNER, SCOTT 1997
Programmer/Analyst
- HILL, WILLIAM 2001
Utility II
- HINZMAN, SYLVIA 1988
Public Safety Education Associate
- HOCHBERG, ELLEN 1998
Senior Graphic Designer
- HOLTSCHNEIDER, DONNA 1996
Primary Caregiver
- HOWELL, BRADLEY 1999
Skilled Maintenance

- HUBENSCHMIDT, JOHN 1990
General Maintenance
- HUDSON, JR., ROBERT 1980
Utility I Leader
- HULIK, KATHLEEN 1996
Public Relations/Media Coordinator
- ISABELL, AGNES 1995
Secretary III
- JOHNSON, EMILY 1997
Admissions Office Assistant
- JONES, DAVID 1995
Public Safety Officer
- JONES, TERASA 1991
Continuing Education Office Assistant
- JOSWIAK, FRANCES 1992
Executive Assistant
- KELLY, SANDRA 1976
Secretary III
- KERSHAW, MARLENE 1985
Displaced Homemaker Coordinator
- KING, DAVID 1980
Utility II
- KIURSKI, CATHERINE 1976
Administrative Assistant
to the Executive Vice President
- KLINCK, KERRI 2000
Contract Technician
- KLOTZ, HOLLY 2002
Events Associate
- KOROL, GEORGE 1992
Public Safety Officer
- KOTRBA, CONNIE 2002
Contracted Training Coordinator
- KOVACS, CHRIS 1991
Public Safety Officer
- KOVACS, CONNIE 1998
Primary Caregiver
- KRAWCZYK, THERESA 1990
Secretary III
- KRYSTYNIAK, KAREN 2000
Information Specialist
- KUDLAWIEC, JOHN 1994
Utility I
- LABO, HOLLY 1982
Physical Education Attendant
- LAVEQUE, RANDOLPH 1999
Utility II
- LEAVENS, BRENDA 1999
Accounts Receivable Associate
- LESHOK, LAURA 1997
Information Specialist
- LIGHTFOOT, RUSSELL 1977
Utility I
- LOSEY, KEVIN 1994
General Maintenance
- LOUNSBERY, RICHARD 1989
Public Safety Officer
- LOWE, CLAUDETTE 1998
Secretary IV
- LOZINSKI, STANLEY 1993
Utility II
- LUBECK, SUSAN 1998
Financial Aid Assistant
- LUDWICZAK, KIMBERLY 2003
Bookstore Assistant A
- MABRY, MELISSA 2000
Electronic Technician
- MACHNIAK, ELIZABETH 1994
Secretary II
- MAISANO, JOSEPH 1999
Networking and Software Specialist
- MALINOWSKI, KAREN 1995
Continuing Education Associate
- MANNING, GREGORY 1978
Skilled Maintenance
- MANSFIELD, JAMES 2002
Utility II
- MASON, DENISE 1992
Utility II
- MATHUR, VIKRAMADITYA 1999
Corporate Services Coordinator
- MATTSO, LORNA 1987
Accounts Receivable Associate
- MATUSIK, SHERRINE 1983
Assistant to the Registrar
- MCCARDELL, TIMOTHY 2001
Utility II
- MCCOLLISTER, DONALD 1987
Storekeeper Leader
- MCDONALD, CHERYL 1990
Instructional Services Specialist
- MCVITTIE, DONALD 1979
Business/Technology Lab Coordinator
- MILEWSKI, DANNY 1977
Bookstore Assistant-A
- MILEWSKI, ROBERT 1986
Bookstore Assistant-B
- MILLER, JAMES 1986
Utility I
- MISIAK, CHRISTOPHER 1986
Culinary Administrative Specialist
- MOG, PATRICK 1983
Skilled Maintenance-HVAC
- MOLONEY, STEVEN 1996
Multimedia Coordinator
- MORAND, MARY 1993
Coordinator of Academic Services
- MOSCHET, JUDY 1999
Document and Layout Associate
- MOSS, CARL 1996
Utility II
- MUNDAY, JANICE 1991
Information Specialist
- MUNRO, KENNETH 1986
Physical Education Attendant
- NOWACKI, DARRYL 1987
Networking and Software Specialist
- O'CONNOR, DEBRA 1996
Lead Help Support Specialist
- OLDHAM, JOANN 1996
Assistant to the Director of Food Service
- PARDO, PATRICK 1996
Shift Supervisor
- PARKS, PEGGY 1988
Cashier II
- PAWLAK, PAMELA 1988
Secretary III
- PELOQUIN, DIANA 1993
Primary Caregiver
- PEPPER, MARIANNE 1985
Benefits Specialist
- PEREZ, PATRICIA 1973
Secretary III
- PERUGIA, COLETTE 1995
Assistant Coordinator-Distance Learning
- PETRICCA, JULIE 1997
Senior Buyer
- PIASENTIN, GERARD 1997
Project Engineer
- PLEMMONS, LARRY 1997
Public Safety Officer
- POPKES, JENNIFER 2000
Bookstore Assistant C
- PRENGER, ANN 1998
Coordinator-CES
- PUHLMAN, JEFFREY 1974
Media Systems Technician
- PUHLMAN, SHAROL 2004
Secretary II
- PURCELL, THOMAS 1981
Utility II Leader
- PUSKARZ, TAMMY 2000
Corporate Services Coordinator
- RAGAN, MICHAEL 1976
Skilled Maintenance
- REID, AMY 1994
Lead Account Manager
- RICE, RUTH 2000
Assistant to the Director of Food Service
- RILEY, BONNIE 1980
Cashier III
- RISATTI, ANGELA 2000
Secretary III
- ROURK JR., THOMAS 2003
Utility II
- RUTECKI, JOSEPH 2001
General Maintenance
- RYDZEWSKI, DAVID 2000
Shipping and Receiving Operations Supervisor
- SATHER, SUSAN 1986
Payroll Associate
- SCHAFFRATH, ROCHELLE 1980
Human Resources Specialist
- SCHARMEN, BARBARA 1995
Coordinator, Financial Services
- SCHERTZER, ANDREW 1980
Utility II
- SEVERSON, MELISSA 1992
Payroll Associate
- SHAUGHNESSY-SMITH, JEAN 1989
Co-Supervisor, Children's Center
- SHELTON, CAROLINE 2002
Financial Aid Assistant
- SHERFIELD, BARBARA 1998
Coordinator-Academic Computing Labs
- SMITH, JONATHAN 1998
Document and Layout Associate
- SMITH, KENNETH 1987
Storekeeper
- SMITH, PIERA 1984
Coordinator, Support Services
- SPRINGER, SHERRY 1983
Coordinator of Student Activities
- STAKNIS, BARBARA 1996
Secretary A
- STAPULA, JEANNE 1999
Secretary II
- STOVER, TRACEY 2002
Student Recruitment Specialist
- STOWELL, TODD 1996
Student Activities Technician
- SULLIVAN, PATRICK 1988
Utility I
- SWIGER, CURTIS JR. 1983
Sergeant, Public Safety

SZUKIELOWICZ, GAIL 1989
Transfer Credit Specialist

TAGAREL, LYNDASAY 2003
Bookstore Assistant

TAPIO, GLENN 1996
Utility II

TAYLOR, LUCIAN 1980
Storekeeper

THOMAS, TAHLIA 2002
Coordinator-Academic Computing Labs

TIKKANEN, LISA 1995
Research Assistant

TIMTE, JACQUELINE 1997
Secretary IV

TOMEY, CAROLYN 1991
Office Assistant

TONG, MICHAEL 1988
Utility II

TREMBLAY, LOU-ANN 2002
Utility II

UTLEY, JAMES 1987
Research Technician

VANLUE, JR., ROBERT 1997
Programmer/Operator

WAGERS, MARK 1998
Utility II

WALLACE, LINDA 1995
Secretary III

WALLEN, LYNN 1992
Secretary to the Executive Director
of Human Resources

WATKINS, JOEL 1989
Laboratory Coordinator

WEBER, MATTHEW 1995
Media Technician

WEBER, REBEKAH 1998
Secretary III

WESOLOWSKI, DOUGLAS 2003
Utility II

WESTWOOD, HERBERT 1980
Utility I

WHELAN, JUDITH 1994
Administrative Secretary

WIKTOR-PROFFITT, MICHELLE 1988
Document and Layout Associate

WILLIAMS, DONNA 2004
Secretary III

WILSON, JANET 1993
Accounting Supervisor

WILSON, NICOLE 2002
Admissions Technology Coordinator

YAREMCHUK, PATRICIA 1982
Human Resources Specialist

YOUNG, SUSAN 1987
Senior Buyer

ZACHOS, PATRICIA 1999
Strategic Initiatives Office Assistant

Adjunct, Part-Time Faculty

The following part-time adjunct instructors have earned a minimum of 100 points in one or more Schoolcraft disciplines. Some have expertise in more than one discipline. Highest earned degree is indicated.

ADJUNCT PROFESSOR

(Min. 14 yrs. service & 200 points)

Allen, Robert, PhD..... PHIL

Andersen, Katherine, MA..... MATH

Bagdadchi, Mahin, MS..... CHEM

Bell, Carolyn, PhD..... ENG

Belloli, Patricia, A., MEd..... COUNS

Binkowski, Christine, MS..... MA/HIT/MR

Blay, Harold, MA..... ENG

Bogarin, Russell, MA..... COUN

Bondie, Susan, MA..... CIS

Bowers, Jr., Anne, PhD..... COMA

Brennan, Judith, M. MS..... PSYCH

Brown, Craig A..... CAP

Buchta, Patricia, BSN..... NURS

Burnham, Robert, MS..... MFG/QM

Burnside, Robert, MEd..... COUNS

Bushart, Gerald, MA..... MATH

Cavan, Paul, MS..... COR/CS

Cieslak, Daniel, H., BS..... BUS

Conway, Daniel, J., MA..... POLS

Coppola, Carlo, PhD..... CAP/CM

Cramb, Richard, Jr., MA..... CJ

Cunéo, Linda, MA..... MUSIC

Dagher, Joseph, P., MA..... ENG

Delonis, Richard, JD..... CJ

Dembicki, Helen, MA..... ENG

Derr, Carol, L., MA..... SOC

DiDonato, Jeanine, A., MS..... MATH

Donkers, Sylvia, MEd..... OIS/BUS

Dostal, Frederick, MB..... ACCT

Driscoll, Faye, MA..... COUNS/HDS

Edwards, Allan, EdD..... MATH

Friedrich, Paul, MA..... MATH

Galbraith, Stuart, MA..... WELD/RI

Gibbons, Thomas, MA..... ECON/POLS

Glass-Boyd, Crystal, MA..... GEOG

Gordon, Richard, F., SPA..... BUS

Grewe, Barbara, BSN..... NURS

Griffith, Robert, MBA..... ACCT

Hanert, Frederick, MA..... COUNS

Harden, Shirley, EBM..... MUSIC

Harm, Nancy, EdS..... PSYCH

Harper, Ellen, MSA..... AHE

Hershoren, Gary, EdD..... COUNS

Holman, Cheri, MA..... MATH/OIS

Hopfner, John, MBA..... BUS

Horvath, John, MA..... PSYCH

Hurick, Patricia, MA..... COUNS

Jacobs, Jan, PhD..... PSYCH

Johns, Michael, MA..... HIST

Jooharigian, Robert, PhD..... PHIL

Keller, Mary, J., BS..... CCD

Kilbert, Louis, PhD..... CHEM

Kitakis, Frank, G., PhD..... BIOL

Kiyak, James, MS..... MATH

Ko, Chung, Y., MS..... CHEM

Koelzer, Leonard, MBE..... CIS/ACCT

Korenchuk, Nancy, I., MA..... COMA

Lawton, Corazon, MEd..... MA

Lesko, John, MS..... PHYSICS

Lindenberg, Arthur, MFA..... ENG

Liss, Marianna, MA..... COMA

Lonigro, Antonio, MA..... SPAN

Madsen, James, MA..... CJ

Marilley, David, MS..... MATH

McAllister, Emily, MS..... MATH

McCartney, James, MA..... BUS

McPeak, Russell, MA..... BUS

Meehan, Cheryl, MEd..... MATH

Meehan, George, MEd..... MATH

Melia, Nancy, BS..... BIOL

Mendenhall, Heather, BSN..... NURS

Misiak, Christopher, BA..... CAP/CM

Monge, John, MSA..... PA

Moy, William, AAS..... RI

O'Kelly, James, MA..... POLS/SOC/COR

Oakes, Michael, MA..... GEOG

Olech, Timothy, MS..... BIOL

Parsons, Wayne, A., MA..... CIS

Patchin, Ellen, MS..... BIOL/CON

Phillips, Clyde, T., MS..... CIS

Pickett, Kenneth, M., MS..... RI/MET

Poledink, Alice, MA..... ENG

Probelski, James, MS..... MATH

Rabotnick, Seymour, MBA..... BUS/ACCT

Ramia, Rafael, MS..... CIS

Reynolds, John, R., MA..... HIST

Robinson, Ronald, MA..... POLS

Rogowski, Ronald, MA..... COUNS/HDS

Safran, Kenneth, JD..... BUS

Sarris, Cynthia, MFA..... ART

Sarris, Stephanie, MFA..... ART

Schuby, Thomas, MA..... SOC

Segowski, Edward, MEd..... MATH

Sikorski, Gary..... PA

Simo, C.T., MSA..... BUS

Skinner, Robert..... PE

Smith, Craig, MA..... ART

St John, Beverly, J., MS..... BIOL

St. Chur, Joseph, BE..... RI/ELECT/BMET

St. Louis, Mary, MA..... MATH

Stanley, Dorothy, MA..... MATH

Sylvester, James, MEd..... COUNS

Szabo, Sharon, MBEd..... CIS

Temporelli, Barbara, MS..... CHEM

Trembath, Darryl, MBA..... BUS

Turnau, III, William, BS..... DRFG/CAD

Vukmirovich, Sylvia, EdD..... COUNS

Wasserman, Melvin, EdD..... HUM

Wasson, Samuel, MSEE..... ELECT

Weiskopf, Barbara, MS..... PSYCH

Westover, Glenda, MA..... MATH/RI

Woods, Robert, MA..... ENG/PHIL

Worosz, Gregory, MBA..... BUS

Wroblewski, Veronica, MA..... COLLS

Yee, Donald, MA..... BUS

Zimmerman, Nancy, MA..... COUNS

Zurel, Richard, MA..... ANTH/ARCOL

ADJUNCT ASSOCIATE PROFESSOR

(Min. 8 yrs. service & 150 points)

Badura, Arlene, MBA..... COMA

Bartha, Paul, Z., MS..... CIS

Bartlett, David, MA..... CCD

Bodrie, Carol, BSN..... AHE/NURS

Boron, James, MA..... CIS

Brown, Kathy, MA..... ACCT/MATH

Cardello, Carla, MA..... BUS

Denoyer, Georgia, BS..... AHE/MA

Garcia, Glenda, MA..... PSYCH

Hackman, Bruce, MA COMA
 Huber, William, BBA CIS
 Josiah, George, MS MATH
 Jubenville, Lawrence, ME SOC
 Julian, Bruce, BA CIS
 Kasenow, Gary, JD COR
 Kaufman, Judith, MEd, MA CPPC/HDS
 Kiurski, Thomas, MPA FIRE
 Kohlert, Peter, A., MSA MATH
 Kulnis, Edward, MA ECOUN
 Kurland, Sheila, MS BIOL
 Lane, Robert, MA BIOL
 Lee, Matthew, BA MFG/RI
 Levy, Barbara, S., MSN NURS
 Little, Patricia, MA ECOUN
 Lovelace II, Robert, AS EMT
 Martoia, Suzanne, BSN NURS
 Mogelnicki, Margaret, MA CIS
 Mouchoulis, Ellen, MA ART
 Moylan, Mark, MA COMA
 Nadon, Robert, MA FIRE
 Patail, Bryanne, MLS ELECT/BMET
 Perry, Patricia, MS GEOL/GEOG
 Perry, Robert, FIRE
 Pritt, Jeanette, MA COMA
 Pylvainen, Sandra, MA ENG
 Redmond, Charles, MS CIS
 Rejniak, Christine, MA COLLS
 Reppenhagen, Gilbert, ME ENG
 Rothstein, Barbara, MA GER
 Shuput, Evelyn, MA ECOUN
 Sim, Julie, MA POLS
 Sitzler, Mardell, MA MATH
 Smilnak, John, AAS FIRE
 Stanton, Fred, BS PA
 Swarup, Chitra, MS MATH/RI
 Talbert, Linda, S., MA COLLS
 Taylor, Kathy, BS MT/HIT/MR
 Towner Jr., Melvin, MBA CIS
 Trpovski, Jovan, BAA POLS
 Viksne, Edgar, MBA BUS
 Whitmarsh, Lawrence, MS QM

ADJUNCT ASSISTANT PROFESSOR

(Min. 3 yrs. service & 100 points)

Abani, Kaveh, MA CIS
 Alexander, Keith, BA CIS
 Al-Shemeri, Furat, PhD BIOL
 Alway, Peter, MS PHYS
 Anderson Jr., Thomas, PhD HIS
 Anderson, Diane, MS BIOL
 Baehre, Theodore, AAS PE
 Baker-Reed, Shirley, MA CCD
 Behler, Conrad, MA HIST
 Bell, Patricia PhD HIST
 Bielat, Robert, MA ART
 Breger, William, MBA ECON/ACCT
 Brooks, Gale, BSN NURS
 Cypher, Jeffrey, MS BIOL
 Dakessian, Hagop S., MA ECON
 Derderian, Harry, MBA BUS
 Doinidis, Elgene, MS OIS/BUS
 Eliasson, Jonene, MA FR
 Ellies, Karen, MBA BUS
 Enteshary–Najafabady, Abbas, MS CIS
 Fletcher, Debra, MA BIOL
 Fox, Harvey, BS CIS/OIS
 Frank, Robert, EMT
 Gates-Palombo, Debora, MA ECOUN
 Grant, Dorothy, MA COLLS

Grodsky, Elliott, MA ENG
 Harper, Michael, AAS FIRE
 Hays, Samuel, MA ENG
 Hewelt, Barry, MA END
 Hiller, David, MS CJ/PA/FIRE
 Hummer, Herbert, MS COR
 Jackson, Harold, MA MATH
 Johnson, Theodore, MBA CJ
 Laberge, Brend, BSN NURS
 Leopold, Larry, MALS ENG
 Marriott, Cindy, PhD PSYCH
 Miles, Lois, MPA COR
 Modlin, Russell, BSN NURS
 Morton, Harrison, BS MATH
 Murphy, Susan, MBA CIS
 Murray, Steven, PhD PSYCH
 Pederson, Vera, MA CCD
 Peters, Chris, AAS BMET/ELECT/COMPS
 Petit, Hollie, MA COMA
 Pniewski, Stanley, MAT MATH
 Porter, Donald, BS CIS
 Puggini-Denhof, Julie, MA COUNS
 Qiu, Yun, MS MATH
 Rivard, Clarence, BA FIRE
 Roney-Hays, Sandra, MA SOC/ANTH/PSYCH
 Roth, Diane, MA MATH
 Saratovtsev, Dena, BA ENG
 Siegel, Marie, BSN NURS/HIT
 Snyder, Jill CAP
 Spolsky, Susan, MSW SOC/PSYCH
 Stovall, Clarice, MA COR
 Switalski, Jurgin, PhD CHEM
 Teska, Jane, MA ELECT/RI
 Walker, Andrew FIRE
 Wlosinski, Raymond, BS FIRE
 Yemets, Aleksandr, MS MATH

Emeritus-Honoraire Employees ♦ deceased

♦ ADAMS, JON P. 1965–1973
 Dean of Applied Sciences Emeritus
 AHLAND, VIRGINIA 1969–1991
 Secretary Learning Resources Honoraire
 ALLEN, KENNETH M. 1965–1993
 Biology Professor Emeritus
 ALLISON, LEA M. 1975–1998
 OIS Associate Professor Emeritus
 ANDERSON, ROGER 1968–2002
 Biology Professor Emeritus
 ♦ ANDREWS, ELIZABETH 1973–1989
 Assistant Dean, CES Emeritus
 ARLEN, RICHARD 1969–1994
 Accounting Professor Emeritus
 ATTALAI, PETER 1964–1984
 German, Spanish Professor Emeritus
 BAUMGARTNER, WILLIAM H. 1967–1986
 Electronics Professor Emeritus
 ♦ BEDFORD, JOHN P. 1964–1981
 Geology Professor Emeritus
 BENSON, RICHARD 1967–1993
 Culinary Arts Professor Emeritus
 BERKAW, MOLLY 1988–2003
 Secretary to the Assistant Vice President for
 Instruction Honoraire
 BLACK, AGNES J. 1973–1992
 Personnel Specialist Honoraire
 BLACK, ROBERT J. 1966–1992
 Art Professor Emeritus

BLOOM, BRADLEY 1968–2001
 Music Professor Emeritus
 BLOOM, STUART C. 1965–1996
 History Professor Emeritus
 BOGARIN, RUSSELL 1965–1991
 Registrar Emeritus
 BOLCER, EILEEN 1971–1995
 Nursing Professor Emeritus
 BOYCE, MARILYN JOYCE 1973–1994
 Doc-U-Center Supervisor Honoraire
 BOYE, DALE 1970–1995
 Mathematics Professor Emeritus
 ♦ BRADNER, ERIC 1961–1971
 President Emeritus
 BREITHAUP, ROBERT L. 1966–1987
 Assistant Dean of Culinary Arts Emeritus
 BURNELL, JOHN R. 1968–1998
 Manufacturing Professor Emeritus
 BURNSIDE, ROBERT 1967–1996
 Counselor Professor Emeritus
 BUTLER, PATRICK 1962–1984
 Director of Library Emeritus
 CARLETON, MIDGE 1970–2002
 Associate Dean-Sciences Emeritus
 CASTILLO, CHARLES W. 1964–1985
 Communication Arts Professor Emeritus
 ♦ COLLINS, LOIS 1970–1993
 Secretary to the Dean of Educational
 Services Honoraire
 COOK, LOWELL T. 1967–1997
 Business Professor Emeritus
 COTTON, SHARON A. 1980–2000
 Accounting Professor Emeritus
 COVERT, CHRISTINE 1965–1982
 OIS Professor Emeritus
 DAGHER, JOSEPH 1967–1988
 English Professor Emeritus
 ♦ DANSBY, EDWYNNA 1979–1994
 Dean of College Centers Emeritus
 DIEBEL, THADDEUS E. 1973–1985
 Dean of College Centers Emeritus
 DOLL, RODMAN E. 1968–1997
 Mathematics Professor Emeritus
 DUFORT, ROBERT C. 1969–1999
 Art Professor Emeritus
 EDMUNDS, MARGARET 1991–2002
 Continuing Education Office Assistant
 Honoraire
 ELLIS, MIDGE B. 1974–1991
 Coordinator of Special Events Honoraire
 FEENSTRA, FERNON 1964–2002
 Associate Dean-Business and Technology
 Emeritus
 FERRARI, DOROTHY E. 1982–1992
 Personnel Specialist Honoraire
 FLOREK, SAUNDRA P. 1969–1999
 Dean of Marketing and Development Emeritus
 FOLEY, MAUREEN F. 1983–2000
 Chemistry Professor Emeritus
 ♦ GAITSKILL, LAWRENCE R. 1964–1985
 Political Science Professor Emeritus
 GANS, MARVIN 1964–2002
 Assistant Dean, Continuing Education
 Services Emeritus
 ♦ GARRITANO, ROCCO 1966–1991
 Mathematics Professor Emeritus
 GEIL, BARBARA A. 1964–1995
 Vice President for Student Services Emeritus

- GILBERT, BETTY J. 1986–2001
Executive Director of Human Resources Emeritus
- GREEN, ANNE 1978–2002
Administrative Coordinator to the President Honoraire
- GRIFFITH, RONALD 1971–2003
Assistant Vice President for Instruction Emeritus
- ❖GUDAN, SIRKKA 1980–1998
Assistant Dean for Academic and Assessment Services Emeritus
- HAMMOND, PATSY R. 1970–1995
Nursing Professor Emeritus
- HARJU, DEBBIE 1980–2002
Assistant to the Director of Enrollment Management Honoraire
- HEINZMAN, DAVID L. 1970–1986
Assistant Dean for Instruction Emeritus
- HERSHOREN, GARY 1967–1996
Counselor Professor Emeritus
- HURICK, PATRICIA 1990–2002
Counselor Professor Emeritus
- ❖HUSTON, D. LOUISE 1964–1982
Director of Accounting, Payroll Honoraire
- JAWOR, MARY 1964–1989
English Professor Emeritus
- ❖JONES, CLARENCE 1964–1979
Chemistry Professor Emeritus
- KAPLAN, SUZANNE 1964–2002
English Professor Emeritus
- KEENE, ROBERT 1968–1979
Instructional Vice President Emeritus
- ❖KELLEY, RALPH B. 1964–1984
English Professor Emeritus
- ❖KELLY, CECILIA 1964–1983
Art Professor Emeritus
- ❖KIANFAR, MEHDI 1967–1987
Political Science Professor Emeritus
- KIRKLAND, JO ANN 1989–2000
Human Resources Operations Assistant Honoraire
- ❖KOLENDA, JANET 1971–2001
Nursing Professor Emeritus
- KYRIACOPOULOS, JOHN 1965–1992
English Professor Emeritus
- LAO, LINCOLN 1968–1999
Art Professor Emeritus
- LARKIN, VIRGINIA E. 1985–1998
Secretary to Associate Dean of College Centers Honoraire
- LESKO JR., JOHN S. 1969–2002
Physics Professor Emeritus
- LICHTY–MAYES, ELIZABETH F. 1967–1992
English Professor Emeritus
- LINDENBERG, ARTHUR 1967–2002
English Professor Emeritus
- ❖LINDNER, W. KENNETH 1962–1987
Vice President for Business Services Emeritus
- LOEHNE, JOYCE 1969–1986
Assistant to the Vice President for Business Services Honoraire
- ❖LOCKWOOD, BRYCE 1964–1988
Physics Professor Emeritus
- LUDWIG, JOYCE 1964–1992
Secretary to the President Honoraire
- LURAIN, JANE 1966–1985
Secretary to Assistant Dean Community Services Honoraire
- MARTIN, CANDIS 1965–1997
Assistant Dean Math, Information Systems, and Business Emeritus
- MATSON, RICHARD E. 1968–1990
Computer Information Systems Professor Emeritus
- MAYES, LA SALLE S. 1964–1992
English Professor Emeritus
- MCDOWELL, RICHARD W. 1981–2001
President Emeritus
- ❖MCNALLY, EDWARD V. 1963–1981
Vice President for Student Affairs Emeritus
- MILLER, RALPH 1966–1985
Geography Professor Emeritus
- MINOCK, DONNA 1967–1996
English Professor Emeritus
- MOORHEAD, REX K. 1968–1981
Mathematics Professor Emeritus
- MORGAN, HARRIET C. 1964–1990
Biology Professor Emeritus
- MUNN, WILSON E. 1964–1995
Mathematics Professor Emeritus
- MUNRO, GERALD 1970–1996
Executive Director of Human Resources Emeritus
- NASLUND, RAYMOND L. 1966–1985
Accounting Professor Emeritus
- NICKELS, WILLIAM G. 1968–2001
Chemistry Professor Emeritus
- NIERGARTH, GROVER G. 1965–1990
Biology Professor Emeritus
- OCHS, MARION J. 1964–1980
Business Professor Emeritus
- OLSON, JOHN A. 1973–1985
Librarian Emeritus
- ORDOWSKI, LAWRENCE E. 1965–1995
Associate Dean of Liberal Arts Emeritus
- O'TOOLE, MICHAEL A. JR. 1964–1992
English Professor Emeritus
- PERKINS, W. DAVID 1964–1985
English Professor Emeritus
- PIKE, JEAN 1964–1997
Associate Dean of Students Emeritus
- ❖PLETCHER, E. RACHEL 1968–1983
Payroll Employee Honoraire
- ❖POUPART, OSCAR 1967–1992
CIS Professor Emeritus
- PROFFITT, CAROL M. 1992–1999
Document and Layout Associate Honoraire
- RABY III, ADELARD H. 1981–2001
Vice President for Business Services Emeritus
- RANDALL, RONALD 1969–2002
Registrar Emeritus
- RICHMOND, MERLE J. 1970–1999
Accounting Professor Emeritus
- ROGOWSKI, RONALD W. 1970–2001
Counselor Professor Emeritus
- RONCOLI, THOMAS C. 1967–1992
Physical Education Professor Emeritus
- ROUSSEAU, CLARA M. 1962–1981
Administrative Assistant Honoraire
- ❖RUDICK, LAWRENCE W. 1964–1983
Communication Arts Professor Emeritus
- ❖RUPP, LOUIS E. 1969–1988
Counselor Professor Emeritus
- ❖RYAN, WILLIAM A. 1964–1979
Geology Professor Emeritus
- RYKTARSKYK, DONNA 1967–2003
Assistant Director–Financial Aid Honoraire
- SAMPSON, DOROTHY 1967–1998
Nursing Professor Emeritus
- SATTIG, HARRIET H. 1963–1980
Director of Health Careers Emeritus
- SCHARMEN, LARRY L. 1985–2000
Biomedical Engineering Technology Professor Emeritus
- SHON, MAYBELLE B. 1966–1983
Secretary to Dean of College Centers Honoraire
- SIPE, DELAVAN W. 1965–1987
Electronics Professor Emeritus
- SMITH, MARY 1965–1988
Nursing Professor Emeritus
- ❖SNYDER, EDMUND S. 1962–1974
Librarian Professor Emeritus
- SNYDER, GORDON G. 1965–2000
Biology Professor Emeritus
- STEC, LEONARD 1966–1990
Culinary Arts Professor Emeritus
- STEFANSKI, FREDERICK 1966–1980
Instructional Dean Emeritus
- STEIN, JOANNE 1967–2002
English Professor Emeritus
- SUTHERLAND, ROGER A. 1964–1990
Biology Professor Emeritus
- SYLVESTER, JAMES 1967–1997
Counselor Professor Emeritus
- SZABO, SHARON F. 1981–2001
Computer Information Systems Professor Emeritus
- TANG, KIN LING 1990–1999
Psychology Associate Professor Emeritus
- TEWS, CAROLYN H. 1977–1999
Mathematics Professor Emeritus
- TOMALTY, R. ELAINE 1987–2001
Secretary for Women's Resource Center Honoraire
- TOMALTY, RICHARD L. 1970–2000
Counselor Professor Emeritus
- VERLINICH, MARY 1973–1989
Secretary for Financial Aid Honoraire
- VUKMIROVICH, SYLVIA 1967–2001
Counselor Professor Emeritus
- ❖WATSON, ANDREW C. 1964–1999
Chemistry Professor Emeritus
- WEBBER, JOHN R. 1965–1993
Director of Counseling Emeritus
- WILSON, JOHN M. 1965–1993
History Professor Emeritus
- WITTEN, DOROTHY B. 1975–2001
Child Care Development Professor Emeritus
- WITTEN, JOHN D. 1967–2001
Counselor Professor Emeritus
- WOLTZ, PHEBE M. 1965–1982
Accounting Professor Emeritus
- WOROSZ, GREGORY J. 1969–2000
Business Professor Emeritus
- ZANDE, GERALDINE 1976–1997
Senior Buyer, Purchasing Honoraire

Advisory Committees

Accounting

Richard Berschback, CPA	Associate Professor of Accounting, Walsh College, Troy
William Breger	Accountant, W. A. Breger, Bloomfield Hills
Janet Evans	Senior Account, Medstat Group, Thomson Corporation, Northville
Michele Hill, CPA	Buyer of Instrument Panels, Ford Motor Company, Dearborn
Gerard J. Mellnick, CPA	Chief Financial Officer, Building Industry Association of Southeastern Michigan, Farmington Hills
David L. Williamson, CPA	Partner, Post, Smythe, Lutz & Ziel, Plymouth

Biomedical Engineering Technologists

Joe Acosta	System Director DMC, Clinical Engineering, Grace Hospital, Detroit
Ronald Edmonds	Manager, Clinical Engineering, Providence Hospital, Southfield
Jane Focht, CBET	Certified Biomedical Engineering Technologist, Beaumont & Service Co. LLC, Royal Oak
Marty Gibson	Service Delivery Leader for Clinical Engineering, Engineering Services, St. Joseph Mercy Health System, Ann Arbor
Steven J. Henning	Director, Plant and Technology Management, Botsford General Hospital, Farmington Hills
David C. Lawton, Jr.	Sales Manager, A.S.A.P. Services, Novi
Bryanne Patail	Biomedical Engineer, Department of Veterans Affairs, National Center for Patient Safety 10X, Ann Arbor
Chris Peters, CBET	Certified Biomedical Engineering Technologist, University of Michigan Hospitals, Ann Arbor
London A. Quicci	Director of Facility Services, Sinai-Grace Hospital, Detroit
Paul Roberts	Retired Director of Biomedical Engineering, University of Michigan Hospital, Saline

Child Care and Family Services

Shirley Baker-Reed	Licensing Consultant, Child Day Care Licensing, Department of Consumer & Industry Services, State of Michigan, Detroit
David Bartlett	Special Education Teacher, Northville Public Schools, Northville
Dorene Brown	Head Start Social Worker and Training Coordinator, Detroit Public Schools and Wayne State University.
Ingrid Crepeau	Director of T.L.C. Preschool and Kindergarten, Livonia
Bethany Duncan	Home Day Care Provider, A Dream Come True Day Care, Inkster
Patricia Kirksey	Director of Prep Program, Jackson Center, Livonia
Ray Roberts	Executive Director, R. Roberts Residential Services, Inc., Redford
Patricia Sargent	Director of Early Childhood, Downriver Guidance Clinic, Lincoln Park
Carol Smiley	Director of Early Childhood, Livonia Public Schools, Livonia
Jason Vance	Birght-Horizons Family Solutions, Program Coordinator, UAW-Ford FSLC Child Development Center, Dearborn

Computer Assisted and Manufacturing for Quality Production

Robert Burnham, MSE, PE	Vice President, Engineering, Advanced Accessory Systems, Sterling Heights
Kevin Crute	Chief Operating Officer, Cimatron Technologies, Inc., Livonia
Gene Keyes	President, Keyes & Company, Inc., Highland
David J. Lawrence	Project Launch Coordinator/Engineer, Ford Motor Company, Wayne
Matthew J. Lee	Training Developer, Ford Motor Company, Plymouth

Computer Graphics Technology

Richard Cochrum	Mac-Operator, Valassis Communications Inc., Livonia
Susan M. Daly Ed Hubert	Assignment Manager, Portfolio, Southfield Department Chair, Visual Communication, Livonia Career/Tech Center, Livonia
John T. Kosinski II	Owner, John T. Kosinski Design Studio, River Rouge
George Sepetys	Vice President, Director Graphic Design Consulting, Ford and Earl, Troy

Computer Information Systems and Computer Service

Ken Demski	Retired Senior Manager, Manufacturing Systems, Information Technology Management, Daimler Chrysler Corporation, Auburn Hills
Bill Tancill	Retired Systems Implementation Manager, Ford Investment Enterprises Corporation, Detroit
Karl Zager	Consultant, Plante & Moran LLP, Southfield
Vincent Zebraitis	Systems Engineer, Cisco Systems, Inc., Southfield

Correctional Science

Robert Brown, Jr.	Former Director, Michigan Department of Corrections, Lansing
Theodore Johnson	Attorney, 35th District Court Magistrate, Plymouth
Clarice Stovall	Warden, Western Wayne Correctional Facility, Plymouth
Michael Swope	Retired, Michigan State Police Officer, Sterling Heights

Culinary Arts and Culinary Management

Milos Cihelka	Master Chef, Retired, Bloomfield Hills
Randy Emmert	Executive Chef, Great Oaks Country Club, Rochester
Ted Gillary	General Manager, Detroit Athletic Club, Detroit
Paul Grosz	Executive Chef, Cuisine, Detroit
Rick Halberg	Chef/Owner, Emily's Restaurant, Northville
Lorraine Platman	Chef/Owner, Sweet Lorraine's, Southfield
Matt Prentice	Owner/Entrepreneur, Morels, Bingham Farms
Leopold Schaeli	Master Chef, Retired, West Bloomfield
Takashi Yagihashi	Executive Chef, Tribute, Farmington Hills

Design

Fred Ellicott	Retired Professor, CAD/Drafting, Ypsilanti
Hank Knott	Product Design Manager, GKN, Romulus
John Kurtz	Technology Manager, Tesco Technologies, Auburn Hills
Thomas Miller	GDT Technical Representative, Dearborn
Steven Roddy	Accounts Representative, STR Services, Livonia

Electronics

Thomas Chrapkiewicz	Manager of Applications Engineering, Philips Semiconductors, Farmington Hills
Darlene Delonis	Biomedical Engineering Technologist, William Beaumont Hospital, Royal Oak
Kenneth Demski	Retired Senior Manager, Manufacturing Systems, Daimler Chrysler Corporation, Auburn Hills
John Patchett	Principle Supervisor, Primary Services, Detroit Edison Company, Detroit
Ethan Rosenbaum	Biomedical Engineer, St. John Hospital, Detroit
Frank Schmid	Consultant, Beverly Hills
Richard Snyder	Engineering Technician, Detroit Edison Company, Detroit
Jef Spencer	Director, Infinity Performance Systems, Novi

Emergency Medical Technology

Tom Ayers	Education Manager, Huron Valley Ambulance Service, Ann Arbor
Robert Domeier	Physician, Medical Director, Huron Valley Ambulance Service, Ann Arbor
Robert Frank	Paramedic Instructor, Huron Valley Ambulance Service, Ann Arbor
Gerald Zapolnik	Vice President/Support Operations, Huron Valley Ambulance Service, Ann Arbor

Equine Arts and Science

Natalie Campbell	Horse Enthusiast, Midland
Frank Erickson	Horse Enthusiast, Graduate of Equine program, Novi
Leah Juarez	Magazine Representative, Horse of Kings Magazine, White Lake
Tim Olszewski	Sheriff, Wayne County Mounted Police, Wayne County
Mike Petty	Veterinarian, Arbor Pointe Veterinary Hospital, Canton
Merle Richmond	Horse Enthusiast, State Equine Organizations, Walled Lake

Fire Regional Training Center

James Allen	Chief, Northville Fire Department, Northville
Deward Beeler	Region Supervisor, Michigan State Fire Fighter's Training Council, Lansing
Tim Bosman	Deputy Chief, Riverview Fire Department, Riverview
Allen W. Brandemihl, Jr.	Chief, Livonia Fire Department, Livonia
Robert Dahlman	Chief, Wayne Fire Department, Wayne
David Hiller	Director, Grosse Pointe Park Department of Public Safety, Grosse Pointe Park
Randall Layton	Retired Chief, Southgate Fire Department, Southgate
Daniel McNamara	4 th District Vice President, Michigan State Fire Fighter's Training Council, Lansing
Keith Weisgerber	Training Coordinator, Michigan Fire Fighter's Training Council, Lansing

**Health Information Technology,
Medical Transcription and Coding Specialist**

Gail Alder	Registered Health Information Administrator, Alder Associates, Inc., Farmington Hills
Cheryl Kasparek	Registered Health Information Technician, Blue Care Network, Southfield
Nancy Klinkhammer	Registered Health Information Administrator, Beaumont Hospital, Royal Oak
Shirley Laszlo	Registered Health Information Technician, Quality Management Coordinator, Bridgeway Services, Taylor
Patricia McLane	Registered Health Information Administrator, Henry Ford Community College, Dearborn
Diane Repshinka	Registered Health Information Technician, University of Michigan, Ann Arbor
Shirley Wise	Registered Health Information Administrator, Southeast Michigan Surgical Hospital, Warren

Kids on Campus

Bill Camp	Executive Director of Secondary Education, Wayne/Westland Schools, Westland
Gene Charette	Child Development Facilitator, Taylor Public Schools, Taylor
Elizabeth Hammer	Delta Gifted Department Chairperson, Farmington Public Schools, Farmington
Terri Michaelis	Elementary TAG Lead Teacher, Plymouth/Canton Community Schools, Canton
Susan Ryan	Gifted Specialist, Livonia Board of Education, Livonia
Nancy Schieb	Academically Talented Facilitator, Northville Schools, Northville
Ron Sutherby	Principal/Gifted & Talented Coordinator, Westwood Elementary School, Dearborn Heights
Donna Tinberg	Director of Student Services, Novi Community Schools, Novi
Mary Angela Winter	Program Director/TAG Coordinator, Van Buren School District, Belleville

Laser Electro-Optics Technology

Frank D. Brennan	Lasers Sales Manager, TRUMPF, Inc., Plymouth
Randy Cook	Manufacturing Supervisor, Rofin Sinar, Plymouth
Richard Corey	Application Engineer, Rofin Sinar, Plymouth
Richard R. Davis	Sales Manager, PRECITEC, Fenton
Mark Gartner	STA Process Specialist Welding/Joining, Ford Motor Company, Dearborn
Gerry Herman	Senior Laser Applications Engineer, GSI Lumonics Corporation, Northville
Alan Miller	Senior Welding Engineer, Ford Motor Company, Livonia
Robert Ruokolainen	Senior Project Scientist, General Motors Research & Development, Warren
John M. Ruselowski	Director of Marketing and Sales, Ann Arbor Machine Company, Chelsea

Law Enforcement—Continuing Education

Ronald Dehne	Lieutenant, Livonia Police Department, Livonia
Daniel Grant	Chief, Brownstown Township Police Department, Brownstown Township
David Harvey	Chief, Detroit Metropolitan Wayne County Airport, Romulus
Victor Hess	Chief, Metro Parks Public Safety, Wayne County
James Lazar	Deputy Chief, Dearborn Heights Police Department, Dearborn Heights
Robert Metzger	Chief, Huron Township Police Department, New Boston
Richard Niemisto	Assistant Chief, Farmington Hills Police Department, Farmington Hills
Michael Sumeracki	Chief, Wayne Police Department, Wayne

**Learning Assistance Center and
Developmental Education**

Mary Couillard	Career Intern Coordinator, Livonia Public Schools, Livonia
Jan Kavulich	Counselor, Plymouth High School, Canton
Bridget Kocurek	Counselor, Canton High School, Canton
Barbara Lehmann	Counselor, Canton High School, Canton
Gwendolyn McNeal	East Region Supervisor, Michigan Commission for the Blind, Detroit
Delores Norman	Special Populations, Detroit Public Schools, Detroit
Lois Rice	Adult ESL Instructor/Supervisor, Livonia Dickinson Center, Livonia
Jan Skinner	Rehabilitation Counselor, Michigan Rehabilitation Services, Livonia
Mary Vertrees	Counselor, Salem High School, Canton

Marketing and Applied Management

Robert Bethel	Owner, Bethel Consulting, Novi
Carla Cardellio	Business Manager, Law Offices of Mark Cardellio, Clinton
John Hopfner	Retired Manager, Ford Motor Company, Dearborn
Tom Simo	Retired Senior Account Manager, South Lyon

Medical Assisting

Char Sobieski Greco	Accounting Manager, Health Advantage Company, Dearborn
Barbara Grzebik	Certified Medical Assistant, Warszawski & Clark PC, Farmington Hills
Diane Hoffman	Certified Medical Assistant, Livonia Family Physician's Office, Livonia
Toy Lin Lee	Certified Medical Assistant, Wayne State University, Detroit
Gregory Monroe	Doctor of Osteopathy, Garden City Hospital, Garden City
Nancy Pichla	Certified Medical Assistant, Oakwood Health Care, Dearborn
Karan Thompson	Certified Medical Assistant and Registered Medical Assistant, Tempro, Westland

Metallurgy and Materials Science

Nicholas Gianaris, PhD, PE	Light Weight Materials Specialist, Visteon Corporation, Dearborn
M. Tod Gonzales	President, Procoil, Canton
Glen Hineman	Metallurgist, Eaton Steel Corporation, Oak Park
William F. Jandeska, PhD	Manager, Powder Metallurgy Technology, Powertrain, General Motors Powertrain, Pontiac
Kenneth M. Pickett	Metallurgy Technical Fellow, Visteon Corporation, Dearborn
Daryl R. Wilusz	Corporate Materials Analysis, Masco Corporation, Research Development, Taylor

Music—Recording Technology

Mark Brown	Purchasing Director, Audio Visual Impact, Farmington Hills
Jason Corey	Assistant Professor, Performing Arts Technology, School of Music, University of Michigan, Ann Arbor
Todd Elliott	Technical Director, Kensington Community Church, Troy
Ben W. Ferguson	CEO, President of Chase Creative Unlimited Inc., Plymouth
Dennis Niemic	Owner, Carden Videotaping Services, Westland

Nursing—Associate Degree and Practical

Judith Caroselli, RN	Director of Operations, Westland Convalescent Center, Westland
Lisa Chudzinski	Director of Nursing, Whitehall Healthcare, Novi
Carol Ann Fausone	Director of Nursing, St. Mary Hospital, Livonia
Karen Fralick	Manager of Nurse Recruitment, Detroit Medical Center, Detroit
Marilyn Harton, BSN	Degree Completion Coordinator, Madonna University, Livonia
Linda Mondoux, MS, RN, CS	Consultant, Strategy Long Term Care, Farmington Hills
Mary Ellen Risch	Director of Nursing Resources, Sinai Grace Hospital, Detroit
Sandy Szekely	Nurse Development Specialist, Oakwood Hospital, Dearborn

Office Information System

Shelley Boatright	Communications Manager, Little Caesar Enterprises, Inc., Detroit
Ree Taylor	Community Development Director, Forgotten Harvest, Southfield
Beverly Valente	Assistant Treasurer, City of Novi, Novi

Piano Teacher Certificate Program

Jean Candlish	Certification Board Committee, Michigan Music Teachers Association, Livonia
Alex Hanway	Vice President, Hammell Music, Livonia
Jean Schwartz	Piano Teacher Training Committee, Michigan Music Teachers Association, Livonia
Marilyn Sluka	Vice President, Michigan Music Teachers Association, Livonia

Senior Adult

Anita Herman, EdD	Chair, Department of Gerontology, Madonna University, Livonia
Sue Koivula	Coordinator, Senior Adult Services, Northville
Esie Mahaffy	Director, Wayne County RSVP, Detroit
Kathy Moore	Area Manager, Wayne County RSVP, Dearborn Heights
Karl Peters	Recreation Supervisor, Livonia Civic Park Senior Center, Livonia
Cheryl Stephanian	Senior Program Coordinator, Maplewood Community Center, Garden City
Roger Sutherland	Retired Professor, Biology, Schoolcraft College, Livonia

Wayne County Regional Police Academy

William Barron	Chief, Grosse Ile Police Department, Grosse Ile
Al Fincham	Chief, Grosse Pointe Department of Public Safety, Grosse Pointe
Daniel Grant	Chief, Brownstown Township Police Department, Brownstown Township
Victor Hess	Chief, Metro Parks Public Safety, Wayne County
Anthony Shannon	Director of Homeland Security, Wayne County, Detroit
Michael Sumeracki	Chief, Wayne Police Department, Wayne
Marwan Taleb	Deputy Chief, Wayne County, Detroit
Kym Worthy	Prosecutor, Wayne County, Detroit

Welding and Industrial Fabrication

Fred Ellicott	Retired Professor, CAD/Drafting, Schoolcraft College, Livonia
Charles Makins, Jr.	Maintenance Supervisor, Visteon Corporation, Ypsilanti
Larry Tatro	Vice President Sales, Welding Robotics & Automation, Plymouth Wayne Welding Supplies, Inc., Wixom
Robert Wilcox	Program Buyer, ASDE, Visteon Corporation, Allen Park

Women's Resource Center

Charlotte Adams	Member, Business and Professional Women, Retired Program Specialist, Office of Health Occupations, Board of Directors member, YWCA, Western Wayne County, Westland
Elizabeth Allen	Business Proprietor, Certified Financial Planner, Farmington Hills
Renee Boving, MD	Retired Professor of Anatomy, WSU School of Medicine, Volunteer and Peer Counselor, Women's Resource Center, Schoolcraft College, Livonia
Laura Callow	Women's Rights Advocate Member, Human Relations Commission Member, City of Livonia, Livonia
Mary Dumas	Past member of Board of Directors, YWCA Western Wayne County, former Wayne County Commissioner, Livonia
Dolly Ettenhofer	Stylist, Charisma Salon, Livonia
Dorothy Fobes	Retired Human Resource Specialist, Ford Motor Company, Plymouth
Elizabeth M. Johnson	Attorney-at-Law, Plymouth
Sue Mason	Editor, <i>Garden City Observer and Eccentric</i> , Westland
Vera McGregor	Retired Placement Specialist, Michigan Employment Security Commission, Inkster
Nancy Petrucelli	Realtor, Coldwell Banker, Plymouth.
Valda Vandersloot	Financial Advisor, Livonia City Clerk, Livonia
Margo Worley	Retired Assistant to a Financial Planner & Securities Coordinator, Michigan Financial Companies, Farmington Hills

Campus Phone Directory

Admissions—Schedules/Catalogs McDowell Center	734-462-4426	Human Resources Administration Building	734-462-4408
American Harvest Restaurant VisTaTech Center	734-462-4488	Information McDowell Center	734-462-4400
Athletics Physical Education Building	734-462-4400, Ext. 5564	Learning Assistance Center McDowell Center	734-462-4436
Bookstore Service Building	734-462-4409	Library Services Bradner Library	734-462-4440
Radcliff Center, Garden City	734-462-4778	Radcliff Center, Garden City	734-462-4400 ext. 6020
Business Development Center VisTaTech Center	734-462-4441	Marketing Department Administration Building	734-462-4417
Career Planning & Placement Center McDowell Center	734-462-4421	Media Center Bradner Library	734-462-4400, Ext. 5330
Cashier McDowell Center	734-462-4449	Office of Instruction Administration Building	734-462-4451
Children's Center off South Parking Lot	734-462-4442	Payroll McDowell Center	734-462-4400, Ext. 5368
Continuing Education Services—CES Continuing Education Center	734-462-4448	President's Office Administration Building	734-462-4420
Counseling McDowell Center	734-462-4429	Public Safety (Security) Service Building	734-462-4424
Development & Governmental Relations Administration Building	734-462-4463	Purchasing McDowell Center	734-462-4444
Disabled Student Services McDowell Center	734-462-4436	Radcliff Center Garden City	734-462-4770
Distance & Distributed Learning Bradner Library: Online & Video	734-462-4532	Student Accounts McDowell Center	734-462-4586
OMNIBUS	734-462-4599	Student Activities VisTaTech Center, Waterman Wing	734-462-4422
Open Entry/Open Exit	734-462-4588	Student Newspaper, <i>The Connection</i> VisTaTech Center, Waterman Wing	734-462-4422
Facility Rentals VisTaTech Center	734-462-4475	Student Refunds McDowell Center	734-462-4430
Finance & Business Service McDowell Center	734-462-4416	Tennis Courts Tennis House	734-462-4434
Financial Aid McDowell Center	734-462-4433	Transcripts—Registrar McDowell Center	734-462-4480
Food Services VisTaTech Center, Waterman Wing	734-462-4471	Veterans Affairs McDowell Center	734-462-4400, Ext. 5213
Grade Reports—Registrar McDowell Center	734-462-4430	Women's Resource Center McDowell Center	734-462-4443
Hearing Impaired Phone Lines Livonia	734-462-4437		
Radcliff Center, Garden City	734-462-4773		

Index

- A**
- Academic Policies 33
 - Academic Probation and Dismissal 34
 - Advanced Placement/CLEP 34
 - Appeals Procedure for Academic Matters 35
 - Attendance Procedures 33
 - Course Load 33
 - Credit Hours 33
 - Student Records 34
 - Academic Skills Workshops for College Students 20
 - Academic Support Services 19
 - Archives 21
 - Assessment Center 21
 - Career Planning and Placement Center 19
 - Computer Labs 22
 - Counseling Center 19
 - Learning Assistance Center 20
 - Libraries 21
 - Registrar's Office 19
 - Women's Resource Center 22
 - Accounting 44–45, 84
 - Accreditation 3
 - Administrators 144
 - Admission to the College 9
 - Admissions Process 9
 - Application for Admission and ReAdmission 161
 - Campus Tours 10
 - Guest Students at Schoolcraft College 10
 - High School Enrollment Options 9
 - International Students 10
 - Readmission of Former Students 10
 - Advanced Placement/CLEP 34
 - Advisory Committees 152
 - Agreements with Senior Institutions 42
 - Alcoholic Beverages 28
 - Allied Health Education 84
 - Anthropology 85
 - Application for Admission Form 161
 - Archives 21
 - Articulation Agreements 43
 - Art and Design 85–86
 - Assessment Center 21
 - Business and Industry Assessment Service 21
 - CLEP (College-Level Examination Program) 21
 - DANTES Subject Standardized Tests (DSST) 21
 - Distance and Distributed Learning Tests 21
 - GED (General Educational Development Tests) 21
 - Make-up Tests 21
 - Placement Testing 21
 - Test Proctoring 21
 - Associate Degree 38
 - Associate in Arts 40
 - Associate in Applied Science 40
 - Associate in Engineering 40
 - Associate in General Studies 40
 - Associate in Science 40
 - Athletics 26
 - Eligibility 34
 - Physical Education, Health and Recreation 136–137
 - Attendance 16
 - Policy for Receiving Financial Aid 16
 - Audit a Class 33
 - Policy for Receiving Financial Aid 17
 - Aviation Business Management 86
- B**
- Biology 87–88
 - Biomedical Engineering Technology 45–46, 88
 - Board of Governors 5
 - Board of Trustees 4
 - Bookstores 25
 - Broadcast Communications 46
 - Business 47, 89–90
 - Business-General 47
 - OMNIBUS 47–48
 - Business Development Center 32
 - Business Assistance Services 32
 - Contract Customized Training 32
- C**
- Campus Life 25
 - Athletics 26
 - Bookstores 25
 - Children's Center 25
 - Food Service 25
 - Health Emergencies 25
 - Health Insurance 25
 - Performing Arts Groups 26
 - Phi Theta Kappa Honor Society 26
 - Physical Fitness Facility 26
 - Student Activities Office 26
 - Clubs and Organizations 26
 - Student Identification 25
 - Campus Map. Inside back cover
 - Campus Phone Directory 156
 - Campus Tours 10
 - Canceled Classes 28
 - Career Planning and Placement Center 19
 - Career Counseling 19
 - Employment Services 19
 - Career Programs 43
 - Certificates of Program Completion 36
 - Change of Curriculum or Program 40
 - Chemistry 90
 - Children's Center 25
 - Child and Family Services 49–51, 91–92
 - Child Care - Family Support 51
 - Child Care - Special Needs Paraprofessional 50
 - Child Care and Development 49
 - Child Care and Development Associate 47, 49
 - CHIPS, From Chocolate Chips to Micro Chips to Blue Chips 23
 - Classification of Students 33
 - Classroom Conduct 29
 - CLEP (College-Level Examination Program) 21
 - Clubs and Organizations 26
 - Coding Specialist Certification 71
 - College Closing 29
 - Collegiate Skills 93
 - Commencement. *See* Graduation
 - Communication Arts 94
- D**
- Community Services 32
 - Business Development Center 32
 - Facility Rentals 32
 - Company-Paid Tuition and Fees 11
 - Computer Aided Design 52, 94–95
 - Computer Aided Design/Mechanical 52
 - Computer Aided Design/Tool Design 52
 - Computer Aided Drafting 53
 - Computer Aided Drafting, Electromechanical 53
 - Computer Aided Drafting, Technical 53
 - Computer Assisted Manufacturing 53, 95
 - Computer Graphics Technology 54–55, 96–99
 - Computer Information Systems 56–58, 99–103
 - Introductory 57
 - Microcomputer Support Technician 56
 - Networking Specialist Netprep 57
 - Programming 56
 - Web Specialist 58
 - Computer Service 59, 103
 - Connection, The: Student Newspaper 26
 - Continuing Education Services (CES) 33
 - Kids on Campus 32
 - Contract Customized Training 32
 - Core Skills (previously General Education Goals) 38
 - Correctional Science 104
 - Cosmology Management 59
 - Counseling Center 19
 - Course Descriptions 83
 - Course Index 83
 - Course Fees 11
 - Course Load 33
 - Credit by Examination 34
 - Credit Hours 33
 - Criminal Justice 60, 104
 - With Academy 60
 - Culinary Arts 61, 105–106
 - Brigade Advanced Skills 62
 - Culinary Arts Program Advanced 106–108
 - Culinary Baking and Pastry Arts 62, 108
 - Culinary Management 63, 108–109
- D**
- DANTES Subject Standardized Tests (DSST) 21
 - Daycare. *See* Children's Center
 - Dean's List: Academic Recognition 34
 - Degree Requirements 36
 - Design 109
 - Disabled Students 20, 29
 - Distance and Distributed Learning 31
 - OMNIBUS 31
 - Online Courses 31
 - Open Entry/Open Exit Classes 31
 - Doc-U-Center 23
 - Drafting. *See* Computer Aided Drafting
 - Drafting and Design 110
 - Dropped Classes. *See* Withdrawal from College or Classes
 - Drugs and Narcotics Policy 29

E

Economics 110
 Education 63
 Educational and Community Services 32
 Business and Industry Assessment Service 21
 Business Development Center 32
 Facility Rentals 32
 Electricity, Electronics, Electronics 110–112
 Electronic Technology 64
 Elementary Education Transfer Program 63.
 See also Transfer Programs Information
 Emergency Medical Technology 65, 112–113
 Emeritus-Honoraire Employees 150
 Energy Specialist 66
 Engineering 40, 66, 113
 Engineering Transfer Program.
 See also Transfer Programs Information
 English 113–115
 English as a Second Language 115
 English Language Proficiency 20
 Environmental Technology 67–68, 115
 Equity in Athletics Disclosure Act 29
 Equivalency Credit 34

F

Facility Rentals 32, 156
 Faculty Lists. *See also* Personnel
 Adjunct, Part-Time 149
 Full-Time 144
 Family Educational Rights and Privacy Act (FERPA) 28
 Fees and Tuition 11
 Financial Aid 12
 Academic Progress Policy 17
 Application Process 14
 Cost of Attendance 15
 Grant Programs 13
 Return of Title IV Funds 16
 Scholarships 12
 Student Employment 13
 Federal Work-Study 13
 Michigan Work-Study 13
 Student Loan Programs 13
 Study Abroad, Financial Aid 16
 Financial Obligations 29
 Fire Technology 68–69, 116–117
 With Academy 68–69
 Food Service 25
 Foreign Students. *See* International Students
 Former Students 10
 Foundation Board of Governors 5
 French 117

G

GED (General Educational Development Tests) 21
 General Education Goals. *See* Core Skills
 Geography 118
 Geology 119
 German 119
 Goals. *See* Core Skills
 Grade-Point Average 35
 Grades
 Financial Aid 17
 Grade Reports 34
 Graduation 36
 Certificates of Program Completion 36
 Degree Requirements 36
 Intent to Graduate 37
 Multiple Degree Requirements 36
 Procedures 37
 Grant Programs 13
 Guest Students 10

H

Health Emergencies 25
 Health Information Technology 70–71, 120–121
 Coding Specialist Certification 71
 Health Insurance 25
 High School Enrollment Options 9
 High School Dual Enrollment 9
 High School Special Enrollment 9
 History 122
 Honors College. *See* Schoolcraft Scholars
 Honor Society. *See* Phi Theta Kappa
 Humanities 123–124
 Human Development Services 122
 Hybrid Courses 32

I

Incomplete Grade 34
 Independent Learning 31
 Instructional Alternatives 31
 Distance and Distributed Learning 31
 Hybrid Courses 32
 Independent Learning 31
 OMNIBUS 31
 Online Courses 31
 Open Entry/Open Exit Classes 31
 Schoolcraft Scholars 32
 Instructional Support Services 23
 Doc-U-Center 23
 Media Services 23
 Intent to Graduate 37
 International Education 124
 International Students 10

K

Kids on Campus.
 See Continuing Education Services (CES)

L

Laser Technology 71, 124
 Learning Assistance Center 20
 Academic Skills Workshops for College Students 20
 Disability Services 20
 English Language Proficiency 20
 Math Videos 20
 Mentoring Program 20
 MICUP-University Bound 20
 PAL Program 20
 Study Skills 20
 Test Preparation 20
 Tutoring 20
 Writing Fellows 20
 Learning Resources 125
 Libraries 21
 Loan Programs 13
 Lost and Found 29

M

MACRAO Articulation Agreement 43
 Manufacturing 72, 125
 Map, Campus. Inside back cover
 Marketing and Applied Management 72
 Mathematics 125–126
 Media Services 23
 Medical Assisting 73, 127
 Medical Records. *See* Health Information Technology
 Medical Transcription 74, 127
 Mentoring Program 20
 Metallurgy and Materials Science 74–75, 128
 Applied Physical 75
 Materials Science 75
 MICUP-University Bound 20
 Mission of the College 7
 Multiple Degree Requirements 36
 Music 76–77, 129–132
 Foundations 76
 Intermediate 76
 Piano Teacher Certificate Program 76
 Recording Technology 77

N

Networking Specialist.
 See Computer Information Systems
 Non-Native English Speaking Students 10
 Nonresident Status 11
 Nursing 78–79, 134, 138
 Associate Degree Nursing, Registered (ADN) 78
 Licensed Practical Nursing 79, 138

O

Occupational Therapy Assistant 135
 Office Information Systems 79–80, 135
 OMNIBUS 31, 47–48
 Online Courses 31
 Open Entry/Open Exit Classes 31

P

Parking 29
 Peer-Assisted Learning (PAL) Program 20
 Performing Arts Groups 26
 Personnel 143
 Administrators 144
 Emeritus-Honoraire Employees 150
 Faculty, Adjunct Part-Time 149
 Faculty, Full-Time 144
 Support Staff 147
 Philosophy 136
 Phi Theta Kappa Honor Society 26
 Phone Directory 156
 Physical Education 136–137
 Physical Fitness Facility 26
 Physics 137
 Piano Teacher Certificate Program 76
 Political Science 138

Post-Associate Certificates
 Biomedical Applications 46
 Brigade Advanced Culinary Skills 62
 Computer Graphics Technology 54
 Computer Information Systems 57
 Culinary Arts-Brigade Advanced Skills 62
 Culinary Management 63
 Materials Science 75

Pre-Associate Certificates 43
 Accounting 44
 Basic Business 47
 Child Care, Family Support 51
 Child Care, Special Needs Paraprofessional 50
 Child Care and Development 49
 Child Development Associate (CDA) 50
 Computer Aided Drafting-Electro-Mechanical 53
 Computer Aided Drafting-Technical 53
 Computer Graphics Technology 54
 Computer Graphics Technology, Foundation 54
 Computer Information Systems-Introductory 57
 Computer Information Systems-
 Networking Specialist 57
 Computer Service Technician 59
 Culinary Arts 61
 Culinary Baking and Pastry Arts 22
 Electronics Service 64
 Emergency Medical Technology 65
 Energy Specialist 66
 Firefighter Technology 69
 Health Coding Specialist 71
 Laser Technology 71
 Medical Assisting 73
 Medical Transcription 74
 Metallurgy, Applied Physical 75
 Music, Foundations 76
 Music, Intermediate 76
 Music, Recording Technology 77
 Nursing, Licensed Practical 79
 Office Information Systems 80
 Piano Teacher 76
 Welding-Fabrication 81

Privacy Rights of Student 28
 Program List 160
 Psychology 139

Q

Quality Management 139

R

Readmission of Former Students 10
 Recording Technology. *See* Music
 Refund Policy
 Credit Classes 11
 Title IV Funds 16
 Registrar's Office 19
 Repeated Course 34
 Resident and Nonresident Status 11
 Return of Title IV Funds 16

S

Scholarships 12
 Schoolcraft Scholars 32
 Senior Adults Tuition Waiver 11
 Small Business Management 80
 Smoking 29
 Sociology 140
 Solicitation of Funds 29
 Spanish 140
 Special Populations Program.
See Women's Resource Center
 Staff. *See* Personnel
 Students' Right-To-Know and Campus Security Act 29
 Students with Disabilities 29
 Student Activities Office 26
 Student Disciplinary Standards Committee 29
 Student Employment. *See* Financial Aid
 Student Identification 25
 Student Newspaper, The Connection 26
 Student Privacy Rights 28
 Student Records 34
 Student Rights and Responsibilities 28
 Study Abroad, Financial Aid 16
 Substitution, Course Waiver 40
 Support Staff 147

T

Test Preparation Workshops 20
 Theatre 81, 140
 Title IX 29
 Traffic Regulations 29
 Transcripts 34
 Transfer Programs Information 42
 MACRAO Articulation Agreement 43
 Transfer Programs
 Accounting 45
 Pre-Elementary Education 63
 Pre-Engineering-Mechanical 66
 Theatre 81
 Transfer Scholarships 15
 Tuition and Fees 11
 Tutoring. *See* Learning Assistance Center

V

Veterans Affairs 14

W

Waiver, Course Substitution 40
 Weather, College Closing 29
 Welding Technology 81, 141
 Preparation for Welding Certification Examinations 142
 Withdrawal from College or Classes 34
 Return of Title IV Funds and Unearned Financial Aid 16
 Women's Resource Center 22
 CHIPS 23
 Divorce Support Group 23
 Luncheon Series 23
 Scholarships 12, 22
 Special Populations Program 13, 22
 Work-Study, Federal and Michigan 13
 Writing Fellows 20

Do you have limited English Proficiencies?

Schoolcraft College assures that the lack of English skills will not be a barrier to admission into instructional programs. Information in the catalog and schedule of classes is available to limited English proficient students. Please contact Dr. D. Daiek, Learning Assistance Center, 734-462-4436, if you have further questions.

For Spanish Speaking Persons:

Si usted quiere recibir esta información en español, favor de llamar a la Dra. D. Daiek, 734-462-4436. El colegio universitario de Schoolcraft asegura que la falta de habilidad en inglés no será impedimento para personas que quieran ingresar.

About this Catalog

Schoolcraft College has published this Catalog for information purposes only and its contents do not constitute a contract between this institution and prospective or enrolled students.

The information contained in this general College Catalog reflects the current curricula, policies and regulations of the College. However, these are subject to change at any time by action of the Board of Trustees or the administration.

It is the policy of Schoolcraft College that no person shall, on the basis of race, color, national origin, gender, age, marital status, or handicap, be excluded from participating in, be denied benefits of, or be subjected to discrimination during any program or activity or in employment.

Produced by Marketing

In cooperation with the offices of Instruction and Enrollment Management.

Program List

LETTERS AND NUMBERS EQUAL SCHOOLCRAFT PROGRAM CODE

Please select a program code that closely matches your potential field of study.
You may change your program code at any time in the Registrar's Office.

Legend

AA = Associate in Arts
AAS = Associate in Applied Science
AE = Associate in Engineering
AGS = Associate in General Studies
AS = Associate in Science
PAC = Post-Associate Certificate
1YC = One Year Certificate

Certificates

Business Certificate	Program Code
Accounting.....	1YC.00001
Basic Business.....	1YC.00002
Computer Information Systems	1YC.00004
Networking Specialist—NetPrep.....	1YC.00270
Web Specialist	1YC.00241
Office Specialist.....	1YC.00166
Health Certificate	Program Code
Coding Specialist.....	1YC.00240
Medical Assisting ¹	1YC.00026
Medical Transcription ¹	1YC.00029
Nursing—Licensed Practical ¹	1YC.00017
Public Service Certificate	Program Code
Child Care—	
Child Care and Development.....	1YC.00031
Family Support	1YC.00143
Special Needs Paraprofessional	1YC.00032
Child Development Associate.....	1YC.00034
Emergency Medical Technology	1YC.00024
Firefighter Technology	1YC.00149
Technology Certificate	Program Code
Computer Aided Drafting—	
ElectroMechanical.....	1YC.00118
Technical.....	1YC.00119
Computer Graphics Technology	1YC.00136
Foundation.....	1YC.00164
Computer Service Technician.....	1YC.00159
Culinary Arts ¹	1YC.00079
Culinary Baking and Pastry Arts.....	1YC.00247
Electronics Service.....	1YC.00125
Energy Specialist.....	1YC.00156
Laser Technology	1YC.00059
Metallurgy—Applied Physical	1YC.00124
Music—	
Foundations.....	1YC.00162
Intermediate	1YC.00163
Recording Technology	1YC.00144
Piano Teacher.....	1YC.00115
Welding—Fabrication.....	1YC.00127

Associate Degrees

Business Associate Degree	Program Code
Accounting.....	AAS.00005
Computer Information Systems—	
Microcomputer Support Technician ...	AAS.00014
Programming	AAS.00012
Web Specialist	AAS.00275
Cosmetology Management.....	AAS.00010
General Business.....	AAS.00008
Marketing and Applied Management	AAS.00009
Office Administration	AAS.00133
Small Business Management	AAS.00011

Communications Arts Associate Degree	Program Code
Broadcast Communications	AA.00041

Health Associate Degree	Program Code
Health Information Technology ¹	AAS.00153
Nursing—Registered ¹	AAS.00000

Public Service Associate Degree	Program Code
Child Care—	
Child Care and Development.....	AAS.00020
Family Support	AAS.00243
Special Needs Paraprofessional	AAS.00021
Criminal Justice	AAS.00086
with Academy.....	AAS.00086
Emergency Medical Technology	AGS.00250
Fire Technology	AAS.00177
with Academy.....	AAS.00177

Technology Associate Degree	Program Code
Biomedical Engineering Technologist.....	AAS.00128
Computer Aided Design—Mech. Design ...	AAS.00170
Computer Aided Drafting—Tool Design ...	AAS.00140
Computer Assisted Manufacturing	AAS.00150
Computer Graphics Technology	AAS.00028
Culinary Arts ¹	AAS.00087
Electronics Technology	AAS.00120
Environmental Technology.....	AAS.00176
Manufacturing for Quality Production.....	AAS.00135
Metallurgy and Materials Science	AAS.00184
Music—Recording Technology	AAS.00244

Post-Associate Certificates ²

Biomedical Applications	PAC.00178
Computer Graphics Technology	PAC.00181
Computer Information Systems	PAC.00155
Culinary Arts—	
Brigade Advanced Skills	PAC.00288
Culinary Management	PAC.00157
Metallurgy—Materials Science	PAC.00179

Non-Degree Seeking00900

Financial aid not available for this option

Transfer Programs

Business Related	AA.00500
• Accounting	
• Advertising	
• Business Administration	
• Computer Science	
• Hotel Management	
Education.....	AA.00700
• Elementary	
• Secondary	
• Special	
Engineering.....	AE.00039
• Chemical	
• Civil	
• Computer Systems	
• Electrical	
• Environmental	
• Industrial	
• Materials Science	
• Mechanical	
Health Related	AA.00600
• Pre-Dental Hygiene	
• Pre-Dentistry	
• Pre-Medicine	
• Pre-Mortuary Science	
• Pre-Nursing	
• Pre-Occupational Therapy	
• Pre-Optometry	
• Pre-Pharmacy	
• Pre-Physical Therapy	
• Pre-Veterinary	
Liberal Arts	AA.00042
• Anthropology	
• Art	
• Biology	
• Chemistry	
• Communications	
• Conservation	
• Criminal Justice	
• Economics	
• English	
• Foreign Language	
• Geography	
• Geology	
• History	
• Mathematics	
• Music	
• Philosophy	
• Physics	
• Political Science	
• Psychology	
• Public Administration	
• Social Work	
• Sociology	
• Statistics	
• Theatre	

¹ Students must be officially admitted to the program prior to selecting core/major courses. Call the Office of Admissions, 734-462-4426 for more information.

² Prior Associate Degree in the program required. See current catalog for additional information.

SCHOOLCRAFT COLLEGE



Application for Admission and ReAdmission

✓ Applications are accepted throughout the year

applicationforadmissionapplicationforadmissionapplicationforadmission

Return your completed application to the Office of Admissions,
 Schoolcraft College, 18600 Haggerty Road, Livonia, Michigan
 48152-2696 **OR APPLY ONLINE!**

When do you plan to start school? (year)

- Summer Session (July–August)
- Winter Semester (January–April)
- Fall Semester (August–December)
- Spring Session (May–June)

1. NAME (Please use your name as it appears on your Social Security Card. If you do not have a Social Security Card, use your legal name.)

Last (Family Name)	First	Middle
Former Name	Former Name	

2. ADDRESS

Number and Street	PO Box or Apartment Number	
City	State	Zip Code

3. TELEPHONE

Home	Business	Ext.

4. E-MAIL

Your social security number and date of birth are used for identification purposes. The information in items 6, 7 and 8 is used to fulfill federal and state reporting requirements and is not used to determine admission to Schoolcraft College.

5. SOCIAL SECURITY NUMBER

6. DATE OF BIRTH

M	M	D	D	Y	Y

7. GENDER

- Female
- Male

8. ETHNICITY

- White
- Asian American
- American Indian or Alaskan Native
- Black or African American
- Hispanic or Latino
- Native Hawaiian or Other Pacific Islander
- Other

9. CITIZENSHIP

- USA
- Non-US Indicate your status below and provide requested information. You will need to submit documentation for admission. Contact the Office of Admissions at 734-462-4426 for details.
- Permanent Resident—Resident Alien Number
- Refugee
- International Student—Visa Type
- Home Country

10. PROGRAM OF STUDY (A program code is required and can be changed at any time. See page 160 for program information.)

Program Code	Program Name
--------------	--------------

11. What is your primary educational goal at Schoolcraft College? (select one)

- 1 To take classes to earn a Certificate or Associate Degree
- 2 For personal enrichment
- 3 For vocational improvement
- 4 To take classes leading to a Bachelor's Degree
- 5 Other

12. Please tell us your SINGLE most important reason for selecting Schoolcraft College? (select one)

- 1 Cost
- 2 Location
- 3 Class Size
- 4 Reputation
- 5 Programs

13. EDUCATIONAL BACKGROUND

High School	State if US, city	if non-US, country
High school Diploma? <input type="radio"/> Yes—Graduation Date: _____ / _____ / _____ (month and year)	<input type="radio"/> No	Did you receive a GED? <input type="radio"/> Yes—GED Date: _____ / _____ / _____ (month and year)
	<input type="radio"/> No	<input type="radio"/> No

List all colleges previously attended; list most recent first. Check the appropriate degree earned. If you did not earn a degree, indicate the number of credit hours earned.

College/University	Degree Earned:	<input type="radio"/> Associate <input type="radio"/> Bachelor's <input type="radio"/> Master's <input type="radio"/> PhD	<input type="radio"/> No Degree Number of credit hours: _____	City State if non-US, Country Number of classes successfully completed: _____
--------------------	----------------	------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------	----------------------------------------------------------------------------------------

College/University	Degree Earned:	<input type="radio"/> Associate <input type="radio"/> Bachelor's <input type="radio"/> Master's <input type="radio"/> PhD	<input type="radio"/> No Degree Number of credit hours: _____	City State if non-US, Country Number of classes successfully completed: _____
--------------------	----------------	------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------	----------------------------------------------------------------------------------------

College/University	Degree Earned:	<input type="radio"/> Associate <input type="radio"/> Bachelor's <input type="radio"/> Master's <input type="radio"/> PhD	<input type="radio"/> No Degree Number of credit hours: _____	City State if non-US, Country Number of classes successfully completed: _____
--------------------	----------------	------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------	----------------------------------------------------------------------------------------

I certify that all the answers in this application are complete and accurate to the best of my knowledge. I understand that falsifying any part of this application may result in cancellation of admission and/or registration. I agree to become knowledgeable about Schoolcraft College's rules and regulations and abide by them.

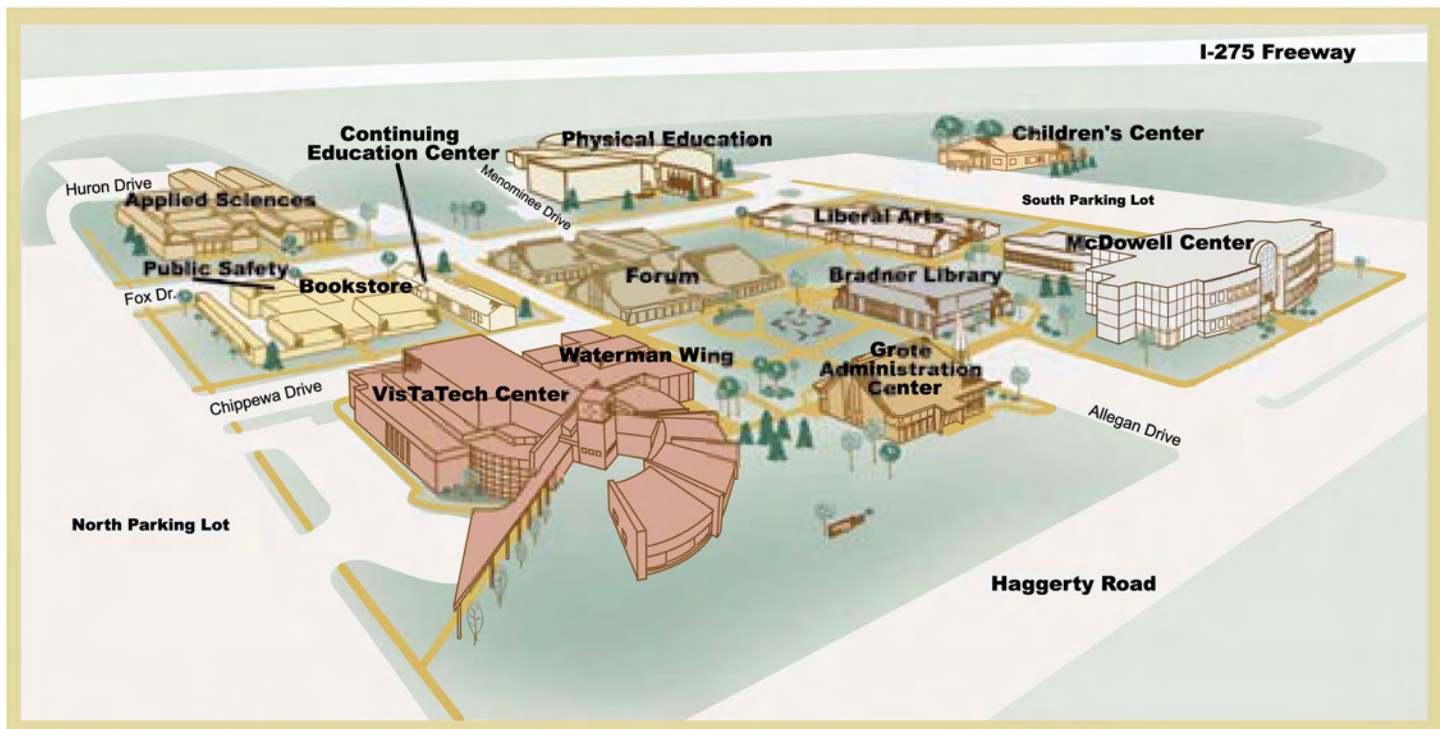
Any student requiring accommodations information for a disability, please contact the Learning Assistance Center at 734-462-4436.

Signature of Applicant _____ Date of Application _____

It is the policy of Schoolcraft College that no person shall, on the basis of race, color, national origin, gender, age, marital status, creed or handicap, be excluded from participating in, be denied benefits of, or be subjected to discrimination during any program or activity or in employment.

**Office of Admissions
 Schoolcraft College
 18600 Haggerty Road
 Livonia, MI 48152-2696
 Phone: 734-462-4426
 Fax: 734-462-4553**

Campus & Area Maps



Applied Sciences Building

Associate Dean—
Corporate Services and Technology
Business Programs
Computer Programs
Classrooms
Computer Graphics Technology
Nursing
Open Entry/Open Exit Lab
Technology Programs

Bookstore

Continuing Education Center

Children's Center

Forum Building
Art Programs
Associate Dean—Sciences
Classrooms
Forum Recital Hall
Music Programs
Science Programs

Grote Administration Center

Dean of Educational Services
Development & Governmental Relations
Human Resources
Marketing Department
Office of Instruction
Office of the President
Schoolcraft Foundation

Liberal Arts Building

Associate Dean—
Liberal Arts/Independent Learning
Classrooms
Liberal Arts Programs
Theatre

Library

Archives
Distance & Distributed Learning

McDowell Center

Admissions
Assessment Center
Career Planning & Placement
Cashier
Classrooms
Computer Labs
Counseling
Finance & Business Services
Financial Aid
Grants & Research
Learning Assistance Center
Office of Enrollment Management
Purchasing
Registrar
Registration Center

Student Accounts
Testing Services
Women's Resource Center

Physical Education Building

Service Building

Lost & Found
Facilities Management
Public Safety (Security)

VisTaTech Center

American Harvest Restaurant
Business Development Center
Classrooms
Culinary Arts Program
Main Street Café

Waterman Wing

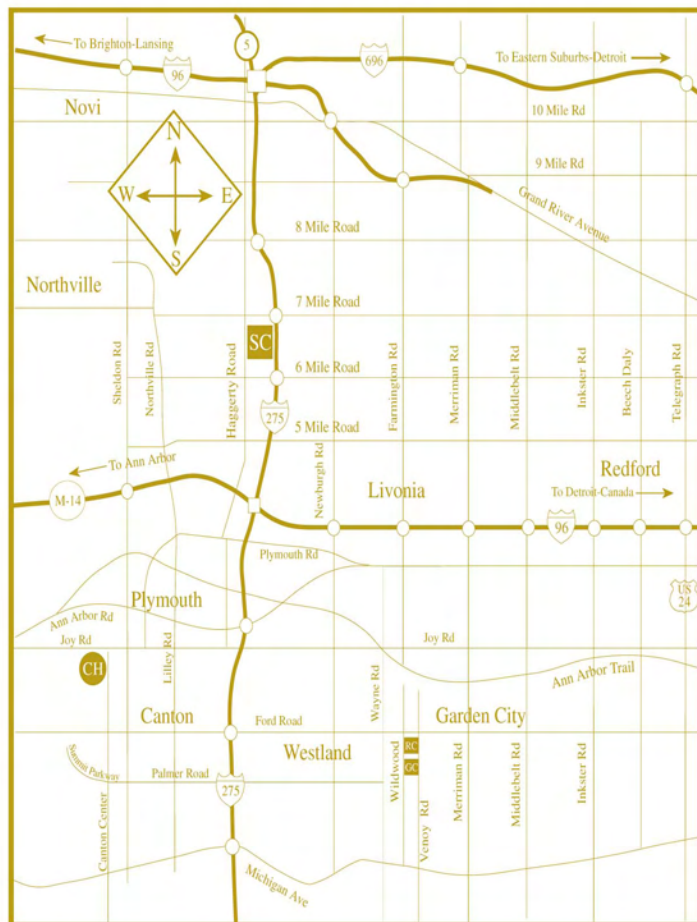
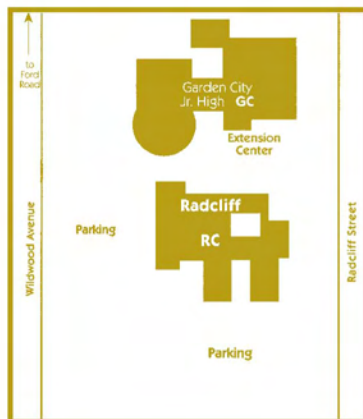
Henry's Food Court
Food Service
Meeting Rooms
Recreational Areas
Student Activities
Student Clubs
Study Area

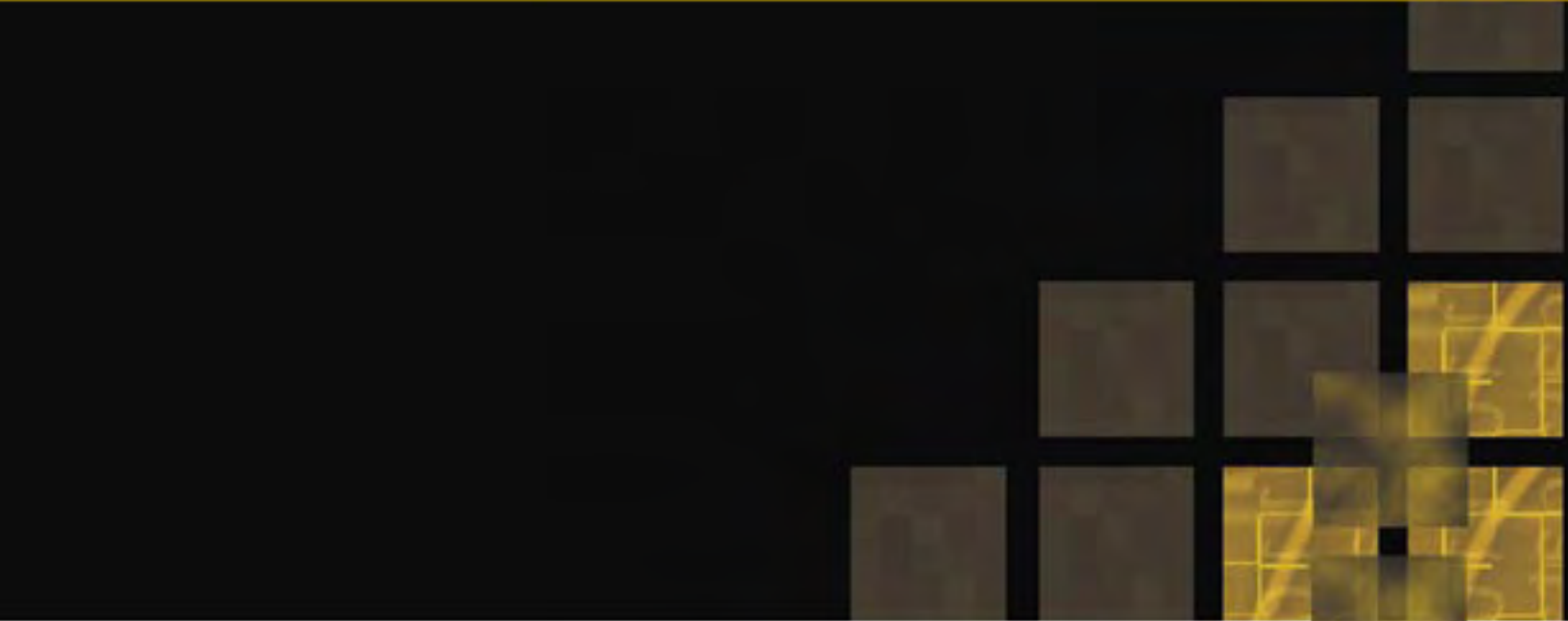
Area Map

Schoolcraft Campus
18600 Haggerty Road
Livonia, MI 48152-2696
734-462-4400

Radcliff Center

1751 Radcliff Street
Garden City, MI 48135
734-462-4770





Schoolcraft College
18600 Haggerty Road
Livonia, Michigan 48152-2696
734-462-4400
www.schoolcraft.edu

