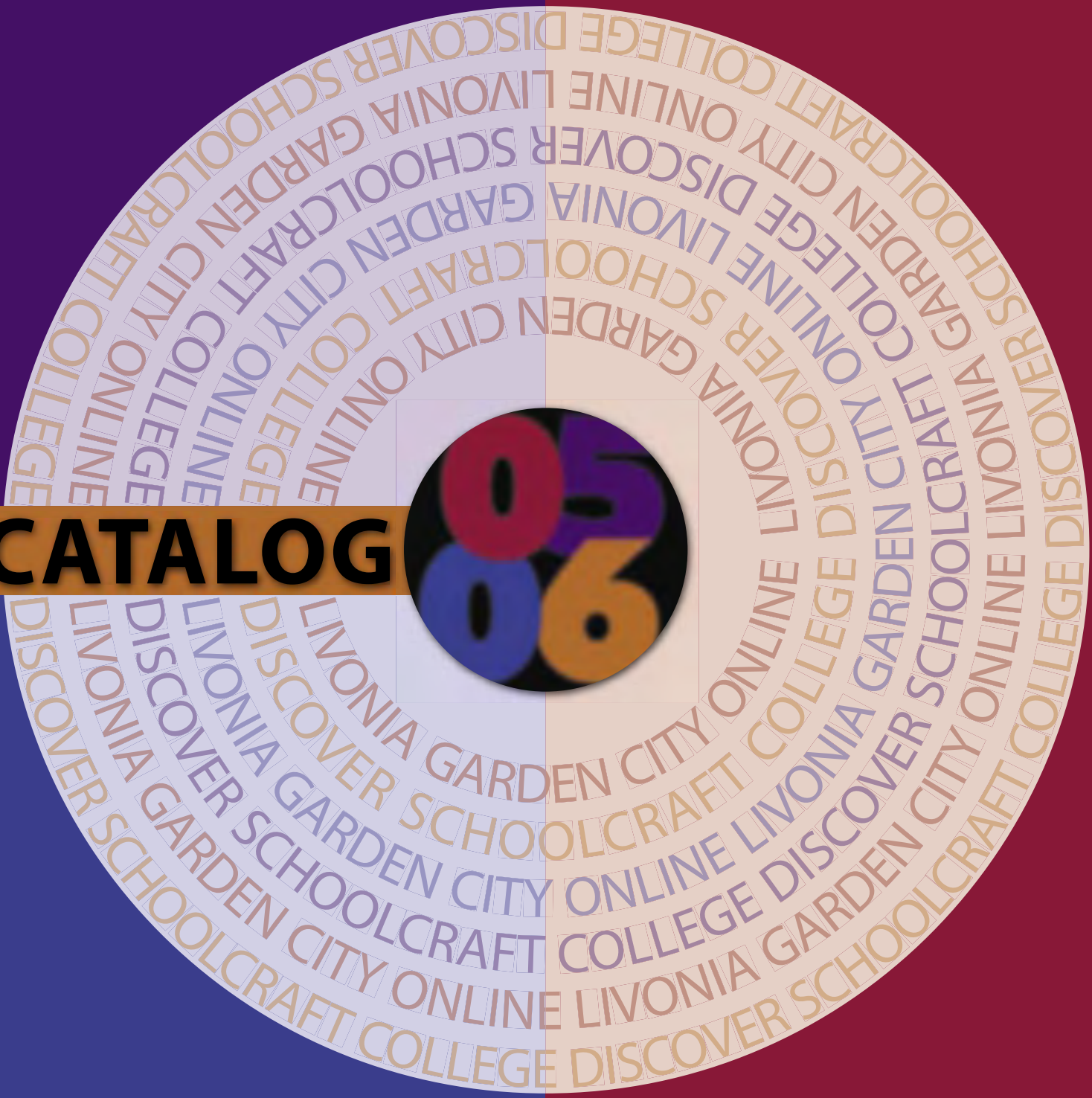
Schoolcraft College

CATALOG 2025 2026



New Student Checklist

- ❑ **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. Your Student Number is: _____
- ❑ **Visit our campus.** Call 734-462-4426 to schedule a guided campus tour.
- ❑ **Submit transcripts.** Send your official high school transcripts and/or GED scores and any college transcripts to the Office of Admissions.
- ❑ **Explore financial aid and scholarship opportunities.** Apply online at www.fafsa.ed.gov and list the Schoolcraft College code—002315.
- ❑ **Send in your ACT scores or take a placement test.** If you have taken an ACT test within the last three years, send your scores to the College. If not, placement testing is available in the Testing/Assessment Center. Call 734-462-4806.
- ❑ **Attend an orientation session.** Visit or call the Counseling Center at 734-462-4429 to make a reservation.
- ❑ **Meet with an advisor/counselor.** Visit or call the Counseling Center at 734-462-4429.
- ❑ **Register for classes.** Go online, call 734-462-4800, or visit the Registrar's Office.
- ❑ **Choose a payment method.** Pay for classes online, by phone at 734-462-4449, or in person at the Cashier's Office. Payment arrangements must be made the same day you register.
- ❑ **Get a student identification card at the Office of Admissions.** Bring picture identification and a copy of your current class schedule.
- ❑ **Enjoy your classes and have fun!**

www.schoolcraft.edu

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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' Web site 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 517-322-3966.
- 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

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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 use the tools of knowledge. This is a place to learn and enjoy the experience.

Conway A. Jeffress, Ph.D.
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: John Walsh, Maureen Foley, Secretary; Mary Breen, Charlie McIlhargey, President Elect; Tom Marek, President; Conway A.Jeffress, Ex-officio Member; Elaine Koons, George Grafe

Back row from left to right: Larry White, John Weyer, Jim Jabara, Abe Munfakh, Doug Shaeffer, Ed Schulz, Treasurer; Mike Polsinelli, John Bowen, John Allie, John Santeiu, Jason Valente

Not pictured: Jim Bardy, John Elkins, Marc Israel, Mary Ellen King, Michelle Plawecki, Vice President; Jane Thomas

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	
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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 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 charities.

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.

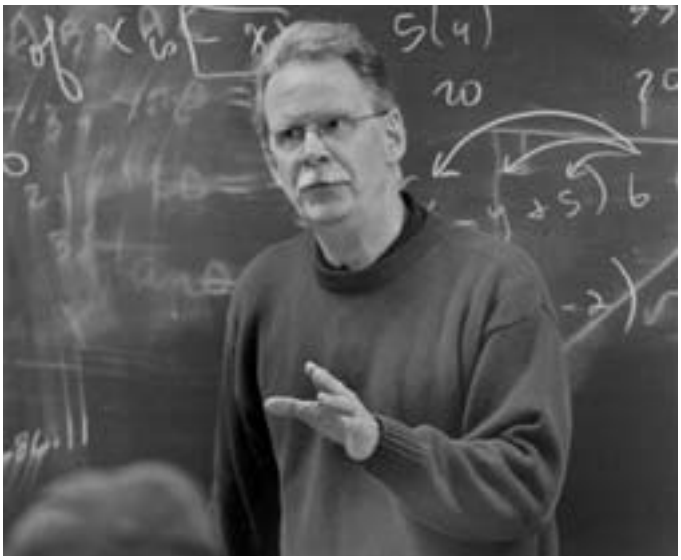
Community Resource

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 a variety of activities, 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 event spaces are the perfect venue for meetings, events, conferences and seminars. 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 intellectual and economic 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 interviews 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. Credits 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

Schoolcraft College's goal 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 test may take alternative assessment tests given by the College.

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. Foundation courses also may be taken by students who wish to review and strengthen their skills. Descriptions of the following foundation courses are listed in the catalog.

BIOLOGY 050
CHEMISTRY 051
COLLEGIATE SKILLS 050
MATH 045
COLLEGIATE SKILLS 053
MATH 047
COLLEGIATE SKILLS 055
MATH 053
ENGLISH 050
MATH 055
ENGLISH 055
PHYSICS 051

ENGLISH AS A SECOND LANGUAGE 051
ENGLISH AS A SECOND LANGUAGE 052

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 and winter semesters or spring sessions. 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 form 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 grade-point average) 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, www.schoolcraft.edu to obtain an international student packet and Application for Admission.

F-1 visa students must maintain full-time enrollment to fulfill United States Citizenship and 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 and winter semesters and spring and summer sessions. Also, non-credit classes are available through the English Language Institute.

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 full-time study. For example, a visitor status (B-2, B-1, WT or WB) does not allow full-time study. Also, someone with 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 must 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 to 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 schedule by mail 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 tuition payment plan, administered by FACTS Management Company, also is available. The plan allows students to pay their tuition and fees in several installments. Installment payments are payable via credit card (Master Card, American Express and Discover) or via electronic withdrawal from a savings or checking account. There is a separate enrollment fee for the tuition payment plan administered by FACTs Management Company. 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

The student's residency status determines the tuition rate.

- 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 Admissions Office.
- 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 18 years or older, 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 and 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

Students will receive a refund if they drop a class before the last day of late registration using either touchtone registration, WebAdvisor or by completing a Request for Refund form available in the Registrar's office or at Radcliff Center's main office. See the calendar in the current Schedule of Classes for refund dates. Registration fees are non-refundable unless the class is canceled by the College. Credit card payments made online through WebAdvisor will be credited to the account used for payment. All other refunds will be issued to the student by check. Allow four weeks after the last day of late registration to receive your refund.

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 a Request for Exception in the Registrar's office. Documentation indicating the circumstances must be submitted. Such requests will be reviewed by the Exception 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
salliemae.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 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 and their ACT scores. 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. Each academic year the federal government 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 pays for a maximum of 24 credits each academic year. Allowable costs are limited to resident tuition, registration fees and instructional equipment fees. Students must enroll in at least six credit hours per semester.

Women's Resource Center Special Populations Program

The Special Populations Program, administered through the Women's Resource Center (WRC), 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

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

Michigan Work-Study

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 on the Financial Aid page. 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 Room 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 2005–2006 academic year, apply on or after January 1, 2005 for summer and fall 2005, and winter and spring 2006.

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. Eligibility for financial aid assistance cannot be determined until all requested documentation is on file. Students are notified in writing of their eligibility status. Files are reviewed based on the date of completion. See the following priority dates.

Priority dates for award notification

Semester	Submit FAFSA by	Financial aid file complete by
SUMMER 2005	February 1, 2005	April 1, 2005
FALL 2005	May 1, 2005	July 1, 2005
WINTER 2006	September 1, 2005	November 1, 2005
SPRING 2006	January 1, 2006	March 1, 2006

   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.

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 in order to determine financial aid. 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	$1,862	$2,644
Books and supplies	$996	$996
Transportation	$1,404	$1,404
Miscellaneous	$1,020	$1,020
Room and board	$4,800	$4,800
Total	**$10,082**	**$10,864**

Figures are based on 2004–2005 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

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 a probationary period of financial aid to move toward acceptable grade-point average 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 grade-point average and completion rate requirements. The student will be reinstated without probation.
- The student meets the grade-point average 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, W, NC 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.

** W = Withdrawal, I = Incomplete, NC = No Credit – repeated course*

7. Audit and Credit by Exam

Classes taken for audit or credit 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.
- 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 education, career and personal plans that are compatible with their life goals. Counselors are available by appointment or on a walk-in basis. Schedule early for best results. The Counseling Center can help you with:

Academic Choices

- Selecting a major or program of study.
- Creating an educational plan.
- Understanding certificate and degree requirements.
- Developing a strategy for selecting courses.
- Preparing to graduate.
- Making plans to transfer.

Personal Life Choices

- Managing the stress of school, work and personal commitments.
- Using time management skills to create an effective balance.

Career Opportunities

- Identifying and clarifying career goals.
- Connecting to resources for in-depth career counseling.
- Enrolling in a career decision making course—HDS 110.

Transfer Planning

- Meeting with representatives of four-year colleges and universities.
- Obtaining transfer guides.
- Using articulation agreements.
- Exploring transfer scholarships.
- Connecting with important transfer events.

New Student Orientations

Student orientation programs are designed to provide essential information and help ease the transition to college for new students. The Counseling Center provides orientation sessions in several formats including an online version. All entering students must complete an orientation session before registering for classes. Students can call the Counseling Center to arrange a convenient time for orientation.

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

Bradner Library as of fall 2005
Temporarily in 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), Bradner Library 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. Online tutoring is available at lactutor@schoolcraft.edu. 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.

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. This free program is specifically targeted at students whose goal is a bachelor's degree. 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 compact 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. The college also provides courses in ESL for traditional college credit. See page 132 for course descriptions.

Test Preparation

The LAC provides test preparation workshops that emphasize test taking strategies and alleviating test anxiety. Workshops are available for 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 un-timed 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 prior learning, individuals must achieve the minimum scaled score recommended by the American Council on Education. Pre-registration 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 earn 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 pre-registration. 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, candidates must be at least 18 years old, and their high school class must have graduated. GED testing takes place on a designated Wednesday and Thursday of each month, excluding December. Pre-registration is required. Contact the Assessment Center for information and a registration brochure.

Test Proctoring Site

The Assessment Center is available by appointment 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. In addition to an extensive collection of books and periodicals, Bradner Library on the Livonia campus and the Radcliff Library in Garden City provide online access from home and on campus to a variety of academic resources including partial and full text periodical databases, newspapers, ebooks, almanacs, encyclopedias, the Schoolcraft library catalog and the Michigan Library Exchange virtual catalog. The libraries also provide computers with Internet access for academic research on the World Wide Web.

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 instructor 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	8:30 a.m.–9 p.m.
Friday	8 a.m.–4 p.m.	8:30 a.m.–12:30 p.m. and 5 p.m.–9 p.m.
Saturday	Noon–5 p.m	8:30 a.m.–2 p.m.
Sunday	Noon–5 p.m.	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 has a small collection of Henry Rowe Schoolcraft materials, plus 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. 5147 for Livonia Campus
734-462-4400, ext. 6112 for Radcliff Center

Schoolcraft College offers its students access to 46 computer labs with more than 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 currently be enrolled 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.

For online classes, students must have a working knowledge of computers and the Internet.

Minimum Requirements:

- A PC computer system with a minimum of 128MB of RAM
- A 56K modem, DSL or cable modem
- An Internet Service Provider and a personal e-mail account
- A CD-ROM or CD/DVD
- Windows 98 or higher (Windows XP recommended)
- Internet Explorer 5.0 or higher, or Netscape 4.76 or higher
- Office 2000, XP or 2003

  Macintosh equivalents include:
  - OS 9.1 or higher
  - Office 98 for Mac or higher

Note: CIS 120, 180, 215, 225, OIS 165 and 265 require Office XP Professional.

Women's Resource Center

McDowell Center Room 225
734-462-4443

Hours: Monday 9 a.m.–7:30 p.m. and Tuesday–Friday 9 a.m.–4:30 p.m. Summer Hours (June and July): Monday–Friday 9 a.m.–4:30 p.m. Appointments are not required.

The Women's Resource Center (WRC) 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 for both walk-in and telephone clients. The peer counselors are specially trained to listen to and assist clients who wish to:

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

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 disabilities and non-traditional job seekers.

Divorce Support Group—Meets year round

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.

Money Matters in Divorce—October through May

The first Monday of each month, a certified divorce financial planner is available free of charge. The CDFP is available from 5–7 p.m. on a first-come, first-served basis.

Ask an Attorney—October through May

On the third Monday of each month, a lawyer is available for free consultations on family law. The attorney is 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 of dates and speakers are available in July and January.

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

Radcliff Center Room 120
734-462-4400, ext. 6039

Tuesday and Thursday 8 a.m.–4:30 p.m. or by appointment

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 and 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.

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 Admissions 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

Henry's in the VisTaTech Center, Waterman Wing
Options 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.–7:30 p.m., Friday: 7:30 a.m.–2 p.m.

Vending machines are located in every classroom building on the Livonia campus.

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.

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 high quality goods and services 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 all student service offices and from the Finance and Business Services office, 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. A schedule of open swim and fitness room hours is available in the PE Equipment Room or in the Athletics Office.

Athletics

734-462-4804

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
- Baptist Student Union Christian Challenge
- Beekeepers Club
- Campus Crusade for Christ
- Chess Club
- Edge Runners Ski Club
- Gourmet Club
- Habitat for Humanity
- Health Information Technology Club
- International Student Relations Club
- Music Club
- National Association for the Education of Young Children
- National Computer Graphics Association
- Otaku Anime Animation Club
- Phi Theta Kappa Honor Society
- Pride
- 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 Schoolcraft College Jazz Band and Schoolcraft College Community Wind Ensemble. The Schoolcraft College Choral Union 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.

Student Code of Conduct and Judicial Procedures

Preamble

Schoolcraft College exists to serve students and the surrounding community. The College is also a community, and students are important members of this community. Every student should know the responsibilities that students assume toward each other, faculty and staff as equal members of this community. 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.

The Student Code of Conduct defines a student's basic rights within the College community, states what actions students may expect from the College to protect those rights, and explains the

College's expectations of its student members, including the standards by which student behavior is measured.

Academic and Personal Behaviors

In consideration of the many rights of and responsibilities to each member of the College community, and in compliance with the requirements of local and state statutes, the Board of Trustees of Schoolcraft College hereby adopts the following regulations and prohibits all persons from engaging or participating in any of the practices or behaviors listed below. The following list is illustrative and not meant to be an exhaustive enumeration of inappropriate behavior.

1. Obstruction or disruption of teaching, research, administration, disciplinary procedures, or other activities, including the College's public service functions or other authorized activities, on College-owned or controlled property.
2. Physical abuse, assault or battery, or unauthorized detention of any person on College-owned or controlled property or at College-sponsored or supervised functions, and/or conduct or expression, verbal or written, which threatens or endangers the health or safety of any such persons.
3. Theft of or damage to College property.
4. Unauthorized entry or use of College facilities.
5. Violation of College policies or regulations concerning falsification of records, registration of organizations, or the use of College facilities.
6. Interference with the proper educational functions and the appropriate educational climate of the College by obscene actions or language or disorderly conduct, including aiding or abetting another to breach the peace on College-owned or controlled property or at College-sponsored or supervised functions.
7. Illegal use, possession or distribution of alcoholic beverages, narcotics, or controlled or illicit substances, or public intoxication.
8. Failure to comply with directions of College officials, Public Safety staff, or any other law enforcement officers acting in the performance of their duties.
9. Unauthorized obstruction of the free flow and orderly movement of pedestrian or vehicular traffic and serious or repeated violation of campus traffic rules and regulations.
10. Illegal or unauthorized possession or use of firearms, explosives, other weapons, dangerous chemicals, or improper use of fire extinguishers on College property. NOTE: Exceptions to possession or use of firearms are: a. certified law enforcement officers, b. students enrolled in Schoolcraft College classes requiring firearms training, c. College-owned firearms used for instructional purposes.
11. Violation of federal, state and local laws.
12. Acts of dishonesty, including but not limited to the following:
    a. Cheating, plagiarism or forms of academic dishonesty.
    b. Furnishing false information to any College official, faculty member or office.
    c. Forgery, alteration or misuse of any College document, record or instrument of identification.
13. Unauthorized possession, duplication or use of keys to any College premises or unauthorized entry to or use of College premises.
14. Participation in a campus demonstration which disrupts the normal operations of the College and infringes on the rights of other members of the College community; leading or inciting others to disrupt scheduled and/or normal activities within any campus building or area; intentional obstruction which unreasonably interferes with freedom of movement, either pedestrian or vehicular, on campus.
15. Conduct which is disorderly, lewd or indecent; breach of peace on College premises or at functions sponsored or participated in by the College.
16. Theft or other abuse of computer time, including but not limited to:
    a. Unauthorized entry into a file, to use, read or change the contents, or for any other purpose.
    b. Unauthorized transfer of a file.
    c. Unauthorized use of another individual's identification and password.
    d. Use of computing facilities to interfere with the work of another student, faculty member, College official, or employee.
    e. Use of the computing facilities to interfere with normal operation of the College computing system.
    f. Access to or distribution of obscene or pornographic materials.
17. Discrimination, harassment and offensive conduct against any person, student, or staff member on the basis of race, creed, color, sex, age, marital status, handicap, disability, and/or national origin. See College Policy 1080.
18. Abuse of the Disciplinary System, including but not limited to:
    a. Failure to obey the summons of the Student Disciplinary Standards Committee or a College official.
    b. Falsification, distortion or misrepresentation of information before the Student Disciplinary Standards Committee or Appellate.
    c. Disruption or interference with the orderly conduct of a hearing.
    d. Institution of a hearing or proceeding knowingly without cause.
    e. Attempting to discourage an individual's proper participation in, or use of, the Student Disciplinary System.
    f. Attempting to influence the impartiality of a member of the Student Disciplinary Standards Committee or Appellate before and/or during, and/or after a proceeding.
    g. Harassment, verbal or physical, and/or intimidation of a member of the Student Disciplinary Standards Committee or Appellate before, during, and/or after a proceeding.
    h. Failure to comply with the sanction(s) imposed under the Student Code.
    i. Influencing or attempting to influence another person to commit an abuse of the Student Disciplinary System.

Decisions and Judicial Authority

1. The Dean of Student Services shall:
   a. Determine the composition of the Student Disciplinary Standards Committee and shall act as the Appellate.
   b. Develop policies and procedural rules for the conduct of hearings which are consistent with provisions of the Student Code.
   c. Authorize the suspension of any student when the circumstances warrant immediate action, such as in the case of threatening or assaultive behaviors. The suspension will remain in effect until the Student Disciplinary Standards Committee meets to hear the case.
2. Decisions made by the Student Disciplinary Standards Committee shall be final, pending the normal appeal process.
3. The Student Disciplinary Standards Committee may be designated as arbiter of disputes within the student community in cases which do not involve a violation of the Student Code. All parties must agree to arbitration and be bound by the decision with no right of appeal.

Judicial Prodedures

Charges and Hearings

1. Any member of the College community may file charges against any student for misconduct. Charges shall be prepared in writing and directed to the Dean of Student Services. Any charge should be submitted as soon as possible after the event takes place.
2. The Dean of Student Services will designate an administrator to conduct an investigation to determine if the charges have merit and/or if they can be disposed of administratively by mutual consent of the parties involved. Such disposition shall be final, and there shall be no subsequent proceedings. If the charges cannot be disposed of by mutual consent, the designated administrator shall refer the matter to the Student Disciplinary Standards Committee.
3. All charges shall be presented to the accused student in written form. A time shall be set for a hearing, no less than five nor more than fifteen calendar days after the student has been notified. Maximum time limits for scheduling of hearings may be extended at the discretion of the chairperson of the Student Disciplinary Standards Committee.
4. If the accused student does not respond to the written notice of the hearing and does not appear, the hearing shall take place as scheduled. If the Student Disciplinary Standards Committee finds that the accused student violated the Student Code, sanctions may be imposed.
5. Hearings shall be conducted by the Student Disciplinary Standards Committee according to the following guidelines:
   a. Hearings normally shall be conducted in private. At the request of the accused student and subject to the discretion of the chairperson, a representative of the student press may be admitted, but shall not have the privilege of participating in the hearing.
   b. Admission of any person to the hearing shall be at the discretion of the chairperson of the Disciplinary Standards Committee.
   c. In hearings involving more than one accused student, the chairperson, at his or her discretion, may permit the hearings concerning each student to be conducted separately.
   d. The complainant and the accused have the right to be assisted by any advisor they choose, at their own expense. The advisor may be an attorney. The complainant and/or the accused is responsible for presenting his or her own case. Therefore, advisors are not permitted to speak or to participate directly in any hearing before the Student Disciplinary Standards Committee.
   e. The complainant, the accused, and the Student Disciplinary Standards Committee shall have the privilege of presenting witnesses subject to the right of cross examination by the Student Disciplinary Standards Committee.
   f. Pertinent records, exhibits, and written statements may be accepted as evidence for consideration by the Student Disciplinary Standards Committee at the discretion of the chairperson.
   g. All procedural questions are subject to the final decision of the chairperson of the Student Disciplinary Standards Committee.
   h. After the hearing, the Committee shall determine, by majority vote, whether the student has violated each section of the Student Code which the student is charged with violating.
   i. The Student Disciplinary Standards Committee's decision shall be made on the basis of whether it is more likely than not that the accused student violated the Student Code.
6. There shall be a single verbatim record, such as a tape recording, of all hearings before the Student Disciplinary Standards Committee. The record shall be the property of the College.
7. Except in the case of a student charged with failing to obey the summons of the Student Disciplinary Committee or College official, no student may be found to have violated the Student Code solely because the student failed to appear before the committee. In all cases, the evidence in support of the charges shall be presented and considered.

Sanctions

1. The following sanctions may be imposed upon any student found to have violated the Student Code.
   a. Warning—A notice in writing to the student that the student is violating or has violated institutional regulations.
   b. Probation—A written reprimand for violation of specified regulations. Probation is for a designated period of time and includes the probability of more severe disciplinary sanctions if the student is found to be violating any institutional regulation(s) during the probationary period.
   c. Loss of Privileges—Denial of specified privileges for a designated period of time.
   d. Restitution—Compensation for loss, damage or injury. This may take the form of appropriate service and/or monetary or material replacement.
   e. Discretionary Sanctions—Work assignments, service to the College, or other related discretionary assignments. Such assignments must have the prior approval of the Dean of Student Services.
   f. College Suspension—Separation of the student from the College for a definite period of time after which the student is eligible to return. Conditions for readmission may be specified.
   g. Expulsion—Permanent separation of the student from the College.
2. More than one of the sanctions listed above may be imposed for any single violation.

3. Other than College expulsion or suspension, disciplinary sanctions shall not be made part of the student's permanent academic record. Upon graduation, the student's confidential record may be expunged of disciplinary actions other than suspension or College expulsion, upon application to the Dean of Student Services. Cases other than suspension or expulsion shall be expunged from the student's confidential record two years after final disposition of the case.
4. The following sanctions may be imposed upon groups or organizations:
   a. Those sanctions listed in Sanctions, 1a–1g.
   b. Deactivation—Loss of all privileges, including College recognition for a specified period of time.
5. In each case in which the Student Disciplinary Standards Committee determines that a student has violated the Student Code, the sanction(s) shall be determined and imposed by the Committee. Following the hearing, the Committee chairperson shall within ten calendar days advise the accused in writing of the Committee's determination and of the sanctions(s) imposed, if any.

Appeal

1. The accused, having been found in violation of any portion of the Student Code, may appeal the decision/sanctions imposed by the Student Disciplinary Standards Committee.
2. The appeal must be submitted in writing to the Dean of Student Services within ten calendar days from the date that the accused is notified by the chairperson of the Student Disciplinary Standards Committee regarding the Committee decision or sanctions.
3. The Dean of Student Services shall review all pertinent data regarding the appeal and will render a written decision within ten calendar days. The Dean of Student Services' decision is final.

Violation of Law and College Discipline

1. If a student is charged only with an off-campus violation of federal, state, or local laws, but not with any other violation of this Code, disciplinary action may be taken and sanctions imposed for grave misconduct which demonstrates flagrant disregard for the College community. In such cases, no sanction may be imposed unless the student has been found guilty in a court of law or has declined to contest such charges, although not actually admitting guilt.
2. College disciplinary proceedings may be instituted against a student charged with violation of a law which is also a violation of this Student Code; for example, if both violations result from the same factual situation, without regard to the pendency of civil litigation in court or criminal arrest and prosecution. Proceedings under this Student Code may be carried out before, simultaneously with, or following civil or criminal proceedings off campus.
3. When a student is charged by federal, state or local authorities with a violation of law, the College will not request or agree to special consideration for that individual because of his or her status as a student. If the alleged offense is also the subject of a proceeding under the Student Code, however, the College may advise off-campus authorities of the existence of the Student Code and of how such matters will be handled internally within the College community. The College will cooperate fully with the law enforcement and other agencies in the enforcement of criminal law on campus and in the conditions imposed by criminal courts for the rehabilitation of student violators. Individual students and faculty members, acting in their personal capacities, remain free to interact with governmental representatives, as they deem appropriate.

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 Bradner Library.

Lost and Found
All found items should be turned over 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. There are also two lots, one south of the Applied Sciences Building and one east of the Liberal Arts Building, which are designated for general handicapped or faculty and staff use only. Any vehicle that is parked improperly will be ticketed.

The North 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.

Schoolcraft College

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 online courses, video courses, Open Entry/Open Exit courses, or hybrid courses. There are classes offered at convenient community locations or on weekends to accommodate student schedules.

Distance and Distributed Learning

Distance and distributed learning can be an effective solution for individuals who want to take college classes but, for various reasons, cannot get to a college campus. These classes expand learning opportunities while allowing students to balance educational demands with their work, travel or family. They allow study wherever and whenever a busy schedule permits.

Distance and distributed learning courses are a convenient way to take a college course toward the goal of earning a degree, gaining a skill required for a job, or expanding knowledge. Courses are offered through the Internet or by videotape. Students who are admitted to the College can register for distance and distributed learning courses, as they would for any credit course. They receive regular college credit for these classes. The keys to successful distance and distributed learning are motivation, discipline and effective time management. For more information, call 734-462-4532.

Online Courses

Schoolcraft College Online brings a variety of courses to students in various disciplines through the Internet. Online courses provide access to learning that would otherwise be inaccessible to many people. Online courses present a flexible learning opportunity that fits the schedule of busy people and complements their experience. The convenience and accessibility of online courses makes it easier than ever to learn while you earn and enhance your career prospects.

Students can earn an associate in arts or associate in general studies degree completely online. Online students should be self-motivated, 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. Some online classes require on-campus exams. Textbooks are required for each course.

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

- A PC with a minimum 128MB of RAM.
- A 56K or higher modem, DSL or cable modem.
- An Internet Service Provider and personal e-mail account.
- A CD-ROM or CD/DVD combo drive.
- Internet Explorer 5.0 or higher.
- Windows 98 or higher, and Microsoft Office 2000 or higher.
- Printer

  Macintosh equivalents include:
  - OS 9.1 or higher and Office 98 for Mac or higher.

Note: Some courses require specific software packages, i.e. Microsoft Office XP or supplemental materials. Please check the Schedule of Classes for more information at: www.schoolcraft.edu/dl/online/asp.

Video Courses

Video courses are carefully designed, complete academic courses delivered on videotapes. Video students study independently, visiting the campus for review sessions and examinations. Students view the tapes, read print materials and complete other assigned activities outside the classroom. The first class is a face-to-face orientation session to acquaint students with overall course requirements, dates of review sessions and tests, and other important information. Videotapes can be checked out at the Bradner Library.

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 several weeks, 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 may submit homework via e-mail, through Blackboard, 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 seventh week of the fall and winter semesters. Spring classes may be offered in either a seven- or twelve-week format. 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. For more information, call 734-462-4588, send an e-mail to oeoe@schoolcraft.edu, or go to the College Web site at www.schoolcraft.edu/oeoe.

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 appropriate instructional administrator 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.

Hybrid courses differ from Web-based courses because portions are classroom-based. On-campus meeting dates and times for hybrid courses are included in each semester's Schedule of Classes or found on the Web 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 with a minimum 128MB of RAM.

- A 56K or higher modem, DSL or cable modem.
- An Internet Service Provider and personal e-mail account.
- A CD-ROM or CD/DVD combo drive.
- Internet Explorer 5.0 or higher.
- Windows 98 or higher, and Microsoft Office 2000 or higher.
- Printer

  Macintosh equivalents would be:
  - OS 9.1 or higher and Office 98 for Mac or higher

For more information, call 734-462-4525, send an e-mail to hybrid@schoolcraft.edu or go to the College's Web site at www.schoolcraft.edu/hybrid.

Schoolcraft Scholars Honors Program

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 honor students: Humanities 190, a social values 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 honors faculty.

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 grade-point average or 12-hour college grade-point average of 3.5.

Business Development Center

VisTaTech Center Room 410
734-462-4438
www.schoolcraft.edu/bdc

The Business Development Center helps companies in southeastern Michigan in build sound strategies, develop and market successful products, find and keep new customers and incorporate new technologies. Its Procurement Technical Assistance Center has helped area companies win more than $1 billion in state and federal government contracts. Services include:

Contracted Training

The staff works with clients to develop training plans, provide instructors and facilitate training, either at the College or at the business location. Clients can choose to offer the instruction as full-credit classes or in shortened, non-credit modules. Instructors are highly qualified practitioners with industry experience and training expertise.

The Procurement Technical Assistance Center

The Schoolcraft PTAC helps businesses market their products and services to federal, state and local governments. The PTAC staff will help a company identify potential government markets, locate bidding opportunities, and help clients navigate through the government contracting process.

The Small Business and Technology Center

The SBTC provides counseling, training and research to start-ups, existing small businesses and innovative technology companies to foster their economic growth. The Center's training programs help clients write business plans, develop growth strategies and create marketing plans.

Continuing Education Services

Continuing Education Center
734-462-4448

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 can help you develop new interests and insights in a wide range of fascinating subjects. When you're looking for knowledge but not a degree, look to continuing education.

Your choices include programs that offer:

- Opportunities for career-minded individuals in business management and computers.
- Certification and licensure classes 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 that stimulate entrepreneurial leadership and local economic development.
- Personal development workshops, as well as courses and programs, which enhance the quality of life in the community.
- The Retired Senior Volunteer Program (RSVP) that gives senior adults an opportunity to work on campus with students and staff on a variety of projects.
- The Kids on Campus Program, serving nearly 2,000 children annually, that provides extensive enrichment programs and academically enhanced activities for children aged 5–15 years.
- Wellness and physical fitness programs 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, 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 on record.

VisTaTech Center

Schoolcraft College is an integral member of the community, serving more than 30,000 persons a year in credit courses, continuing and professional education and corporate training. The College took a giant step forward as a hub for community activity in 2003 when it opened the VisTaTech Center, a new campus landmark.

In addition to housing the instructional kitchens of Schoolcraft's acclaimed Culinary Arts Department and the Business Development Center, the VisTaTech Center provides an attractive, functional and technology-rich venue for corporate training, conferences and business meetings. There also is space for major presentations or

musical performances, as well as the student-operated American Harvest Restaurant which offers the public fine gourmet dining.

VisTaTech can accommodate groups ranging in size from one-on-one meetings to industry expositions. It is equipped to receive satellite teleconferences, features flexible furniture configurations and offers on-site catering services. For rental information, call 734-462-4610 or e-mail vistatech@schoolcraft.edu.

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 making arrangements to complete 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 applying 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 a counselor 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.

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 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, and 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. Grades may be accessed through clicking on Registration/Web Advisor on the Schoolcraft home page. 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 withdrawal 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 satisfy 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.

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 grade-point average

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.

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, confer with a counselor, 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 ten (10) 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. That decision* is final and concludes the appeal process.

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

Expedited Process

Occasionally a situation arises which requires more immediate action. Examples include deadlines such as graduation dates, external testing dates, and 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 hearing 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 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. That decision* is final and concludes the appeal process.

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

Graduation

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. 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.
- During their last semester, students must complete the Intent to Graduate form with the Counseling Center 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 and the 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 three types of certificates. Certificate programs are career- rather than transfer-oriented. See page 52 for more detailed information on the certificates listed below:

- Skills Certificates
- Pre-Associate Certificates
- Post-Associate Certificates

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.

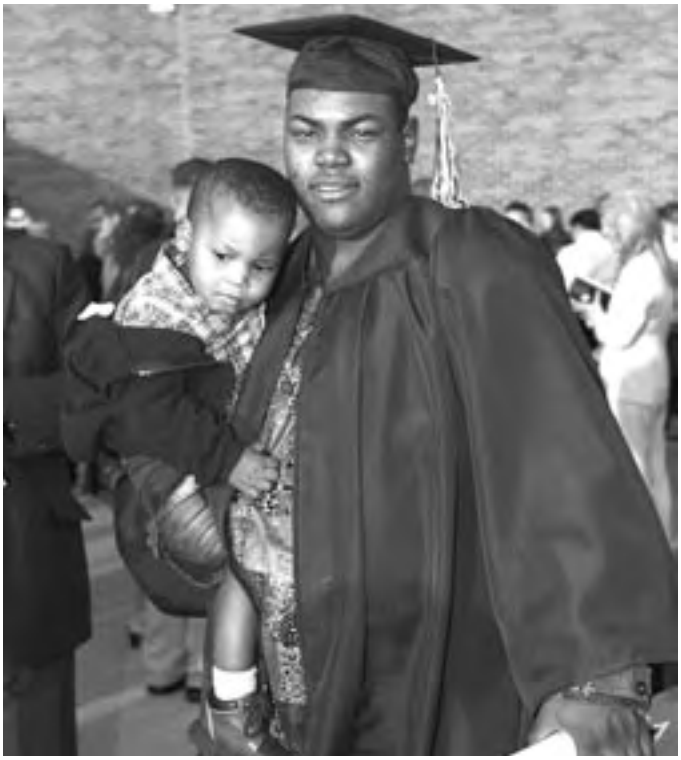
Any changes in these requirements must be approved in writing by the appropriate instructional administrator.

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.



Schoolcraft College

Academic Programs

Associate Degree Core Skills

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

The College requires students in all programs 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. Primary Core Skills courses in programs of study were selected to provide initial learning experiences for these skills. As students progress, secondary Core Skills courses provide additional opportunities to develop and demonstrate proficiency in them.

A random sampling of students' work will be reviewed annually 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 reasonably free from mechanical errors.
- The ability to understand, analyze and interpret what is read and heard.

Critical and Creative Thinking Skills

- The ability to 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

- The 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 Skill area to assist them in demonstrating competency in such areas. Core Skills courses are identified in the course syllabus.

NOTE: Some courses fulfill more than one Core Skills area.

Communication Skills

Communication Skills, Section 1

Writing—Select one combination of courses

English 100 & 106
Biomedical Engineering Technologist, Child Care-Development/Special Needs Paraprofessional/Family Support, Computer Aided Design, Computer Assisted Manufacturing, Computer Graphics-Animation/Digital Art/Interactive Media and Game Design/Motion Graphics/Publishing/Web Design, Culinary Arts, Electronic Technology, Manufacturing for Quality Production and Metallurgy and Materials Science majors.

English 100 & 116
Cosmetology Management, Criminal Justice/Criminal Justice with Academy, Emergency Medical Technology, Environmental Technology and Fire Technology/Fire Technology with Academy majors.

English 101 & 102
Business Information Technology,Child Care-Development/Special Needs Paraprofessional/Family Support, Computer Graphics-Animation/Digital Art/Interactive Media and Game Design/Motion Graphics/Publishing/Web Design, Computer Information Systems-Microcomputer Support Technician/Programming/Web Specialist, Criminal Justice/Criminal Justice with Academy, Environmental Technology, Health Information Technology, Marketing and Applied Management, Music-Recording Technology, Nursing-Registered and Theatre majors.

English 101 & 106
Accounting, Business Information Technology, Business-General, Child Care-Development/Special Needs Paraprofessional/Family Support, Marketing and Applied Management, Office Administration and Small Business Management majors only.

English 101 and English 107
Broadcast Communications majors.

Communication Skills, Section 2

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

Math—Select one course

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

Critical & Creative Thinking Skills, Section 2

Reasoning—Select one course

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

Critical & Creative Thinking Skills, Section 3

Computer and Information Technology—Select one course

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

Critical & Creative Thinking Skills, Section 4

Science—Select one course

Biology 101
Biology 104
Biology 105
Business 217
Business-General and Marketing Applied Management and Small Business Management majors only
Chemistry 100
Culinary Arts majors only
Chemistry 111
Computer Information Systems 250
Computer Information Systems majors only
Criminal Justice 201
Criminal Justice majors only
Criminal Justice 209
Criminal Justice majors only
Electronics 119
Electronics 127
Electronic Technology and Biomedical Engineering Technologist majors only
Emergency Medical Technology 108
Emergency Medical Technology and Fire Technology majors only
Fire 200
Geography 105
Geography 130
Geography 212
Geology 133
Metallurgy 102
Metallurgy 280
Physics 104
Physics 123
Physics 181

Interpersonal Skills

Interpersonal Skills, Section 1

The Individual—Select one course

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

Interpersonal Skills, Section 2

Arts and Humanities—Select one course

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

Interpersonal Skills, Section 3

Social Institutions—Select one course or any two of the listed history courses

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

Interpersonal Skills, Section 4

International Perspectives and Diversity—Select one course

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

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 another college or university, earn transfer credits toward a four-year degree, earn an associate degree in a career-related area, or earn 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 the Schoolcraft College Counseling Center staff.

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

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

Schoolcraft College Transfer Programs

Schoolcraft College offers many excellent transfer programs to students planning to complete freshman and sophomore courses and continue their education by transferring to a four-year college or university to earn a bachelor's degree. During the first two years at Schoolcraft College, transfer students complete courses in English, mathematics, science, social science and humanities, and courses related to their specific program of study. Students may apply transferable courses toward Associate in Arts, Associate in Science, Associate in Engineering or an Associate in General Studies degrees. A maximum of 60–62 credit hours usually transfer toward the bachelor's degree. However, some universities will accept additional courses depending on the school and the academic program. Schoolcraft College works closely with four-year institutions to provide current transfer information for a smooth transition from Schoolcraft College to a student's chosen four-year college or university. It is highly recommended that transfer students work with the Schoolcraft Counseling Center staff and the admissions advisor of the selected college or university.

Transfer Associate Degrees

Associate degree candidates must satisfy the specific degree requirements listed below, including completion of the Schoolcraft College Core Skills.

ASSOCIATE IN ARTS (AA)

The Associate in Arts degree is for students who plan to transfer to a four-year college or university. 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 or 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 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 or Humanities.
3. Sciences—20 credit hours (one course must be a laboratory course). Biology, Chemistry, Physical Geography, Geology, Mathematics or Physics.
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 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 college or university 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 or 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 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 requirements.

Program Substitution or Changes

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.

Transfer Terms to Understand

Transfer Guide—A document provided by the four-year university that lists the transferable courses applicable to specific academic programs. Transfer guides may be found in the Counseling Center or online via www.macrao.org.

Equivalency Guide—A comprehensive list of all Schoolcraft College courses that compare to the four-year institution's courses. This list indicates how, or if, the courses will be accepted upon transferring. Equivalent courses may or may not apply toward a specific major or program. Equivalency guides may be found in the Schoolcraft College Counseling Center or online via www.macrao.org. NOTE: Refer to Transfer guides for specific program requirements.

Liberal Arts—Indicates a well-rounded distribution of general education courses, often resulting in fulfilling the requirements for an Associate in Arts degree. These courses are typically transferable.

MACRAO Agreement—MACRAO is an agreement among participating colleges and universities which allows smooth transferability of courses. Completing English 101 and 102, 8 credit hours in each of the humanities, science and math, and social science areas fulfill the general education requirements at the transfer institution. Refer to specific colleges and universities for special conditions (called provisos) at www.macrao.org or with the Schoolcraft Counseling Center.

Transfer Associate Degrees—Associate degrees that are comprised of typically transferable courses including the Associate in Arts, Associate in Science, Associate in Engineering and Associate in General Studies. The Associate in Applied Science degree transfers ONLY by using special agreements which are called Articulation Agreements or by choosing a bachelor degree completion program. Please discuss your options with the Counseling Center.

Articulation Agreement—A special agreement between Schoolcraft College and a four-year institution that allows greater acceptance of transfer credits for courses that are not typically transferable, such as those found in the Associate in Applied Science degree. See pages 52 for a listing of associate of applied science programs.

Transfer Programs—A transfer program prepares students to transfer to a four-year college or university through the completion of an associate degree or the completion of selected coursework outlined on a transfer guide. Students may designate their transfer program.

Listed below are transfer programs offered at Schoolcraft College:

Transfer Programs

Business Related AA.00500
- Accounting
- Advertising
- Business Administration
- Communications
- 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
- Conservation
- Criminal Justice
- Economics
- English
- Foreign Language
- Geography
- Geology
- History
- Mathematics
- Music
- Philosophy
- Physics
- Political Science
- Psychology
- Public Administration
- Social Work
- Sociology
- Statistics
- Theatre

Transfer Agreements with Other Colleges and Universities

Schoolcraft has numerous agreements with other colleges and universities. Most of the agreements are in the form **of transfer guides**, **course equivalencies or formal articulation agreements.** By following the agreements, meeting with Schoolcraft College Counseling Center staff and the college and university representatives and completing the transfer program, students are able to make a seamless transition to those institutions.

Transfer agreements are available from the following colleges and universities:

Public
Central Michigan University
Eastern Michigan University
Ferris State University
Grand Valley State University
Lake Superior 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

Private
Cleary University
College for Creative Studies
Concordia University
Davenport University
Franklin University
Kettering University
Lawrence Technological University
Madonna University
Marygrove College
Northwood University
Rochester College
Siena Heights University
Spring Arbor University
University of Detroit Mercy
University of Phoenix
Walsh College

Transfer Program Options

Schoolcraft College students can select from two options when transferring:

1. Transfer before earning an associate degree.
   OR
2. Transfer after earning an associate degree.

A partial list of program options follows. ***See the Counseling Center staff for additional transfer program options.***

- Business Administration Transfer Program
- Pre-Education, Elementary Transfer Program
- Pre-Engineering Transfer Program
- Pre-Health Related Transfer Program
- Liberal Arts Transfer Program

BUSINESS ADMINISTRATION TRANSFER PROGRAM

Majors: Accounting, Computer Information Systems, Finance, Human Resource Management, International Business, Management, Marketing

Business Administration Transfer Programs provide the basic general education courses at the freshman and sophomore level for transfer to a specific institution. Schoolcraft students may receive an Associate in Arts degree or an Associate in Science degree by following the requirements specified by the institution and Schoolcraft College.

Students can contact the Schoolcraft College Counseling Center for requirements in business administration specific to each four-year college or university.

Associate Degree Requirements

Refer to specific university and Schoolcraft College Core Skills requirements.

English Composition and Computer Literacy Requirements

ENG 101	English Composition	3
ENG 102	English Composition	3
CIS 115	Introduction to Computer Based Systems	3
or		
CIS 120	Software Applications for the Microcomputer	3

Humanities *Minimum 8 credits*

Select from two disciplines or more.

COMA 103	Fundamentals of Speech	3
or		
*FR, SPAN, GER 101/102	Elementary	8
Additional Humanities Requirement		3–6

*Refer to transfer guides for specific institution requirements.

*Math and Science/Lab *Minimum 8 credits*

Select from two disciplines or more.

MATH 122	Elementary Statistics	4
and/or		
MATH 135	Finite Mathematics	4
or		
MATH 145	Calculus for Business and Social Science	4
or		
MATH 150	Calculus with Analytic Geometry	5
Additional Lab Science Requirement		4

Refer to transfer guides for specific institution requirements.

*Associate of Science degree requires 20 credits of math and science.

Social Science *Minimum 8 credits*

Select from two disciplines or more.

Social Science requirements		8

Refer to transfer guides for specific institution requirements.

Pre-Business Program Requirements

ACCT 201/202	Principles of Accounting	8
ECON 201/202	Principles of Economics (macro and micro)	8

Suggested Electives *Minimum of 10 credits*

BUS 201	Business Statistics	3
BUS 207	Business Law	3
BUS 217	Business Management	3
BUS 226	Principles of Marketing	3

Refer to transfer guides for specific institution requirements.

PROGRAM TOTAL 60–63 CREDITS

Notes:

PRE-EDUCATION, ELEMENTARY TRANSFER PROGRAM

Pre-Education, Elementary Transfer Programs provide the basic general education courses at the freshman and sophomore level for transfer to a specific institution to qualify for teacher certification. Schoolcraft students may receive an Associate in Arts degree or an Associate in Science degree by following the requirements specified by the institution and Schoolcraft College.

Students can contact the Schoolcraft College Counseling Center for requirements in Pre-Education, Elementary specific to each four-year college or university.

Associate Degree Requirements

Refer to specific university and Schoolcraft College Core Skills requirements.

English Composition and Computer Literacy Requirements

ENG 101	English Composition	3
ENG 102	English Composition	3
CIS 115	Introduction to Computer Based Systems	3
or		
CIS 120	Software Applications for the Microcomputer	3

Refer to transfer guides for specific institution requirements.

Humanities *Minimum 8 credits*

Select from two disciplines or more

ART 113	Art Education	3
ENG 203	Children's Literature	3
MUSIC 107	Music for Elementary Teachers	4
COMA 103	Fundamentals of Speech	3
or		
*FR, SPAN, GER 101/102	Elementary	8

*Refer to transfer guides for specific institution requirements.

***Math and Science/Lab** *Minimum 8 credits*

Select from two disciplines or more.

GEOG 105	Earth Science for Elementary Teachers	4
or		
BIOL 101	General Biology	4
or		
PHYS 104	Introduction to Astronomy	4
MATH 105	Mathematics for Elementary Teachers 1	4
MATH 106	Mathematics for Elementary Teachers 2	4
or		
Higher level MATH		

Refer to transfer guides for specific institution requirements.

*Associate of Science degree requires 20 credits of math and science.

Social Science *Minimum 8 credits*

Select from two disciplines or more.

POLS 105	Political Science	3
PSYCH 201	General Psychology	4
SOC 201	Introduction to Sociology	3

Refer to transfer guides for specific institution requirements.

Pre-Elementary Electives *Minimum 16 credits*

Select courses to be used for your teaching major and minor as specified by the institution.

PE 240	Physical Education for Elementary Teachers	3

Early Childhood Majors Only

CCD 115	School Age Child	3
CCD 116	Child Development	3
CCD 170	Behavior Management	3
CCD 200	Child Care Practicum 2	3
CCD 216	The Child with Special Needs	3

PROGRAM TOTAL 60–65 CREDITS

Notes:

PRE-ENGINEERING TRANSFER PROGRAM

Pre-Engineering Transfer Programs provide the basic general education courses at the freshman and sophomore level for transfer to a specific institution in the College of Engineering. Schoolcraft students may receive an Associate of Science degree or an Associate in Engineering degree by following the requirements specified by the institution and Schoolcraft College.

Students need to contact the Schoolcraft College Counseling Center for requirements in Pre-Engineering specific to each four-year college or university.

Associate Degree Requirements

Refer to specific university and Schoolcraft College Core Skills requirements.

English Composition

ENG 101	English Composition	3
*ENG 102	English Composition	3

Refer to transfer guides for specific institution requirements.

*Some institutions require ENG 116.

Humanities *Minimum 6 credits*

*COMA 103	Fundamentals of Speech	3
or		
Foreign Language		4
Additional Humanities requirements		2–3

Refer to transfer guides for specific institution requirements.

*ENGR 100, Introduction to Engineering and Technology, may be used in place of COMA 103 to meet a Core Skills requirement.

Math and Science/Lab *Select 34 credits**

MATH 150	Calculus with Analytic Geometry 1	5
MATH 151	Calculus with Analytic Geometry 2	5
MATH 240	Calculus with Analytic Geometry 3	5
MATH 252	Differential Equations (*not required for Manufacturing)	5
PHYS 211	General Physics	5
PHYS 212	General Physics	5
CHEM 111	General Chemistry (*not required for Manufacturing)	4

Refer to transfer guides for specific institution requirements.
*Courses not required for the manufacturing option (25 credits).

Social Science *Minimum 7 credits*

ECON 201	Principles of Economics (Macro)	4
Additional Social Science requirement		3

Refer to transfer guides for specific institution requirements.

Additional Courses *To be used as electives or required courses*

ECON 202	Principles of Economics (Micro)	4
ENGR 100	Introduction to Engineering and Technology	3
ENGR 201	Statics	3
ENGR 202	Mechanics of Materials	3
ENGR 203	Dynamics	4
CAD 103	Engineering Graphics	3
CAD 201	I-DEAS Level 1	4
CIS 211	Introduction to C++	2
CIS 221	Advanced C++	2
MATH 230	Linear Algebra	4

Refer to transfer guides for specific institution requirements.

Manufacturing Option: University of Detroit Mercy

ENGR 100	Introduction to Engineering and Technology	3
MET 114	Engineering Materials	3
QM 108	Quality Statistical Methods	3
CAD 103	Engineering Graphics	3
ENGR 201	Statics	3
ENGR 202	Mechanics of Materials	3
MFG 102	Manufacturing Processes	3
MFG 241	Quantitative Metrology	3

PROGRAM TOTAL 60 CREDITS

Notes:

PRE-HEALTH RELATED TRANSFER PROGRAM

Majors: Biology, Dental Hygiene, Nursing, Occupational Therapy, Pre-Dental, Pre-Med, Pre-Pharmacy, Pre-Physical Therapy, Pre-Physician Assistant

Pre-Health Related Transfer Programs provide the basic general education courses at the freshman and sophomore level for transfer to a specific institution. Schoolcraft students may receive an Associate in Arts degree or an Associate in Science degree by following the requirements specified by the institution and Schoolcraft College.

Students need to contact the Schoolcraft College Counseling Center for requirements in Pre-Health Related Transfer Programs specific to each four-year college or university.

Associate Degree Requirements

Refer to specific university and Schoolcraft College Core Skills requirements.

English Composition and Computer Literacy Requirements

ENG 101	English Composition	3
ENG 102	English Composition	3
CIS 115	Introduction to Computer Based Systems	3
or		
CIS 120	Software Applications for the Microcomputer	3

Humanities *Minimum 8 credits*

Select from two disciplines or more.

COMA 103	Fundamentals of Speech	3
or		
*FR, SPAN,		
GER 101/102	Elementary	8
Additional Humanities requirements		3–6

*Refer to transfer guides for specific institution requirements.

Notes:

Math and Science/Lab *Minimum 20 credits*

Select from two disciplines or more.

Select courses and/or combination of courses depending upon transfer program.

BIOL 101	General Biology	4
BIOL 120	Principles of Biology 1	5
BIOL 130	Principles of Biology 2	5
BIOL 237	Principles of Human Anatomy and Physiology 1	4
BIOL 238	Principles of Human Anatomy and Physiology 2	4
BIOL 243	Microbiology	4

Select courses and/or combination of courses depending upon transfer program.

CHEM 111	General Chemistry	4
CHEM 117	General Chemistry and Qualitative Analysis	5
CHEM 120	Organic and Biochemistry	4
CHEM 213	Organic Chemistry	5
CHEM 214	Organic Chemistry	5
PHYS 181	General Physics	4
PHYS 182	General Physics	4

Select courses and/or combination of courses depending upon transfer program.

MATH 111	Applications: Utility of Math	4
MATH 113	Intermediate Algebra for College Students	4
MATH 119	Trigonometry	3
MATH 122	Elementary Statistics	4
MATH 119/128	Trigonometry/Precalculus-Without Trigonometry	7
MATH 119/129	Trigonometry/Precalculus With Trigonometry	8
MATH 150	Calculus with Analytic Geometry	5

Social Science *Minimum 8 credits*

Select from two disciplines or more.

Social Science requirements		8

Refer to transfer guides for specific institution requirements.

Electives:

Refer to transfer guides for specific institution requirements.

MINIMUM PROGRAM TOTAL 60 CREDITS

LIBERAL ARTS TRANSFER PROGRAM

Liberal Arts Transfer Programs provide the basic general education courses at the freshman and sophomore level for transfer to a specific institution. Schoolcraft students may receive an Associate in Arts degree by following the requirements specified by the institution and Schoolcraft College.

Students can contact the Schoolcraft College Counseling Center for requirements in Liberal Arts specific to each four-year college and university.

Associate Degree Requirements

Refer to specific university and Schoolcraft College Core Skills requirements.

English Composition Requirements

ENG 101 English Composition 3
ENG 102 English Composition 3

Humanities *Minimum 8 credits*

Select from two disciplines or more.

Humanities requirements 8

Choose from:

Art	Music Literature or Music Theory
Foreign Language	Philosophy
History	Communication Arts
Literature	Theatre
Music Appreciation	Humanities

Refer to transfer guides for specific institution requirements.

Math and Science/Lab *Minimum 8 credits*

Select from two disciplines or more. One lab science course is required.

Math and Science requirements 8

Choose from:

Biology	Geology	Chemistry
Mathematics	Physical Geography	Physics

Refer to transfer guides for specific institution requirements.

Social Science *Minimum 8 credits*

Select from two disciplines or more.

Social Science requirements 8

Choose from:

Anthropology	Political Science	Economics
Psychology	Sociology	History
World Regional Geography		

Refer to transfer guides for specific institution requirements.

General Electives *Minimum of 30 credits*

General Electives 30

Refer to transfer guides for specific institution requirements.

PROGRAM TOTAL 60 CREDITS

Featured Articulations and Special Agreements

Schoolcraft College has developed partnerships and articulated agreements with many four-year colleges and universities. Listed below are Schoolcraft College's featured articulations and special agreements, which include the Associate in Arts, Associate in Science, Associate in Engineering, Associate in General Studies and Associate in Applied Science degrees.

Central Michigan University

- Bachelor of Science degree in Vehicle Design
  - Associate in Applied Science degree
    - Computer Aided Design—Mechanical Design Option

Davenport University

- Bachelor of Business Administration degree
  - Associate in Arts Degree, Associate in Science degree, Associate in General Studies degree, Associate in Engineering degree, Associate in Applied Science degree

Eastern Michigan University

- Bachelor of Science degree in Applied Technology
  - Associate in Applied Science degree
    - Biomedical Engineering Technology
    - Computer Aided Design
    - Computer Assisted Manufacturing
    - Computer Graphics Technology
    - Computer Information Systems
    - Electronic Technology, Environmental Technology
    - Manufacturing for Quality Production
    - Metallurgy and Materials Science
- Bachelor of Science degree in Communication Technology
  - Associate in Applied Science degree
    - Computer Graphics Technology
- Bachelor of Science degree in Hotel/Restaurant Management
  - Associate in Applied Science degree
    - Culinary Arts
- Bachelor of Science degree in Health Administration
  - Associate in Applied Science degree
    - Health Information Technology
- Bachelor of Science degree in Nursing (BSN)
  - Associate in Applied Science degree
    - Nursing
- Bachelor of Science degree in Technology Management
  - Associate in Applied Science degree, Associate in General Studies degree
- Bachelor of Science degree in Social Work
  - Associate in Arts degree

Franklin University Alliance

- Bachelor of Science degrees in Accounting, Applied Management, Business Administration, Computer Science, Digital Communication, Health Care Management, Information Technology, Management Information Sciences, Public Safety Management
  - Associate in Arts degree, Associate in Science degree, Associate in Engineering degree, Associate in General Studies degree, Associate in Applied Science degree

Madonna University
- Bachelor of Science degree in Business Administration
  - Associate in Applied Science degree
    - Business-General
    - Marketing and Applied Management
    - Small Business Management
- Bachelor of Science degree in Criminal Justice
  - Associate in Applied Science degree
    - Criminal Justice
    - Criminal Justice with Academy
- Bachelor of Science degree in Fire Technology
  - Associate in Applied Science degree
    - Fire Technology
    - Fire Technology with Academy
- Bachelor of Science degree in Hospitality Management
  - Associate in Applied Science degree
    - Culinary Arts
- Bachelor of Science degree in Nursing (BSN)
  - Associate in Applied Science degree
    - Nursing

University of Detroit Mercy
- Bachelor of Science degree in Nursing (BSN)
  - Associate in Science degree
    - Nursing
- Bachelor of Engineering degree
  - Associate in Engineering degree

The University of Michigan-Dearborn
- Bachelor of General Studies degree
  - Associate in Arts degree, Associate in Science degree, Associate in Engineering degree, Associate in General Studies degree, Associate in Applied Science degree
- Bachelor of General Studies degree in Children and Families
    - Associate in Applied Science degree
    - Child Care Development
    - Child Care—Family Support

Walsh College
- Bachelor of Accountancy and Bachelor of Business Administration degrees in Management, General Business, Marketing, Finance, Computer Information Systems
  - Associate in Arts degree

Notes:

MACRAO Transfer Articulation Agreement

The Michigan Association of Collegiate Registrars and Admissions Officers Articulation Agreement was established to improve the process of transferring coursework between two-year and four-year colleges and universities in Michigan. The agreement provides for transferability of 30 semester credits to fulfill the general education requirements at participating institutions. Students may complete the MACRAO Transfer Agreement as part of an associate degree or as a stand-alone option.

Schoolcraft College participates in the MACRAO Transfer Agreement with the following Michigan colleges and universities.

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

**Provisions, Limitations and Exceptions*

NOTE: Institutions marked with * have limitations, exceptions or provisos to the MACRAO Transfer Agreement. Check with Schoolcraft Counseling Center staff and admissions representatives from the four-year college or university to learn about exceptions before you transfer. Additional information can be found at www.MACRAO.org.

Required MACRAO Coursework

Thirty semester credit hours of coursework are needed to meet the MACRAO Transfer Agreement.

Students must complete the distribution of coursework listed below:
- English Composition (ENG 101 and 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 Transfer Agreement.
- Transcripts of Associate in Arts or Associate in Science degrees, for graduates who qualify, will be stamped "MACRAO Agreement Satisfied."
- Students meeting the MACRAO Transfer Agreement, but not receiving an Associate in Arts degree or Associate in Science degree, must request that transcripts be stamped, "MACRAO Agreement Satisfied," by contacting the Registrar's Office.

Transfer Check List

- ☑ Identify the four-year university of your choice as early as possible.
- ☑ Meet with Schoolcraft College Counseling Center staff to keep current with transfer issues, to satisfy your associate degree requirements, and to ensure transferability of courses.
- ☑ Attend transfer events. Meet with representatives from Michigan's four-year universities. Visitation dates and scholarship information are listed on the College cable television network, posted in the Counseling Center and posted on the transfer bulletin boards throughout campus.
- ☑ Follow the transfer guide, prepared by the four-year university, which lists course requirements for your specific transfer program. Inquire about the MACRAO Agreement. See MACRAO Articulation Agreement.
- ☑ Apply to the four-year university of your choice in a timely manner. Transfer applications are available in the Counseling Center.

Schoolcraft College Career Programs

Schoolcraft College offers many excellent career programs for students seeking an education and skills to enter the job market or to advance their current careers. Students selecting career programs can earn a certificate or an Applied Science degree. Schoolcraft College's career programs are based on both the 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- and part-time.

The career programs presented in this section are designed primarily to prepare students for the workplace rather than to transfer to an institution. However, many career courses and programs will transfer to other colleges and universities through articulations and special agreements. To explore transferability options, see the Schoolcraft College Counseling Center and refer to pages 50–51 to see a list of Featured Articulations and Special Agreements.

Requirements for a Career Program Degree

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. Refer to page 53.
3. All courses that apply to this degree must be at the 100- or 200-level.
4. Complete all Schoolcraft College Core Skills requirements.

Certificates of Program Completion

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

Skills Certificates

A skills certificate of approximately 16–20 credit hours is awarded upon satisfactory completion of a program of study with a minimum 2.0 grade-point average. Skills certificates do not require completing Core Skills courses. The courses for many skills certificates are in the companion pre-associate certificate.

Pre-Associate Certificates

A pre-associate certificate of approximately 30 credit hours 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 courses. 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.

List of Career Programs

Business Certificate
- Accounting
- Business—Basic
- Business Information Technology
- Computer Information Systems—
  - Introductory
  - Networking Technology Integration
  - Web Specialist
- Office Information Systems—
  - Office Specialist

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

Communication Arts Associate Degree
- Broadcast Communications

Health Skills Certificates
- Medical Assisting—
  - Medical Biller/Receptionist
  - Phlebotomy
  - Physician Office Medical Transcription

Health Certificate
- Health Information Technology—
  - Coding Specialist [1]
- Massage Therapy [1]
- Medical Assisting [1]
- Medical Transcription [1]
- Nursing—Licensed Practical [1]

Health Associate Degree
- Health Information Technology [1]
- Nursing—Registered [1]

Public Service Certificate
- Child Care and Family Services—
  - Child Care and Development
  - Child Development Associate
  - Family Support
  - Special Needs Paraprofessional
- Emergency Medical Technology
- Firefighter Technology [1]

Public Service Associate Degree
- Child Care and Family Services—
  - Child Care and Development
  - Family Support
  - Special Needs Paraprofessional
- Criminal Justice
- Criminal Justice with Academy [1]
- Emergency Medical Technology
- Fire Technology [1]
- Fire Technology with Academy [1]

Technology Certificate
- Computer Aided Drafting—
  - Electromechanical
  - Technical
- Computer Graphics Technology—
  - Foundation
  - 3D Animation
  - Digital Art
  - Interactive Media and Game Design
  - Motion Graphics and Video
  - Publishing
  - Web Design
- Computer Service Technician
- Culinary Arts [1]
- Culinary Baking and Pastry Arts [1]
- Electronics Service
- Laser Technology
- Metallurgy—Applied Physical
- Music—
  - Foundations
  - Intermediate
  - Piano Teacher
  - Recording Technology
- Welding—Fabrication

Technology Associate Degree
- Biomedical Engineering Technologist
- Computer Assisted Manufacturing
- Computer Aided Design—Mechanical
- Computer Graphics Technology—
  - 3D Animation
  - Digital Art
  - Interactive Media and Game Design
  - Motion Graphics and Video
  - Publishing
  - Web Design
- Culinary Arts [1]
- Electronics Technology
- Environmental Technology
- Manufacturing for Quality Production
- Metallurgy and Materials Science
- Music—Recording Technology

Post-Associate Certificate
- Biomedical Applications [2]
- Computer Graphics Technology—
  - 3D Animation [2]
  - Digital Art [2]
  - Interactive Media and Game Design [2]
  - Motion Graphics and Video [2]
  - Publishing [2]
  - Web Design [2]
- Computer Information Systems [2]
- Culinary Arts—Brigade Advanced Skills [2]
- Culinary Management [2]
- Metallurgy—Materials Science [2]

[1] Students must be officially admitted to these programs before selecting any 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.

Notes:

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 training for those planning to seek a career in accounting.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses, Electives and all College Requirements qualify for the Associate in Applied Science Degree.

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

ACCT 201	Principles of Accounting	4
ENG 101	English Composition	3
ENG 106	Business English	3
COMA 103	Fundamentals of Speech	3
CIS 120	Software Applications	3
ECON 201	Principles of Economics	4
POLS 105	Survey of American Government	3
PSYCH 153	Human Relations	3
or		
PSYCH 201	General Psychology	4
HUM 106*	Introduction to Art and Music	1
GEOL 133*	Physical Geology	4
		31–32

* Other courses meeting the Core Skills may be substituted.

Program Courses

ACCT 202	Principles of Accounting	4
ACCT 260	Computer Based Accounting	3
or		
ACCT 261	Computerized Accounting	3
or		
ACCT 263	Computerized Accounting for Small Business	3
ACCT 221	Intermediate Accounting	4
CIS 180	Spreadsheet Applications—Current Software	3
ACCT 222	Intermediate Accounting	4
ACCT 226	Cost Accounting	4
ACCT 238	Federal Tax Accounting	4
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
		32–33

PROGRAM TOTAL 63–65 CREDITS

The above program meets all Core Skills requirements.

Accounting One-Year Certificate

Schoolcraft program code # 1YC.00001

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

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses qualify for a Certificate of Program completion.

Program Courses

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

PROGRAM TOTAL 33 CREDITS

Notes:

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.

As part of the BMET program, students will be required to complete 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 internship, students will return to campus to continue studies. After completing an additional semester, students may take the second internship course, BMET 255. Students must meet with the BMET Internship Coordinator before enrolling in BMET 254 and BMET 255 to be eligible to fulfill program requirements. Students must complete internships to remain enrolled in the program.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses and all College Requirements qualify for an Associate in Applied Science Degree.

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

BIOL 105	Elementary Human Anatomy and Physiology 1	4
ENG 100	Communication Skills	3
ENG 106	Business English	3
COMPS 126	Technical Programming	3
ELECT 127	DC Circuits and Mathematical Modeling	5
ELECT 128	AC Circuits and Mathematical Modeling	5
HUM 106	Introduction to Art and Music	1
POLS 105	Survey of American Government	3
PSYCH 153	Human Relations	3
		30

Program Courses

MET 102	Introduction to Materials Science	3
BMET 116	Biomedical Instrumentation Terminology and Safety 1	3
ELECT 129	Diodes and Transistors	3
BMET 204	Biomedical Instrumentation Terminology and Safety 2	4
BMET 254	Biomedical Equipment Internship 1	3
BMET 255	Biomedical Equipment Internship 2	3
CIS 171	Introduction to Networking	3
CIS 235	Managing and Troubleshooting PCs	3
ELECT 134	Introduction to Microcontrollers	3
ELECT 206	Operational Amplifiers and Linear Integrated Circuits	4
ELECT 226	Digital Logic Circuits	4
		36

PROGRAM TOTAL 66 CREDITS

The above program meets all Core Skills requirements.

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 Biomedical Engineering opportunities to study new technologies and innovations.

Completion of this program will enhance a professional's ability to meet the demands of rapidly changing technologies in 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 completed a minimum of an accredited Associate Degree in Applied Science. All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. 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).

Program Courses

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

BIOL 240	Anatomy and Physiology Review	2
CIS 120	Software Applications	3
CIS 171	Introduction to Networking	3
CIS 178	Technical Microsoft Windows	3
CIS 235	Managing and Troubleshooting PCs	3
CIS 271	Local Area Networks	3
CIS 273	TCP/IP and Network Architectures	3
ELECT 134	Introduction to Microcontrollers	3
LASR 103	Laser Concepts	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.

Notes:

BROADCAST COMMUNICATIONS

Broadcast Communications Associate Degree

Schoolcraft program code # AAS.00041

Students will develop 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 credit hours are awarded for completion of the SHS Certificate Program and the remaining credit hours are taken at Schoolcraft.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. The program can begin at either school. Students who satisfactorily complete the Program courses, Electives and all College Requirements qualify for the Associate in Applied Science Degree.

TYPICAL PROGRAM SCHEDULE

Program Courses (Offered at Specs Howard School)

Vocal Technique	1.5
Broadcast Concept	1.5
Broadcast Writing	1.5
Interpersonal Communication Development	0.5
Workshop	1.5
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
	15

SCHOOLCRAFT COLLEGE

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

ENG 101	English Composition	3
COMA 103	Fundamentals of Speech	3
POLS 105	Survey of American Government	3
ENG 107	Introduction to Journalism	3
ACCT 201 or	Principles of Accounting	4
BUS 105 or	Business Mathematics	3
MATH 113	Intermediate Algebra for College Students	4
PSYCH 201	General Psychology	4
GEOG 130	Physical Geography	4
CIS 105	Computer Orientation	1
THEA 208	Acting 1	3
		27–28

Program Courses

BUS 101	Introduction to Business	3
COMA 201	Discussion	3
SOC 201	Principles of Sociology	3
GEOL 133	Physical Geology	4
THEA 241	Oral Interpretation of Literature	3
		16

Electives

Elective*	2–3

PROGRAM TOTAL 60–62 CREDITS

* Any 100 or 200 level course not previously taken.

The above program meets all Core Skills requirements.

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 to develop 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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses, Electives and all College Requirements qualify for an Associate in Applied Science Degree.

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

ENG 101*	English Composition	3
ENG 106	Business English	3
COMA 103	Fundamentals of Speech	3
BUS 105	Business Mathematics	3
POLS 105	Survey of American Government	3
BUS 122	Advertising	3
CIS 120	Software Applications	3
BUS 217	Business Management	3
PSYCH 153 or	Human Relations	3
PSYCH 201	General Psychology	4
ECON 201	Principles of Economics	4
HIST 230	U.S. Business History	3
		34–35

Program Courses

BUS 101	Introduction to Business	3
BUS 120	Principles of Salesmanship	3
ACCT 103 or	Introduction to Accounting	4
ACCT 201	Principles of Accounting	4
ENG 116	Technical Writing	3
BUS 220	Supervision	3
BUS 207	Business Law	3
BUS 226	Principles of Marketing	3
		22

Electives

Select 6 credit hours from the classes listed below to fulfill the elective requirement:

BUS 161	Retail Principles and Practices	3
BUS 162	Retailing Merchandising	3
BUS 204	Personal Finance	3
BUS 205	Personal Investing	3
BUS 208	Business Law	3
BUS 230	Human Resource Management	3
CIS 215	Advanced Software Applications	3

PROGRAM TOTAL 62–63 CREDITS

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

The above program meets all Core Skills requirements.

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 who seek employment opportunities as managers in small business.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses, Electives, and all College Requirements qualify for an Associate in Applied Science Degree.

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

ENG 101	English Composition	3
ENG 106	Business English	3
BUS 105	Business Mathematics	3
CIS 120	Software Applications	3
COMA 103	Fundamentals of Speech	3
BUS 217	Business Management	3
HUM 106	Introduction to Art and Music	1
POLS 105	Survey of American Government	3
PSYCH 153 or	Human Relations	3
PSYCH 201	General Psychology	4
		25–26

Program Courses

ACCT 103 or	Introduction to Accounting	4
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 120	Principles of Salesmanship	3
BUS 204	Personal Finance	3
BUS 207	Business Law	3
BUS 220	Supervision	3
BUS 226	Principles of Marketing	3
BUS 230	Human Resource Management	3
		31

Electives

Select 8–9 credit hours from the classes listed below to fulfill the elective requirement:

ACCT 263	Computerized Accounting for Small Business	3
BUS 122	Advertising	3
BUS 161	Retail Principles and Practices	3
BUS 162	Retailing Merchandising	3
BUS 205	Personal Investing	3
BUS 208	Business Law	3
CIS 215	Advanced Software Applications	3
ENG 116	Technical Writing	3
		PROGRAM TOTAL 62–63 CREDITS

The above program meets all Core Skills requirements.

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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses, Electives and all College Requirements qualify for an Associate in Applied Science Degree.

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

ENG 101	English Composition	3
ENG 102 or	English Composition	3
ENG 106	Business English	3
BUS 105	Business Mathematics	3
BUS 122	Advertising	3
BUS 217	Business Management	3
CIS 120	Software Applications	3
COMA 103	Fundamentals of Speech	3
ECON 201	Principles of Economics	4
POLS 105	Survey of American Government	3
PSYCH 153 or	Human Relations	3
PSYCH 201	General Psychology	4
		31–32

Program Courses

BUS 101	Introduction to Business	3
BUS 161	Retail Principles and Practices	3
ACCT 103 or	Introduction to Accounting	4
ACCT 201	Principles of Accounting	4
BUS 120	Principles of Salesmanship	3
BUS 162	Retail Merchandising	3
BUS 220	Supervision	3
BUS 226	Principles of Marketing	3
BUS 230	Human Resource Management	3
		25

Electives

Select 5-6 credit hours from the classes listed below to fulfill the elective requirement:

BUS 204	Personal Finance	3
BUS 205	Personal Investing	3
BUS 208	Business Law	3
CIS 180	Spreadsheet Applications—Current Software	3
CIS 215	Advanced Software Applications	3
ENG 116	Technical Writing	3
OIS 100	Keyboarding	2
		PROGRAM TOTAL 61–63 CREDITS

The above program meets all Core Skills requirements.

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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses qualify for a Certificate of Program completion.

Program Courses

BUS 101	Introduction to Business	3
ACCT 103	Introduction to Accounting	4
or		
ACCT 201	Principles of Accounting	4
OIS 100	Keyboarding 1	2
ENG 100	Communication Skills	3
or		
ENG 101	English Composition	3
PSYCH 153	Human Relations	3
BUS 217	Business Management	3
ECON 103	Introductory Economics	3
or		
ECON 201	Principles of Economics	4
ENG 106	Business English	3
COMA 103	Fundamentals of Speech	3
CIS 120	Software Applications	3
BUS 105	Business Mathematics	3

PROGRAM TOTAL 33–34 CREDITS

BUSINESS INFORMATION TECHNOLOGY

Business Information Technology Associate Degree

Schoolcraft program code # AAS.00277

The BIT program is designed to meet the growing needs of industry for a new category of Information Technology professional. Today's employers increasingly request graduates who have of a sound business background combined with the ability to develop or manage business computer systems.

This is a fast growing field with continual changes in hardware, software and procedures. The widespread use of computers in all areas of businesses has generated new positions and expanded opportunities in Information Technology. Effective use of technology enables businesses to serve customers better, access more information, be more flexible in responding to business changes and increase employee productivity.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses, Electives and all College Requirements qualify for the Associate in Applied Science Degree.

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

ECON 201	Principles of Economics	4
ENG 101	English Composition	3
and		
ENG 102	English Composition	3
OR		
ENG 101	English Composition	3
and		
ENG 106	Business English	3
COMA 103	Fundamentals of Speech	3
MATH 113	Intermediate Algebra for College Students	4
HUM 106	Introduction to Art and Music	1
POLS 105	Survey of American Government	3
PSYCH 153	Human Relations	3
or		
PYSCH 201	General Psychology	4
		24–25

Program Courses

BUS 101	Introduction to Business	3
ACCT 201	Principles of Accounting	4
CIS 120	Software Applications	3
CIS 129	Introduction to Programming Logic	3
BUS 217	Business Management	3
CIS 125	Principles of Information Security	3
CIS 251	IT Project Management	3
BUS 220	Supervision	3
CIS 250	Systems Development and Design	4
CIS ELECTIVE	(select from CIS courses below)	6–7
ELECTIVE	(select any of the courses below)	6
		41–42

Electives

BUS 201	Business Statistics	3
BUS 207	Business Law	3
BUS 208	Business Law	3
BUS 226	Principles of Marketing	3
CIS 123	Introduction to E-Commerce	3
CIS 170	Microsoft Windows	3
CIS 171	Introduction to Networking	3
CIS 175	Visual Basic	3
CIS 176	Visual Basic.NET	3
CIS 185	Introduction to HTML	3
CIS 211	Introduction to C++	2
CIS 221	Advanced C++	2
CIS 225	Database Management	3
CIS 235	Managing and Troubleshooting PCs	3
CIS 256	Introduction to XML	3
CIS 265	Networking 1	3
CIS 276	Networking 2	3
CIS 290	Object—Oriented Programming with Java	3

PROGRAM TOTAL 65–67 CREDITS

The above program meets all Core Skills requirements.

Business Information Technology One-Year Certificate

Schoolcraft program code # 1YC.00242

The BIT program is designed to meet the growing needs of industry for a new category of Information Technology professional. Today's employers increasingly requests graduates who have of a sound business background combined with the ability to develop or manage business computer systems.

This is a fast growing field with continual changes in hardware, software and procedures. The widespread use of computers in all areas of business has generated new positions and expanded opportunities Information Technology. Effective use of technology enables businesses to serve customers better, access more information, be more flexible in responding to business changes and increase employee productivity.

This certificate is designed to provide students with an overview of business and computer systems. All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses and Electives qualify for a Certificate of Program Completion.

Program Courses

BUS 101	Introduction to Business	3
ACCT 201	Principles of Accounting	4
CIS 120	Software Applications	3
CIS 129	Introduction to Programming Logic	3
BUS 217	Business Management	3
CIS 125	Principles of Information Security	3
CIS 251	IT Project Management	3
BUS 220	Supervision	3
CIS 250	Systems Development and Design	4
		29

Electives

Select 6–7 credit hours from the electives listed below:

BUS 201	Business Statistics	3
BUS 207	Business Law	3
BUS 208	Business Law	3
BUS 226	Principles of Marketing	3
CIS 123	Introduction to E-Commerce	3
CIS 170	Microsoft Windows	3
CIS 171	NetPrep Introduction to Networking	3
CIS 175	Visual Basic	3
CIS 176	Visual Basic.NET	3
CIS 185	Introduction to HTML	3
CIS 211	Introduction to C++	2
CIS 221	Advanced C++	2
CIS 225	Database Management	3
CIS 235	Managing and Troubleshooting PCs	3
CIS 256	Introduction to XML	3
CIS 265	Networking 1	3
CIS 276	Networking 2	3
CIS 290	Object—Oriented Programming with Java	3

PROGRAM TOTAL 35–36 CREDITS

Notes:

CHILD CARE AND FAMILY SERVICES

Child Care and Development Associate Degree

Schoolcraft program code # AAS.00020

To work effectively with children, early child educators must be sensitive to and understand the developmental stages of children. This curriculum contains theoretical and practical experiences to prepare students to work in early childhood programs in a variety of settings.

The required practicum experiences at the College's lab school, the Children's Center, expose students to best practices in early childhood.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses and all College Requirements qualify for the Associate in Applied Science Degree.

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

ENG 100 and ENG 106	Communication Skills / Business English	3 / 3
OR		
ENG 101 and ENG 102	English Composition / English Composition	3 / 3
and		
COMA 103	Fundamentals of Speech	3
COLLS 111	Electronic Portfolio	1
BUS 105 or MATH 105 or	Business Mathematics / Mathematics for Elementary Teachers 1	3 / 4
MATH 113	Intermediate Algebra for College Students	4
SCIENCE*	Science with lab (select from list below)	4–5
HUM 106	Introduction to Art and Music	1
POLS 105	Survey of American Government	3
PSYCH 153 or PSYCH 201	Human Relations / General Psychology	3 / 4

21–27

Program Courses

CCD 101	Preschool Child Care	3
CCD 116	Child Development	3
CCD 118	Infant and Toddler Care	3
CCD 150	Child Care Practicum 1	3
CCD 100	Introduction to Child Welfare Services	3
CCD 216	The Child with Special Needs	3
CCD 126	Creative Activities	3
CCD 170	Behavior Management	3
CCD 211	Children and Youth in Groups	3
CCD 214	Operation and Maintenance of a Child Care Facility	3
CCD 121 or CCD 221	The Adolescent / Early Literacy and Numerical Thinking	3 / 3
CCD 200	Child Care Practicum 2	3
CCD 115	School Age Child Care	3
COLLS 211	Exit Electronic Portfolio	1

40

Science Options

*Select one of the following to fulfill the science with lab requirement:

BIOL 101	General Biology	4
CHEM 111	General Chemistry	4
GEOG 105	Earth Science for Elementary Teachers	4
GEOL 133	Physical Geology	4
PHYS 104	Introduction to Astronomy	4
PHYS 123	Applied Physics	5

PROGRAM TOTAL 61–67 CREDITS

The above program meets all Core Skills requirements.

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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses qualify for a Certificate of Program completion.

Program Courses

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
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
CCD 170	Behavior Management	3

PROGRAM TOTAL 33 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 3 percent of centers in Michigan and 7 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 Development Associate (CDA) One-Year Certificate

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.*

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. The following are the required courses necessary to meet CDA competencies.

Program Courses

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—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 the handicap.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses qualify for a certificate of program completion.

Program Courses

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
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
CCD 170	Behavior Management	3

PROGRAM TOTAL 33 CREDITS

Child Care—Special Needs Paraprofessional Associate Degree

Schoolcraft program code # AAS.00021

Working with disabled children and adults 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 coaching 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 No Child Left Behind legislation.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses and all College Requirements qualify for the Associate in Applied Science Degree.

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

BIOL 101	General Biology	4
ENG 100 and	Communication Skills	3
ENG 106	Business English	3
OR		
ENG 101 and	English Composition	3
ENG 102 and	English Composition	3
COMA 103	Fundamentals of Speech	3
COLLS 111	Electronic Portfolio	1
BUS 105 or	Business Mathematics	3
MATH 111	Applications: Utility of Math	4
HUM 106	Introduction to Art and Music	1
PSYCH 153 or	Human Relations	3
PSYCH 201	General Psychology	4
		18–23

Program Courses

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 215	Methods and Curricula for Persons with Developmental Disabilities	3
CCD 126	Creative Activities	3
CCD 170	Behavior Management	3
CCD 140	Emotional Impairment	3
CCD 211	Children and Youth in Groups	3
CCD 130	Learning Disabilities	3
CCD 113	Special Education Programs and Supported Living	3
CCD 200	Child Care Practicum 2	3
CCD 100 or	Introduction to Child Welfare Services	3
CCD 101 or	Preschool Child Care	3
CCD 115	School Age Child Care	3
SOC 201	Principles of Sociology	3
COLLS 211	Exit Electronic Portfolio	1
		43

PROGRAM TOTAL 61–66 CREDITS

The above program meets all Core Skills requirements.

Child Care—Family Support Associate Degree

Schoolcraft program code # AAS.00243

The Family Support Associate Degree offers training in current best practices 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

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses and all College Requirements qualify for the Associate in Applied Science Degree.

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

BIOL 101	General Biology	4
ENG 100	Communication Skills	3
and		
ENG 106	Business English	3
OR		
ENG 101	English Composition	3
and		
ENG 102	English Composition	3
and		
COMA 103	Fundamentals of Speech	3
COLLS 111	Electronic Portfolio	1
BUS 105	Business Mathematics	3
or		
MATH 111	Applications—Utility of Math	4
HUM 106	Introduction to Art and Music	1
PSYCH 153	Human Relations	3
		18–22

Program Courses

CCD 180	Introduction to Family Support	3
CCD 116	Child Development	3
CCD 100	Introduction to Child Welfare Services	3
CCD 185	Empowering Families	3
SOC 209	Marriage and Family	3
CCD 216	The Child With Special Needs	3
SOC 205	Social Problems	3
CCD 211	Children and Youth in Groups	3
ANTH 201	Cultural Anthropology	3
CCD 202	Family Support Practicum	3
SOC 201	Principles of Sociology	3
SOC 220	Urban Sociology	3
COLLS 211	Exit Electronic Portfolio	1
Select two courses from below:		
CCD 101	Preschool Child Care	3
CCD 115	School Age Child Care	3
CCD 118	Infant and Toddler Care	3
CCD 121	The Adolescent	3
CCD 221	Early Literacy and Numerical Thinking	3
		43

PROGRAM TOTAL 61–65 CREDITS

The above program meets all Core Skills requirements.

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 practices and principles in family support. The program emphasizes the identification of families' strengths and becoming familiar with and linking families to community resources.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses qualify for a certificate of program completion.

Program Courses

CCD 180	Introduction to Family Support	3
CCD 100	Introduction to Child Welfare Services	3
CCD 116	Child Development	3
CCD 185	Empowering Families	3
CCD 216	The Child With Special Needs	3
CCD 211	Children and Youth in Groups	3
CCD 202	Family Support Field Practicum	3
SOC 201	Principles of Sociology	3
SOC 205	Social Problems	3
SOC 209	Marriage and Family	3
SOC 220	Urban Sociology	3

PROGRAM TOTAL 33 CREDITS

Notes:

COMPUTER AIDED DESIGN (CAD)

CAD-Mechanical Associate Degree

Schoolcraft program code # AAS.00170

As technology capability shifts from two-dimensional drafting to three-dimensional modeling, the training of technicians must also change. In addition to understanding the basic principles of dimensioning and drafting, future designers will need to understand the complete product development system. 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. All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses, Electives and all College Requirements qualify for the Associate in Applied Science Degree.

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

CAD 103	Engineering Graphics	3
ENG 100*	Communication Skills	3
ENG 106*	Business English	3
MET 102	Introduction to Materials Science	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
		23

Program Courses

CAD 105	Mechanical Engineering Drawing	4
DRFG 114	Descriptive Geometry	3
MFG 102	Manufacturing Processes	3
CAM 102	Introduction to Computer Numerical Control (CNC)	3
CAD 107	Detailing	4
MATH 119	Trigonometry	3
CAD 201	I-DEAS Level 1	4
DSGN 180	Machine Elements and Design	4
MET 114	Engineering Materials	3
DSGN 240	Tool and Die Design	4
DSGN 260	Jig and Fixture Design	4
		39

Electives

Select one of the following courses:

PHYS 123***	Applied Physics	5
ELECT 127	DC Circuits and Math Modeling	5
ELECT 135	Fluid Power	4
CHEM 111	General Chemistry	4
LASR 103***	Laser Concepts	4
		4–5

PROGRAM TOTAL 66–67 CREDITS

* Other courses meeting the Core Skills may be substituted.

** Math 113 may be waived if student has successfully completed High School Algebra II or based on student's placement test score.

*** Or higher level course.

The above program meets all Core Skills requirements.

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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses qualify for a certificate of program completion.

Program Courses

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
CAD 105	Mechanical Engineering Drawing	4
DSGN 113	Industrial Schematics with Animation	3
ELECT 128	AC Circuits and Mathematical Modeling	5
CAD 107	Detailing	4

PROGRAM TOTAL 32 CREDITS

CAD-Drafting-Technical One-Year Certificate

Schoolcraft program code # 1YC.00119

Skills developed 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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses qualify for a certificate of program completion.

Program Courses

CAD 103	Engineering Graphics	3
MFG 102	Manufacturing Processes	3
MATH 113	Intermediate Algebra for College Students	4
CAD 105	Mechanical Engineering Drawing	4
MET 102	Introduction to Materials Science	3
MATH 119	Trigonometry	3
CAD 107	Detailing	4
CAD 201	I-DEAS Level 1	4

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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses, Electives and all College Requirements qualify for the Associate in Applied Science Degree.

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

MATH 113	Intermediate Algebra for College Students	4
ENG 100	Communication Skills	3
PSYCH 153	Human Relations	3
ENG 106	Business English	3
COMPS 126	Technical Programming	3
MET 102	Introduction to Materials Science	3
HUM 106	Introduction to Art and Music	1
POLS 105	Survey of American Government	3
		23

Program Courses

MFG 102	Manufacturing Processes	3
CAM 102	Introduction to Computer Numerical Control (CNC)	3
CAD 101	Introduction to Computer Aided Drafting	3
MFG 103	Manufacturing Theory and Machine Operation	3
CAM 103	Computer Numerical Control Programming	3
ELECT 135	Fluid Power	4
MATH 119	Trigonometry	3
MET 114	Engineering Materials	3
LASR 103	Laser Concepts	4
CAM 205	CAD/CAM-Computer Aided Machining	3
QM 106	Introduction to Quality Systems	3
		35

Electives

ELECTIVE*		3

PROGRAM TOTAL 61 CREDITS

* Any 100 or 200 level course not previously taken.

The above program meets all Core Skills requirements.

COMPUTER GRAPHICS TECHNOLOGY

The Computer Graphics Technology Programs prepare 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. It is highly recommended that students meet with faculty for advice in selecting their electives. All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students wishing to pursue a Post-Associate Certificate must have a CGT Associate Degree or equivalent professional experience.

Students who satisfactorily complete a Computer Graphics Technology Certificate, Associate Degree or Post-Associate Certificate qualify for the respective Certificate or Associate Degree upon completion.

Computer Graphics Technology— Foundation One-Year Certificate

Schoolcraft program code # 1YC.00164

Program Courses

CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
CGT 127	Publishing—InDesign	3
ART 201	Art Appreciation	3
or		
CGT 151	Survey of Design	2
or		
CGT 244	History of Animation	3
CGT Elective		2

PROGRAM TOTAL 16–17 CREDITS

Computer Graphics Technology— 3D Animation One-Year Certificate

Schoolcraft program code # 1YC.00136

Program Courses

CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
CGT 155	Storyboarding	2
CGT 156	Photography	2
CGT 208	Premiere	3
CGT 244	History of Animation	3
CGT 215	Motion Graphics 1	3
CGT 247	3D Animation—Introduction	3
CGT 248	3D Animation—Model Building	3
CGT 249	3D Animation—Texture and Lighting	3
CGT 252	3D Animation—Animating	3
CGT 253	3D Compositing	3

PROGRAM TOTAL 37 CREDITS

Computer Graphics Technology— 3D Animation Post-Associate Certificate

Schoolcraft program code # PAC.00181

Program Courses

CGT 244	History of Animation	3
CGT 215	Motion Graphics 1	3
CGT 247	3D Animation—Introduction	3
CGT 248	3D Animation—Model Building	3
CGT 249	3D Animation—Texture and Lighting	3
CGT 252	3D Animation—Animating	3
CGT 253	3D Compositing	3

PROGRAM TOTAL 21 CREDITS

Computer Graphics Technology—Digital Art One-Year Certificate

Schoolcraft program code # 1YC.00136

Program Courses

ART 105	Basic Drawing 1	3
ART 106	Basic Design 1	3
CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
CGT 127	Publishing—InDesign	3
ART 115	Art History	4
or		
ART 116	Art History	4
ART 126	Basic Design 2	3
CGT 157	Prepress	2
CGT 226	Digital Imaging 2—Photoshop	3
		30

Electives

Select 1 Additional CGT or Department Approved Elective Course ... 2–3

PROGRAM TOTAL 32–33 CREDITS

Computer Graphics Technology—Digital Art Post-Associate Certificate

(Schoolcraft program code # PAC.00181)

Program Courses

ART 105	Basic Drawing 1	3
ART 106	Basic Design 1	3
ART 115	Art History	4
or		
ART 116	Art History	4
ART 126	Basic Design 2	3
CGT 226	Digital Imaging 2—Photoshop	3
		16

Electives

Select 2 Additional CGT or Department Approved Elective Courses .. 2–6

PROGRAM TOTAL 18–22 CREDITS

Computer Graphics Technology—Interactive Media and Game Design One-Year Certificate

Schoolcraft program code # 1YC.00136

Program Courses

CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
CGT 127	Publishing—InDesign	3
CGT 151	Survey of Design	2
CGT 141	Introduction to Interactive Media & Game Design	3
and		
CGT 206	Scripting for Interactive Media & Game Design	3
OR		
CGT 211	Flash	3
and		
CGT 212	Flash Action Scripting	3
CGT 110	Illustration—FreeHand	2
CGT 150	Typography	2
CGT 154	Sound Editing for Graphic Artists	2
CGT 155	Storyboarding	2
CGT 242	Advanced Interactive Media & Game Design	3

PROGRAM TOTAL 31 CREDITS

Computer Graphics Technology—Interactive Media and Game Design Post-Associate Certificate

Schoolcraft program code # PAC.00181

Program Courses

CGT 110	Illustration—FreeHand	2
CGT 141	Introduction to Interactive Media & Game Design	3
and		
CGT 206	Scripting for Interactive Media & Game Design	3
OR		
CGT 211	Flash	3
and		
CGT 212	Flash Action Scripting	3
CGT 150	Typography	2
CGT 154	Sound Editing for Graphic Artists	2
CGT 155	Storyboarding	2
CGT 242	Advanced Interactive Media & Game Design	3

PROGRAM TOTAL 17 CREDITS

Notes:

Computer Graphics Technology—Motion Graphics and Video One-Year Certificate

Schoolcraft program code # 1YC.00136

Program Courses

CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
CGT 244	History of Animation	3
CGT 150	Typography	2
CGT 155	Storyboarding	2
CGT 156	Photography	2
CGT 208	Premiere	3
CGT 247	3D Animation—Introduction	3
CGT 215	Motion Graphics 1	3
CGT 246	Motion Graphics 2	3

PROGRAM TOTALS 30 CREDITS

Computer Graphics Technology—Motion Graphics and Video Post-Associate Certificate

Schoolcraft program code # PAC.00181

Program Courses

CGT 244	History of Animation	3
ART 125	Basic Drawing 2—Figure Drawing	3
CGT 155	Storyboarding	2
CGT 208	Premiere	3
CGT 247	3D Animation—Introduction	3
CGT 215	Motion Graphics 1	3
CGT 246	Motion Graphics 2	3

PROGRAM TOTAL 20 CREDITS

Computer Graphics Technology—Publishing One-Year Certificate

Schoolcraft program code # 1YC.00136

Program Courses

CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
CGT 127	Publishing—InDesign	3
CGT 151	Survey of Design	2
CGT 152	DHTML—Screen Design	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
		28

Electives

Select 1 Additional CGT or Department Approved Elective Course ... 2–3

PROGRAM TOTAL 30–31 CREDITS

Computer Graphics Technology—Publishing Post-Associate Certificate

Schoolcraft program code # PAC.00181

Program Courses

CGT 152	DHTML—Screen Design	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
		14

Electives

Select 1 Additional CGT or Department Approved Elective Course ... 2–3

PROGRAM TOTAL 16–17 CREDITS

Computer Graphics Technology—Web Design One-Year Certificate

Schoolcraft program code # 1YC.00136

Program Courses

CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
CGT 127	Publishing—InDesign	3
CGT 151	Survey of Design	2
CGT 152	DHTML—Screen Design	2
CGT 135	Web Graphics	3
CGT 211	Flash	3
CGT 236	Web Design	3
CGT 237	Dynamic Web Design with Cold Fusion	3
		28

Electives

Select 1 Additional CGT or CIS Course ... 2–3

PROGRAM TOTAL 30–31 CREDITS

Computer Graphics Technology—Web Design Post-Associate Certificate

Schoolcraft program code # PAC.00181

Program Courses

CGT 152	DHTML—Screen Design	2
CGT 135	Web Graphics	3
CGT 211	Flash	3
CGT 236	Web Design	3
CGT 237	Dynamic Web Design with ColdFusion	3
		14

Electives

Select 1 Additional CGT or CIS Course ... 2–3

PROGRAM TOTAL 16–17 CREDITS

Notes:

Computer Graphics Technology— 3D Animation Associate Degree

Schoolcraft program code # AAS.00028

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

MATH 113	Intermediate Algebra for College Students	4
ENG 101	English Composition	3
and		
ENG 102	English Composition	3
and		
COMA 103	Fundamentals of Speech	3
OR		
ENG 100	Communication Skills	3
and		
ENG 106	Business English	3
PHYS 123	Applied Physics	5
POLS 105	Survey of American Government	3
HUM106	Introduction to Art and Music	1
PSYCH 153	Human Relations	3
		22–25

Program Courses

CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
CGT 155	Storyboarding	2
CGT 156	Photography	2
CGT 208	Premiere	3
CGT 244	History of Animation	3
CGT 215	Motion Graphics 1	3
CGT 247	3D Animation—Introduction	3
CGT 248	3D Animation—Model Building	3
CGT 249	3D Animation—Texture and Lighting	3
CGT 252	3D Animation—Animating	3
CGT 253	3D Compositing	3
CGT 256	Portfolio—3D Reel Development	3
Select 1:		
CGT 250	Practical Application	3
CGT 270*	Internship	3
CGT 298	Honors Studies	3
		43

Electives

Select 1 Additional CGT Courses 2–3

* If selecting CGT 270 must take CGT 250 as your elective.

PROGRAM TOTAL 67–71 CREDITS

The above program meets all Core Skill requirements.

Computer Graphics Technology— Digital Art Associate Degree

(Schoolcraft program code # AAS.00028)

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

MATH 113	Intermediate Algebra for College Students	4
ENG 101	English Composition	3
and		
ENG 102	English Composition	3
and		
COMA 103	Fundamentals of Speech	3
OR		
ENG 100	Communication Skills 3	
and		
ENG 106	Business English	3
BIOL 101	General Biology	4
or		
CHEM 111	General Chemistry	4
or		
PHYS 104	Introduction to Astronomy	4
POLS 105	Survey of American Government	3
PSYCH 153	Human Relations	3
		20–23

Program Courses

ART 105	Basic Drawing 1	3
ART 106	Basic Design 1	3
CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
CGT 127	Publishing—InDesign	3
ART 115	Art History	4
or		
ART 116	Art History	4
ART 125	Basic Drawing 2—Figure Drawing	3
ART 126	Basic Design 2	3
CGT 157	Prepress	2
CGT 226	Digital Imaging 2—Photoshop	3
CGT 153	Portfolio Preparation	2
Select 1:		
CGT 250 *	Practical Application	3
CGT 270**	Internship	3
CGT 298	Honors Studies	3
		38

Electives

Select 2 Additional CGT or Department Approved Elective Courses 6–9

PROGRAM TOTAL 64–70 CREDITS

* If selecting CGT 250 must take CGT 231, 236, 242, or 252 as one of your two electives.

** If selecting CGT 270 must take CGT 250 as one of your two elective choices.

The above program meets all Core Skills requirements.

Computer Graphics Technology—Interactive Media and Game Design Associate Degree

Schoolcraft program code # AAS.00028

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

MATH 113	Intermediate Algebra for College Students	4
ENG 101 and	English Composition	3
ENG 102 and	English Composition	3
COMA 103 **OR**	Fundamentals of Speech	3
ENG 100 and	Communication Skills	3
ENG 106	Business English	3
BIOL 101 or	General Biology	4
CHEM 111 or	General Chemistry	4
PHYS 104	Introduction to Astronomy	4
HUM 106	Introduction to Art and Music	1
POLS 105	Survey of American Government	3
PSYCH 153	Human Relations	3
		21–24

Program Courses

CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
CGT 127	Publishing—InDesign	3
CGT 151	Survey of Design	2
CGT 141 and	Introduction to Interactive Media & Game Design	3
CGT 206 **OR**	Scripting for Interactive Media & Game Design	3
CGT 211 and	Flash	3
CGT 212	Flash Action Scripting	3
CGT 110	Illustration—FreeHand	2
CGT 150	Typography	2
CGT 154	Sound Editing for Graphic Artists	2
CGT 155	Storyboarding	2
CGT 242	Advanced Interactive Media & Game Design	3
CGT 153	Portfolio Preparation	2
Select 1:		
CGT 250	Practical Application	3
CGT 270*	Internship	3
CGT 298	Honors Studies	3
		36

Electives

Select 3 Additional CGT Courses 6–9

PROGRAM TOTAL 63–69 CREDITS

* If selecting CGT 270 must take CGT 250 as one of your three elective choices.

The above program meets all Core Skills requirements.

Computer Graphics Technology—Motion Graphics and Video Associate Degree

Schoolcraft program code # AAS.00028

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

MATH 113	Intermediate Algebra for College Students	4
ENG 101 and	English Composition	3
ENG 102 and	English Composition	3
COMA 103 **OR**	Fundamentals of Speech	3
ENG 100 and	Communication Skills	3
ENG 106	Business English	3
BIOL 101 or	General Biology	4
CHEM 111 or	General Chemistry	4
PHYS 104	Introduction to Astronomy	4
POLS 105	Survey of American Government	3
PSYCH 153	Human Relations	3
		20–23

Program Courses

CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
CGT 244	History of Animation	3
CGT 150	Typography	2
CGT 155	Storyboarding	2
CGT 156	Photography	2
CGT 208	Premiere	3
CGT 247	3D Animation—Introduction	3
CGT 215	Motion Graphics 1	3
CGT 246	Motion Graphics 2	3
CGT 256	Portfolio—3D Reel Development	3
Select 1:		
CGT 250 *	Practical Application	3
CGT 270**	Internship	3
CGT 298	Honors Studies	3
		39

Electives

Select 2 Additional CGT Courses 6–9

PROGRAM TOTAL 65–71 CREDITS

* If selecting CGT 250 must take CGT 231, 236, 242, or 252 as one of your two electives.

** If selecting CGT 270 must take CGT 250 as one of your two elective choices.

The above program meets all Core Skills requirements.

Computer Graphics Technology—Publishing Associate Degree

Schoolcraft program code # AAS.00028

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

MATH 113	Intermediate Algebra for College Students	4
ENG 101	English Composition	3
and		
ENG 102	English Composition	3
and		
COMA 103	Fundamentals of Speech	3
OR		
ENG 100	Communication Skills	3
and		
ENG 106	Business English	3
BIOL 101	General Biology	4
or		
CHEM 111	General Chemistry	4
or		
PHYS 104	Introduction to Astronomy	4
HUM 106	Introduction to Art and Music	1
POLS 105	Survey of American Government	3
PSYCH 153	Human Relations	3
		21–24

Program Courses

CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
CGT 127	Publishing—InDesign	3
CGT 151	Survey of Design	2
CGT 113	Publishing—QuarkXPress	2
CGT 150	Typography	2
CGT 157	Prepress	2
CGT 152	DHTML—Screen Design	2
CGT 226	Digital Imaging 2—Photoshop	3
CGT 231	Electronic Publishing	3
CGT 153	Portfolio Preparation	2
Select 1:		
CGT 250	Practical Application	3
CGT 270*	Internship	3
CGT 298	Honors Studies	3
		33

Electives

Select 3 Additional CGT Courses or Department Approved Elective Courses 6–9

PROGRAM TOTAL 60–66 CREDITS

* If selecting CGT 270 must take CGT 250 as one of your three elective choices.

The above program meets all Core Skills requirements.

Computer Graphics Technology—Web Design Associate Degree

Schoolcraft program code # AAS.00028

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

MATH 113	Intermediate Algebra for College Students	4
ENG 101	English Composition	3
and		
ENG 102	English Composition	3
and		
COMA 103	Fundamentals of Speech	3
OR		
ENG 100	Communication Skills	3
and		
ENG 106	Business English	3
BIOL 101	General Biology	4
or		
CHEM 111	General Chemistry	4
or		
PHYS 104	Introduction to Astronomy	4
HUM 106	Introduction to Art and Music	1
POLS 105	Survey of American Government	3
PSYCH 153	Human Relations	3
		21–24

Program Courses

CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging1—Photoshop	3
CGT 127	Publishing—InDesign	3
CGT 151	Survey of Design	2
CGT 152	DHTML—Screen Design	2
CGT 135	Web Graphics	3
CGT 211	Flash	3
CGT 236	Web Design	3
CGT 237	Dynamic Web Design with ColdFusion	3
CGT 153	Portfolio Preparation	2
Select 1:		
CGT 250	Practical Application	3
CGT 270*	Internship	3
CGT 298	Honors Studies	3
		33

Electives

Select 3 Additional CGT or CIS Courses 6–9

PROGRAM TOTAL 60–66 CREDITS

* If selecting CGT 270 must take CGT 250 as one of your three elective choices.

The above program meets all core Skills requirements.

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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses, Electives and all College Requirements qualify for an Associate in Applied Science Degree.

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

COMA 103	Fundamentals of Speech	3
CIS 115	Introduction to Computer Based Systems	3
ENG 101	English Composition	3
ENG 102	English Composition	3
HUM 106	Introduction to Art and Music	1
MATH 113	Intermediate Algebra for College Students	4
CIS 250	Systems Development and Design	4
POLS 105	Survey of American Government	3
PSYCH 153 or PSYCH 201	Human Relations or General Psychology	3 or 4
		27–28

Program Courses

ACCT 201	Principles of Accounting	4
CIS 129	Introduction to Programming Logic	3
CIS 170 or CIS 178	Microsoft Windows or Technical Microsoft Windows	3
CIS 175 or CIS 176	Visual Basic or Visual Basic.NET	3
CIS 211	Introduction to C++	2
CIS 225	Database Management	3
CIS 221	Advanced C++	2
CIS 255 or CIS 260	Introduction to LINUX or Introduction to UNIX	3
CIS 290	Object Oriented Programming with Java	3
		26

Electives

Select 8-9 credit hours from the classes listed below to fulfill the elective requirement:

CIS 120	Software Applications	3
CIS 122	Microsoft Outlook	2
CIS 125	Principles of Information Security	3
CIS 177	Visual Basic for Applications	3
CIS 185	Introduction to HTML	3
CIS 212	Introduction to CGI using Perl	3
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 238	JavaScript	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 275	Advanced Visual Basic	3
CIS 281	Data Structures and Introduction to Windows Programming	3

PROGRAM TOTAL 61–63 CREDITS

The above program meets all Core Skills requirements.

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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses qualify for a Certificate of Program completion.

Program Courses

CIS 115	Introduction to Computer Based Systems	3
CIS 120	Software Applications	3
ENG 101	English Composition	3
CIS 129	Introduction to Programming Logic	3
CIS 170 or CIS 178	Microsoft Windows or Technical Microsoft Windows	3
MATH 113	Intermediate Algebra for College Students	4
CIS 175 or CIS 176	Visual Basic or Visual Basic.NET	3
CIS 225	Database Management	3
		25

Electives

Select 2–3 credit hours from the electives listed below:

CIS 122	Microsoft Outlook	2
CIS 125	Principles of Information Security	3
CIS 251	IT Project Management	3

PROGRAM TOTAL 27–28 CREDITS

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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses, Electives and all College Requirements qualify for the Associate in Applied Science Degree.

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

COMA 103	Fundamentals of Speech	3
CIS 115	Introduction to Computer Based Systems	3
ENG 101	English Composition	3
ENG 102	English Composition	3
HUM 106	Introduction to Art and Music	1
MATH 113	Intermediate Algebra for College Students	4
POLS 105	Survey of American Government	3
CIS 250	Systems Development and Design	4
PSYCH 153 or PSYCH 201	Human Relations or General Psychology	3 or 4
		27–28

Program Courses

CIS 120	Software Applications	3
CIS 129	Introduction to Programming Logic	3
CIS 170 or CIS 178	Microsoft Windows or Technical Microsoft Windows	3
CIS 180	Spreadsheet Applications—Current Software	3
CIS 175 or CIS 176	Visual Basic or Visual Basic.NET	3
CIS 215	Advanced Software Applications	3
CIS 225	Database Management	3
CIS 235	Managing and Troubleshooting PCs	3
CIS 265	Networking 1	3
CIS 276	Networking 2	3
		30

Electives

Select 3-4 credit hours from the classes listed below to fulfill the elective requirement:

CIS 122	Microsoft Outlook	2
CIS 125	Principles of Information Security	3
CIS 171	Introduction to Networking	3
CIS 172	Network Security Fundamentals	3
CIS 173	Wireless Local Area Networks	3
CIS 227	Introduction to Structured Query Language (SQL)	1
CIS 251	IT Project Management	3
ACCT 201	Principles of Accounting	4
BUS 201	Business Statistics	3

PROGRAM TOTAL 60–62 CREDITS

The above program meets all Core Skills requirements.

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. All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. The post-associate certificate is awarded upon successful completion of 15 credit hours (exact number may vary slightly due to credit value of courses).

Program Courses

CIS 177	Visual Basic for Applications	3
CIS 185	Introduction to HTML	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	Managing and Troubleshooting PCs	3
CIS 238	JavaScript	3
CIS 250	Systems Development and Design	4
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 can be taken through independent study.

Notes:

Computer Information Systems—Web Specialist 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 of 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 to program for the Web. It provides the working knowledge of various programming languages, multimedia technologies, graphic development, and Web design tools. The Internet Professional may be involved with designing, developing, operating, maintaining and managing Web-based publishing.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses, Electives and all College Requirements qualify for the Associate in Applied Science Degree.

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

MATH 113	Intermediate Algebra for College Students	4
CIS 129	Introduction to Programming Logic	3
ENG 101	English Composition	3
ENG 102	English Composition	3
COMA 103	Fundamentals of Speech	3
POLS 105	Survey of American Government	3
CIS 250	Systems Development and Design	4
PSYCH 153 or	Human Relations	3
PSYCH 201	General Psychology	4
HUM 106	Introduction to Art and Music	1
		27–28

Program Courses

CGT 110 or	Illustration—FreeHand	2
CGT 123	Illustration-Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
CIS 171	Introduction to Networking	3
CGT 152 or	DHTML—Screen Design	2
CIS 185	Introduction to HTML	3
CGT 135	Web Graphics	3
CIS 212	Introduction to CGI Using Perl	3
CIS 233	Active Server Pages	3
CGT 236	Web Design	3
CIS 238	JavaScript	3
		25–27

Electives

Select 9 credit hours from the classes listed below to fulfill the elective requirement:

CIS 123	Introduction to E-Commerce	3
CIS 125	Principles of Information Security	3
CIS 176	Visual Basic.NET	3
CIS 223	Introduction to C#	3
CIS 225	Database Management	3
CIS 255	Introduction to LINUX	3
CIS 256	Introduction to XML	3
CIS 283	NetPrep Introduction to Internet Technologies	3
CGT 206	Scripting for Interactive Media	3
CGT 211	Flash	3
CGT 237	Dynamic Web Design with ColdFusion	3
CGT 246	Motion Graphics 2	3

PROGRAM TOTAL 61–64 CREDITS

The above program meets all Core Skills requirements.

Computer Information Systems—Web Specialist One-Year Certificate

Schoolcraft program code #1YC.00241

The technology of the Internet is constantly evolving both in terms of delivery infrastructure and Web site development tools. To stay abreast of 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 certificate is designed to provide students with an overview of the technical programming and graphic design areas for Web page development.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Student who satisfactorily complete the Program Courses qualify for a Certificate of Program completion.

Program Courses

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

PROGRAM TOTAL 28–30 CREDITS

Computer Information Systems—Networking Technology Integration 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. This program provides a complete introductory program for students or adult learners who are new to the field. For students who have networking experience, this program also offers more advanced networking study.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses qualify for a Certificate of Program completion.

Program Courses

CIS 171	Introduction to Networking	3
CIS 178	Technical Microsoft Windows	3
CIS 235	Managing and Troubleshooting PCs	3
CIS 251	IT Project Management	3
CIS 267	Home Technology Integration	4
CIS 271	Local Area Networks	3
CIS 272	Wide Area Networks	3
CIS 273	TCP/IP and Network Architectures	3
ENGR100	Introduction to Engineering and Technology	3
		28

Electives

Select 3 credit hours from the classes listed below to fulfill the elective requirement:

CIS 170	Microsoft Windows	3
CIS 172	Network Security Fundamentals	3
CIS 173	Wireless Local Area Networks	3
CIS 255	Introduction to LINUX	3

PROGRAM TOTAL 31 CREDITS

COMPUTER SERVICE

Computer Service Technician One-Year Certificate

Schoolcraft program code # 1YC.00159

Computer Service Technicians provide technical support for computer systems, PCs, 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 PCs, as well as network wiring and standards. The technician will also assist in the installation and maintaining of computer systems, networks, and software.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who complete the Program Courses qualify for a Certificate of Program completion.

Program Courses

ELECT 127	DC Circuits and Mathematical Modeling	5
ELECT 119	Basic Measurements and Reporting Skills	3
COMPS 124	Introduction to Personal Computers and Software	3
COMPS 126	Technical Programming	3
CIS 235	Managing and Troubleshooting PCs	3
CIS 265	Networking 1	3
COMPS 147	Computer and Peripheral Maintenance and Management	4
ELECTIVE*	CIS	3
ELECTIVE*	CIS	3

PROGRAM TOTAL 30 CREDITS

* Any CIS course not previously taken.

Notes:

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 earn 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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses and all College Requirements qualify for an Associate in Applied Science Degree.

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

ENG 100	Communication Skills	3
PSYCH 153	Human Relations	3
BUS 105	Business Math	3
ENG 116	Technical Writing	3
COMA 103	Fundamentals of Speech	3
POLS 105	Survey of American Government	3
CIS 105	Computer Orientation	1
HUM 106	Introduction Art and Music	1
BUS 217	Business Management	3
or		
BIOL 101	General Biology	4
		23–24

Program Courses

BUS 101	Introduction to Business	3
BUS 103	Organizing a Small Business	3
ACCT 103	Introduction to Accounting	4
BUS 104	Operating a Small Business	3
		13

PROGRAM TOTAL 36–37 CREDITS

The above program meets all Core Skills requirements.

Notes:

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 qualify for an Associate in Applied Science Degree.

This program requires a special admissions process. Contact the Public Safety Education Office at 734-462-4747 to complete an application.

FIRST YEAR

Fall Semester

CJ 113	Introduction to 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 or ENG 101	Communication Skills / 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 or ENG 116	English Composition / 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

* Any 100 or 200 level course not previously taken.

The above program meets all Core Skills requirements.

For more information about certification please contact:

Michigan Commission on Law Enforcement Standards (MCOLES)
7426 North Canal Road
Lansing, MI 48913
517-322-3966

mcoles.org

Criminal Justice Associate Degree with Academy

Schoolcraft program code # AAS.00086

In this program, the criminal justice courses are restricted to students who are 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 certifiable 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 qualify for an Associate in Applied Science Degree.

This program requires a special admissions process. Contact the Public Safety Education Office at 734-462-4747 to complete an application.

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 or ENG 101	Communication Skills / 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 or ENG 102	Technical Writing / 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

PROGRAM TOTAL 62 CREDITS

The above program meets all Core Skills requirements.

For more information about certification please contact:

Michigan Commission on Law Enforcement Standards (MCOLES)
7426 North Canal Road
Lansing, MI 48913
517-322-3966

mcoles.org

CULINARY ARTS

Culinary Arts Associate Degree

Schoolcraft program code # AAS.00087

The Culinary Arts Associate Degree Program provides the skills necessary to enter food service occupations at advanced levels. 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 classical cooking techniques. Food purchasing and storage functions, menu formulation, terminology, and decorative culinary skills are also covered.

This program contains some courses restricted to students officially admitted to this program. Additionally, CAP 102, Culinary Sanitation or proof of current ServSafe certification as well as CAP 103, Introduction to Professional Cooking Skills and Techniques are pre-program requirements. The Core Skills portion of the curriculum is vital to students' development.

Students who satisfactorily complete the Culinary Arts Program, including electives and all Core Skills requirements qualify for an Associate in Applied Science Degree.

This program requires a special admissions process. Contact the Admission Office at 734-462-4426 or admissions@schoolcraft.edu to complete an application.

Admission Prerequisites

These courses are pre-program requirements and not included in degree program totals.

CAP 102*	Culinary Sanitation	2
CAP 103	Introduction to Professional Cooking Skills and Technique	5
		7

FIRST YEAR

Fall Semester

CAP 144	Baking	4
CAP 124	Breakfast and Pantry	4
CAP 125	Pastries 1	4
ENG 100***	Communication Skills	3
		15

Winter Semester

CAP 142	Butchery	4
CAP 128	Introduction to Food Techniques	4
CAP 143	Dining Room Service	4
BUS 105 or ACCT 103	Business Mathematics Introduction to Accounting	3 4
		15–16

Spring/Summer Semester

CHEM 100	Introduction to the Chemistry of Food for Culinary Arts	4
ENG 106***	Business English	3
ART 201	Art Appreciation	3
CAP 241**	Culinary Nutrition	2
		12

SECOND YEAR

Fall Semester

CAP 227	Restaurant Cooking and Preparation	4
CAP 242	Á la Carte	4
CAP 229	International Cuisine	4
PSYCH 153	Human Relations	3
ELECTIVES	Select two courses from list below	5-7
		20–22

Winter Semester

CAP 240	Pastries 2	4
CAP 215	Charcuterie	4
CAP 243	Storeroom Operations	3
POLS 105	Survey of American Government	3
		14

PROGRAM TOTAL 76–79 CREDITS

* If student provides documentation of current ServSafe certification, CAP 102 is not required. This course is also open to any Schoolcraft student.

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

*** If you plan to transfer, take ENG 101, ENG 102 and COMA 103 in place of ENG 100 and ENG 106.

Electives

Select two courses (5–7 credit hours) from the classes listed below to fulfill the elective requirement:

ART 105	Basic Drawing 1	3
BUS 122	Advertising	3
BUS 207	Business Law	3
BUS 217	Business Management	3
BUS 220	Supervision	3
BUS 226	Principles of Marketing	3
CIS 120	Software Applications	3
CM 107**	Food and Culture	3
CM 108	Introduction to Hotel—Hospitality Management	2
CM 109**	Hospitality Law	3
CM 203	Restaurant Concepts and Design	3
CM 210**	Wine and Spirits	3
CM 211	Culinary Marketing for Restaurant Industry	3
CAP 190	Externship	3
CAP 247**	Banquets and Catering	3
CAP 260**	Competitive Ice Carving	3
CAP 265**	Advanced Competitive Ice Carving	3
CAP 267	Chocolatier	4
CAP 295	Salon Competition 1	3
CAP 296	Salon Competition 2	3

The above program meets all Core Skills requirements.

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 courses.

This program requires a special admissions process. Contact the Admission Office at 734-462-4426 or admissions@schoolcraft.edu to complete an application.

Admission Prerequisites

These courses are pre-program requirements and not included in program totals.

CAP 102*	Culinary Sanitation	2
CAP 103	Introduction to Professional Cooking Skills and Techniques	5
		7

Fall Semester

CAP 144	Baking 1	4
CAP 124	Breakfast and Pantry	4
CAP 125	Pastries 1	4
BUS 105	Business Mathematics	3
ENG 100***	Communication Skills	3
		18

Winter Semester

CAP 142	Butchery	4
CAP 128	Introduction to Food Techniques	4
CAP 143	Dining Room Service	4
ENG 106***	Business English	3
CAP 241**	Culinary Nutrition	2
		17

PROGRAM TOTAL 35 CREDITS

* If student provides documentation of current ServSafe certification, CAP 102 is not required. This course is also open to any Schoolcraft student.

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

*** If you plan to transfer, take ENG 101, ENG 102 and COMA 103 in place of ENG 100 and ENG 106.

Notes:

CULINARY BAKING AND PASTRY ARTS

Culinary Baking and Pastry Arts One-Year Certificate

Schoolcraft program code # 1YC.00247

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.

This program contains some courses restricted to students officially admitted to this program. Students who satisfactorily complete this program qualify for a certificate in Baking and Pastry Arts.

This program requires a special admissions process. Contact the Admission Office at 734-462-4426 or admissions@schoolcraft.edu to complete an application.

Admission Prerequisites

These courses are pre-program requirements and not included in program totals.

CAP 102*	Culinary Sanitation	2
CBPA 103	Introduction to Baking and Pastry Skills and Techniques	2
		4

Fall Semester

CBPA 125	Pastries	20

Winter Semester

CBPA 144	Baking	15

PROGRAM TOTAL 35 CREDITS

* If student provides documentation of current ServSafe certification, CAP 102 is not required. This course is also open to any Schoolcraft student.

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 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).

Fall Semester

CM 213	Culinary Management for Restaurant Operations	3
CM 203	Restaurant Concepts and Design	3
CM 222	Management Accounting for Restaurant Industry	4
		10

Winter Semester

CM 107	Food and Culture	3
CM 211	Culinary Marketing for the Restaurant Industry	3
		6

Suggested Program Electives

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.

Notes:

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. Escoffier's Brigade System kitchen was established in order to serve fine cuisine in separate courses while maintaining the quality and integrity of each recipe. Created in a military model, Escoffier's Brigade System established separate stations within the kitchen that functioned as their own domain responsible for part of a meal or banquet. The chef acts as the general with each station headed by a chef who is equivalent to a captain, directing cooks who are equivalent to the infantryman. Even the chef's double-breasted jacket was styled after the military dress of the day. That proud history and tradition is still carried on in some form in today's modern hotel and restaurant kitchens. The system is still efficient and has prevailed for almost a century.

THE BRIGADE PROGRAM

Schoolcraft College Culinary Arts Department has created a unique graduate level program based on this system of kitchen organization. This advanced culinary arts program will run for 45 weeks, four days a week, for seven hours a day and is intended to propel graduates 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 Schoolcraft's VisTaTech Center.

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 consecutive semesters, each student will have worked every station in the kitchen and gained the kind of practical experience and confidence that may have taken years to achieve in a restaurant or hotel kitchen.

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. 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.

ADMISSION REQUIREMENTS

Successful completion of a Culinary Arts Associates Degree or equivalent qualifications, completion of sanitation and nutrition courses or completion of American Culinary Federation approved seminars or equivalent certification.

One year of work experience is preferred. Each prospective student will be given a personal interview and an entrance examination before being admitted to the Brigade program.

Fall Semester		
CAPA 209	Introduction to Brigade	1
CAPA 215	Saucier and Sauté	6
CAPA 216	Fish and Hot Appetizer	6
		13
Winter Semester		
CAPA 210	Restaurant Demonstration Week	1
CAPA 217	Garde Manger and Vegetable Cooking	6
CAPA 218	Roast and Meat Butchery	6
		13
Spring Semester		
CAPA 219	Grill and Meat Butchery	6
CAPA 235*	European Study Tour	1
CAPA 220	Restaurant Desserts	6
		13

PROGRAM TOTAL 39 CREDITS

* Additional fee for European tour. Independent Study and reporting is available as an alternative to this course.

Students must contact the Director of Culinary Arts for more information prior to enrolling in the course.

Notes:

ELECTRONIC TECHNOLOGY

Electronic Technology Associate Degree

Schoolcraft program code # AAS.00120

This 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.

The program is not directly aimed at specific products. 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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses, Electives and all

College Requirements qualify for the Associate in Applied Science Degree.

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

ELECT 127	DC Circuits and Mathematical Modeling	5
ENG 100*	Communication Skills	3
ENG 106*	Business English	3
ELECT 128	AC Circuits and Mathematical Modeling	5
COMPS 126	Technical Programming	3
HUM 106	Introduction to Art and Music	1
POLS 105	Survey of American Government	3
PSYCH 153	Human Relations	3
		26

Program Courses

ELECT 119	Basic Measurement and Reporting Skills	3
COMPS 124	Introduction to Personal Computers and Software	3
ELECT 135	Fluid Power	4
ELECT 237	Programmable Logic and IndustrialControls	4
ELECT 129	Diodes and Transistors	3
ELECT 226	Digital Logic Circuits	4
ELECT 134	Introduction to Microcontrollers	3
ELECT 206	Operational Amplifiers and Linear Integrated Circuits	4
ELECT 229	Electronics Troubleshooting	3
		31

Electives

ELECTIVE**		3–4

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.

Electronics Service One-Year Certificate

Schoolcraft program code # 1YC.00125

The one-year certificate for electronics provides the student with a solid foundation for many jobs that require a thorough understanding of electronic fundamentals. Completion of the certificate program also offers the student the opportunity to pursue advanced technical credentials in health care, in manufacturing, or in computer systems. Further opportunities exist for transfer to 4-year institutions in specific areas. See the Counseling Department for help if this is an area of interest.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses qualify for a Certificate of Program completion.

Program Courses

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

PROGRAM TOTAL 30 CREDITS

Notes:

EMERGENCY MEDICAL TECHNOLOGY

Emergency Medical Technology Associate Degree

Schoolcraft program code # AAS.00250

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 percent or higher will receive a certificate of completion and be eligible for the State licensure. Practical skills are graded on a pass/fail basis, and students must pass all practical exams to successfully complete each course. 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 which 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.

Upon successfully completing all Core Skills requirements, a student will qualify for an Associate in Applied Science Degree.

FIRST YEAR

Spring Session

EMT 108	Emergency Medical Technology—Basic	10.5

Fall Semester

EMT 201	Paramedic Technology 1	12.5

Winter Semester

EMT 202	Paramedic Technology 2	12.5

Spring Session

EMT 203	Internship Experience	9.5

SECOND YEAR

Fall Semester

ENG 100	Communication Skills	3
BUS 105	Business Mathematics	3
CIS 105	Computer Orientation	1
POLS 105	Survey of American Government	3
		10

Winter Semester

ENG 116	Technical Writing	3
PSYCH 153	Human Relations	3
HUM 106	Introduction to Art and Music	1
QM 106	Introduction to Quality Systems	3
		10

PROGRAM TOTAL 65 CREDITS

Elective (Optional)

EMT 114	Emergency Medical Technology—Specialist	7

The above program meets all Core Skills requirements.

Emergency Medical Technology One-Year Certificate

Schoolcraft program code # 1YC.00024

The Emergency Medical Technology One-Year Certificate will be awarded to students who successfully complete EMT 108, 201, 202 and 203 with 80 percent or higher. This will qualify those students as eligible for the State licensure examination as a paramedic.

FIRST YEAR

Spring Session

EMT 108	Emergency Medical Technology—Basic	10.5

SECOND YEAR

Fall Semester

EMT 201	Paramedic Technology 1	12.5

Winter Semester

EMT 202	Paramedic Technology 2	12.5

Spring Session

EMT 203	Internship Experience	9.5

PROGRAM TOTAL 45 CREDITS

Elective (Optional)

EMT 114	Emergency Medical Technology—Specialist	7

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.

Notes:

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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Environmental Technology Program and all Core Skills qualify for an Associate Degree in Applied Science.

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

ENG 100 and		
ENG 116	Technical Writing	3
OR		
ENG 101 and		
ENG 102	English Composition	3
COMA 103	Fundamentals of Speech	3
MATH 113*	Intermediate Algebra for College Students	4
CIS 115**	Introduction to Computer Based Systems	3
CHEM 111	General Chemistry	4
GEOL 133 or		
GEOG 130	Physical Geography	4
HUM 106***	Introduction to Art and Music	1
POLS 105	Survey of American Government	3
PE 121	First Aid and Personal Safety	2
		29–32

Program Courses

BIOL 101	General Biology	4
BIOL 243	Microbiology	4
GEOG 212	Environmental Science	3
MATH 119	Trigonometry	3
ENVR 107	Soil Mechanics	4
ENVR 204	Introductory Surveying	3
ENVR 206	Environmental Law and Regulations	3
ENVR 211	Health and Safety Training for Handling Hazardous Materials (40-hour OSHA Training)	3
ENVR 215	Environmental Seminar	1
ENVR 218 or		
GEOG 217	Water Resources	3
ENVR 231	Field Co-op Experience	5
		32

PROGRAM TOTAL 61–64 CREDITS

* Math 113 may be waived if student has successfully completed High School Algebra II or based on student's placement test score.

** CIS 115 or a higher CIS course that satisfies Core Skills requirements.

The above program meets all Core Skills requirements.

FIRE TECHNOLOGY

Fire Technology Associate Degree

Schoolcraft Program code # AAS.00177

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 qualifies for an Associate in Applied Science Degree with emphasis in Fire Technology.

Contact the Admissions Office at 734-462-4426 or admissions@schoolcraft.edu to complete an application.

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 108	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	Introduction to Security	3
FIRE 130	Firefighting Tactics and Strategy	3
FIRE 135	Fire Protection Systems	3
FIRE 205	Fire Department Organization and Administration	3
FIRE 207	Fire Company Officer	3
SOC 210	Cultural Diversity	3

**** 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.

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 qualifies for an Associate in Applied Science Degree with emphasis in Fire Technology.

Contact the Admissions Office at 734-462-4426 or admissions@schoolcraft.edu to complete an application.

FIRST YEAR

Fall Semester

FIRE 124	Fire Academy	20

Winter Semester

ENG 100	Communication Skills	3
EMT 108	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	Introduction to Security	3
FIRE 130	Firefighting Tactics and Strategy	3
FIRE 135	Fire Protection Systems	3
FIRE 205	Fire Department Organization and Administration	3
FIRE 207	Fire Company Officer	3
SOC 210	Cultural Diversity	3

**** 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.

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, currently seeking employment, and/or volunteer 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 percent or better on test scores and to score at least 70 percent on their final exam to receive a passing grade of 2.0. The EMT course requires an average of 80 percent on tests and an 80 percent on the final for a grade of 3.0. Those scoring below 80 percent will receive a 0.0 for the course. 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 will qualify for a Firefighter Technology Certificate.

Contact the Admissions Office at 734-462-4426 or admissions@schoolcraft.edu to complete an application.

FIRST YEAR

Fall Semester

Fire 112	Firefighter 1 Basic Fire Suppression	10

Winter Semester

FIRE 119	Firefighter 2—Advanced Fire Suppression	10

Spring Session

EMT 108	Emergency Medical Technology—Basic	10.5

PROGRAM TOTAL 30.5 CREDITS

(ALTERNATE) FIRST YEAR

Fall Semester

FIRE 124	Fire Academy	20

Winter Semester

EMT 108	Emergency Medical Technology—Basic	10.5

Notes:

HEALTH INFORMATION TECHNOLOGY

Health Information Technology Associate Degree

Schoolcraft program code # AAS.00153

The Health Information Technology 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 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 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 the 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. The program is designed for the full-time or part-time student.

Students who satisfactorily complete the Program Courses, Electives and all College Requirements qualify for the 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).

This program requires a special admissions process. Contact the Admission Office at 734-462-4426 or admissions@schoolcraft.edu to complete an application.

ADMISSION PREREQUISITES

BIOL 236*	Human Anatomy and Physiology	5
HIT 104	Medical Terminology	4
CIS 120	Software Applications	3
		12

FIRST YEAR

Fall Semester

HIT 109	Principles of Health Information Management 1	3
HIT 110	Human Diseases	4
HIT 112	Basic Laboratory and Diagnostic Tests	2
HIT 114	Pharmacology for Health Professionals	2
HIT 220	Legal Aspects of Health Information	3
		14

Winter Semester

HIT 111	ICD-9-CM Classification	3
HIT 152	Computer Applications in Healthcare	2
HIT 154	Health Record Practicum	3
HIT 156	Clinical Affiliation 1	2
COMA 103	Fundamentals of Speech	3
ENG 101	English Composition	3
		16

Spring/Summer

ENG 102	English Composition	3

SECOND YEAR

Fall Semester

HIT 210	Healthcare Statistics for Health Information Management	3
HIT 216	Health Care Delivery Systems	2
HIT 217	Quality Management in Health Care	2
HIT 221	Basic Ambulatory Coding	3
HIT 256	Clinical Affiliation 2	2
		12

Winter Semester

HIT 213	Health Information Technology Seminar	1
HIT 219	Organization and Management	2
HIT 227	Intermediate ICD-9-CM Coding	3
HIT 229	Intermediate Ambulatory Coding	3
HIT 258	Clinical Affiliation 3	2
		11

PROGRAM TOTAL 68 CREDITS

* Students desiring transfer credit should substitute BIOL 237 & BIOL 238. BIOL 101 is a prerequisite to BIOL 236 and the BIOL 237-238 sequence. Please review and follow all course prerequisites. Student planning to transfer should take the following courses: POLS 105, PSYCH 201, HUM 106 and MATH 111.

The above program meets all Core Skills requirements.

For more information on 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

Notes:

Health—Coding Specialist Certificate

Schoolcraft program code # 1YC.00240

The Coding Specialist Program will prepare a student to review 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; applying 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.

This program requires a special admissions process. Contact the Admission Office at 734-462-4426 or admissions@schoolcraft.edu to complete an application.

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 110	Human Diseases	4
		7

SECOND YEAR

Fall Semester

HIT 112	Basic Laboratory and Diagnostic Tests	2
HIT 114	Pharmacology for Health Professionals	2
HIT 221	Basic Ambulatory Coding	3
		7

Winter Semester

HIT 227	Intermediate ICD-9-CM Coding	3
HIT 229	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

* Students desiring transfer credit should substitute BIOL 237 & BIOL 238. BIOL 101 is a prerequisite to BIOL 236 and the BIOL 237-238 sequence. Please review and follow all course prerequisites.

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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who successfully complete the Program Courses qualify for a certificate of program completion.

Program Courses

LASR 103	Laser Concepts	4
ELECT 127	DC Circuits and Mathematical Modeling	5
MATH 113	Intermediate Algebra for College Students	4
LASR 104	Laser Optics and Components	5
ELECT 128	AC Circuits and Mathematical Modeling	5
CAD 101	Introduction to Computer Aided Drafting	3
LASR 232	Laser Systems and Applications 1	4
ELECT 237	Programmable Logic and Industrial Controls	4

PROGRAM TOTAL 34 CREDITS

Notes:

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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. The student who successfully completes the Program Courses, Electives and all College Requirements qualifies for an Associate in Applied Science Degree.

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

ENG 100*	Communication Skills	3
ENG 106*	Business English	3
CAD 103	Engineering Graphics	3
MET 102	Introduction to Materials Science	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
		23

Program Courses

CAM 102	Introduction to Computer Numerical Control (CNC)	3
MFG 102	Manufacturing Processes	3
ENGR 100	Introduction to Engineering and Technology	3
CAM 103	Computer Numerical Control Programming	3
MFG 180	Industrial Entrepreneurship	2
CAM 205	CAD/CAM—Computer Aided Machining	3
MET 114	Engineering Materials	3
MFG 103	Manufacturing Theory and Machine Operation	3
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
		35

Electives

Select one from the following courses:

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
		3–4

PROGRAM TOTAL 61–62 CREDITS

* Other courses meeting the Core Skills requirements may be substituted.

The above program meets all Core Skills requirements.

MASSAGE THERAPY

Massage Therapy One-Year Certificate

Schoolcraft program code # 1YC. 00255

Massage therapy is the systematic manipulation of the soft tissues of the body for the purpose of increased circulation of blood and lymph, pain reduction, relaxation and restoration of health and well being of the client. The Massage Therapy Program is designed to prepare an individual in the field of soft tissue manipulation and is taught from a clinical perspective. It offers the opportunity to earn a Certificate in Massage Therapy. The certificate is granted after the successful completion of 34.5 credit hours of designated course work. All students completing the certificate will experience a total of 725 contact hours.

Massage therapists may be employed in private practice spa or a variety of health care settings including hospitals and managed care centers, rehabilitation and sports medicine clinics and group and private practices. Successful completion of the certificate readies the individual to sit for national certification testing through the National Certification Board for Therapeutic Massage and Bodywork.

The massage therapy program is dedicated to advancing the science and art of massage therapy.

This program requires special admissions process. Contact the Admissions Office at 734-462-4426 or admissions@schoolcraft.edu to complete an application.

FIRST YEAR

Fall Semester

MAS 101	Theory and Fundamentals of Massage Therapy	2
MAS 102	Basic Massage Applications	6
MAS 103	Fundamentals of Anatomy and Physiology	4
		12

Winter Semester

MAS 104	Intermediate Massage Applications	5
MAS 105	Systems of Support and Movement	7
		12

Spring/Summer

MAS 106	Palpatory Skills	3.5
MAS 107	Organ Systems Anatomy and Physiology	4
MAS 108	Massage Therapy Externship	3
		10.5

PROGRAM TOTAL 34.5 CREDITS

Notes:

MEDICAL ASSISTING

Medical Assisting One-Year Certificate

Schoolcraft program code # 1YC.00026

The Medical Assisting Program is a 36 credit hour 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 HIT and MA 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 (www.caahep.org) upon the 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.

This program requires a special admissions process. Contact the Admissions Office at 734-462-4426 or admissions@schoolcraft.edu to complete an application. Students may apply while enrolled in Fall Semester courses.

FIRST YEAR

Fall Semester

MA 134	Medical Insurance Coding	3
MA 140	Medical Office Procedures	3
HIT 104	Medical Terminology	4
MA 110	Phlebotomy	4
BIOL 105	Elementary Human Anatomy and Physiology 1	4
		18

Winter Semester

MA 174	Medical Laboratory Techniques	4
MA 180	Medical Office Clinical Procedures	4
MA 155**	Medical Insurance Billing	3
CIS 105*	Computer Orientation	1
PSYCH 153	Human Relations	3
		15

Spring Session

MA 195	Office Practicum	3

PROGRAM TOTAL 36 CREDITS

* CIS 120 may be substituted.

** This course may be taken prior to admission to the Medical Assisting Program.

For more information about accreditation please contact:
Commission on Accreditation of Allied Health
Education Programs (CAAHEP)
35 East Wacker Drive, Suite 1970
Chicago, Illinois 60601-2208
312-553-9355

www.aama-ntl.org

Medical Biller/Receptionist Skills Certificate

Schoolcraft program code # CRT.00350

The Medical Biller/Receptionist Certificate prepares the student to answer telephones, route calls, greet visitors, respond to inquiries from the public, perform medical insurance billing and provide information about the healthcare facility. Job opportunities are in medical offices, hospitals, clinics, health-related facilities, urgent care centers, and surgical centers.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. A Certificate of Completion is granted after completion of required courses with a grade of 2.0 or better.

HIT 104*	Medical Terminology	4
MA 134*	Medical Insurance Coding	3
MA 155*	Medical Insurance Billing	3
CIS 120	Software Applications	3
MA 140*	Medical Office Procedures	3

PROGRAM TOTAL 16 CREDITS

* Courses apply to the Medical Assisting Program.

Phlebotomy Skills Certificate

(Schoolcraft program code # CRT.00325)

The Phlebotomy Certificate prepares the student for employment as a phlebotomist with job opportunities in a medical office, clinic or healthcare facility. The phlebotomist is trained to draw blood through a method called venipuncture. A venipuncture is performed when a large specimen of blood is needed for testing.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. A Certificate of Completion is granted after completion of required courses with a grade of 2.0 or better.

HIT 104*	Medical Terminology	4
MA 110*	Phlebotomy	4
BIOL 105*	Elementary Human Anatomy and Physiology I	4
MA 140*	Medical Office Procedures	3
CIS 105	Computer Orientation	1

PROGRAM TOTAL 16 CREDITS

* Courses apply to the Medical Assisting Program.

Physician Office Medical Transcription Skills Certificate

Schoolcraft program code # CRT.00330

The Physician Office Medical Transcription Certificate prepares the student for employment as a transcriptionist with job opportunities in a medical office, clinic, or physician office. The physician office transcriptionist is responsible for typing medical letters, chart notes, consultations, history, physicals, discharge notes, and initial office evaluations.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. A Certificate of Completion is granted after completion of required courses with a grade of 2.0 or better.

OIS 100	Keyboarding 1	2
HIT 104*	Medical Terminology	4
HIT 114*	Pharmacology for Health Professionals	2
BIOL 105*	Elementary Human Anatomy and Physiology I	4
MA 140*	Medical Office Procedures	3
MT 108	Physician Office Transcription	2

PROGRAM TOTAL 17 CREDITS

* Courses apply to the Medical Assisting Program

Notes:

MEDICAL TRANSCRIPTION

Medical Transcription One-Year Certificate

Schoolcraft program code # 1YC.00029

Medical Transcription Program students must be officially admitted to the program. The Medical Transcription Program prepares the student for entry-level employment as a medical transcriptionist in a variety of health-care 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 patho physiology.
- 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).

This program requires a special admissions process. Contact the Admissions Office at 734-462-4426 or admissions@schoolcraft.edu to complete an application.

ADMISSION PREREQUISITES

BIOL 105*	Elementary Human Anatomy and Physiology 1	4
HIT 104*	Medical Terminology	4
OIS 105*	Office Communications and Editing Skills	3
		11

SAMPLE SCHEDULE OF COURSES

Fall Semester

MT 106*	Principles of Medical Transcription	2
MT 108	Physician Office Transcription	2
OIS 165*	Microsoft Word for Windows	3
HIT 112	Basic Laboratory and Diagnostic Tests	2
		9

Winter Semester

HIT 114	Pharmacology for Health Professionals	2
HIT 110	Human Diseases	4
MT 157	Medical Transcription Seminar	1
MT 158	Hospital Medical Transcription 1	5
		12

Spring Session

MT 159	Hospital Medical Transcription 2	5

PROGRAM TOTAL 37 CREDITS

* These courses may be taken prior to admission to the Medical Transcription Program, according to prerequisites.

METALLURGY AND MATERIALS SCIENCE

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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses, Electives and all College Requirements qualify for the Associate in Applied Science Degree.

Students seeking transfer to a baccalaureate program should request transfer guides provided by the department.

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

MET 102	Introduction to Materials Science	3
ENG 100	Communication Skills	3
ENG 106	Business English	3
CAD 103	Engineering Graphics	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
		23

Program Courses

ENGR 100	Introduction to Engineering and Technology	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 in 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 (S.M.A.W.)	3
WELD 262	Welding Metallurgy	3
		39

Electives

Select 3–5 credit hours from the classes listed below to fulfill the elective requirement:

CAM 102	Introduction to Computer Numerical Control	3
LASR 103	Laser Concepts	4
LASR 104	Laser Optics and Components	5
MET 160	Composite Materials	3
MFG 243	Manufacturing Systems Analysis	3

PROGRAM TOTAL 65–67 CREDITS

The above program meets all Core Skills requirements.

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 the 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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses qualify for a Certificate of Program completion.

Program Courses

MET 102	Introduction to Materials Science	3
MFG 102	Manufacturing Processes	3
QM 106	Introduction to Quality Systems	3
WELD 113	Shielded Metallic Arc Welding (S.M.A.W.)	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
MFG 243	Manufacturing Systems Analysis	3
MET 215	Mechanical Properties of Metals	3
MET 280	Special Problems in Materials Science	4
ELECTIVE*	MET	3

PROGRAM TOTAL 36 CREDITS

* Any Metallurgy course not previously taken.

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 students must have earned a minimum of an accredited Associate Degree in Applied Science.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. 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).

Program Courses

MET 211	Physical Metallurgy Structures	3
MET 215	Mechanical Properties of Metals	3
ELECTIVE*	MET	3–4
MET 280	Special Problems in Materials Science	4
ELECTIVE*	MET	3–4

Completion of a minimum of 15 credit hours is required.

Courses can be taken through independent study.

* A student must choose an applicable MET 200-level elective.

MUSIC

Music Foundations 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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses qualify for a Certificate of Program Completion.

Program Courses

MUSIC 104	Basic Materials in Music Theory	3
MUSIC 121	Class Piano 1	2
or		
MUSIC 131	Applied Music—Piano	2
MUSIC 105	Music Appreciation	3
MUSIC 124*	Chamber Singers	1
or		
MUSIC117*	Choir	2
or		
MUSIC 141	Music Ensemble 1	2
MUSIC 133	Applied Music—Voice	2
MUSIC135	Applied Music—Instrumental	2
MUSIC 164	Music History 1	2
or		
MUSIC 165	Music History 2	3
MUSIC 122		
or		
MUSIC 132	Class Piano 2	2
MUSIC 127*	Chamber Singers	1
or		
MUSIC 118*	Choir	2
or		
MUSIC 142	Jazz Band 1	2
MUSIC 134	Applied Music—Voice	2
or		
MUSIC 136	Applied Music—Instrumental	2
MUSIC 171	Music Technology	3
HUM 106	Introduction to Art and Music	1
Choose two:		
ELECTIVES	English Literature or Poetry, Art Appreciation Suggested	6

PROGRAM TOTAL 29–31 CREDITS

* Requires Audition.

Music Intermediate One-Year Certificate

Schoolcraft program code # 1YC.00163

Students must successfully complete the Music Foundations Certificate to begin the Music Intermediate Certificate. 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 in performing as soloists in voice or as instrumentalists in public recitals and concerts.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses qualify for a Certificate of Program completion.

Students should consult with the Music Department for additional details.

Program Courses

MUSIC 137	Sight Singing and Ear Training 1	2
MUSIC 164	Music History 1	3
MUSIC 153	Music Theory 1	3
MUSIC 217*	Choir	2
or		
MUSIC 224*	Chamber Singers	1
or		
MUSIC 241	Wind Ensemble 2	2
MUSIC 132	Applied Music—Piano	2
MUSIC 231	Applied Music—Piano	2
MUSIC 233	Applied Music—Voice	2
and		
MUSIC 234	Applied Music—Voice	2
OR		
MUSIC 235	Applied Music Instrumental	2
and		
MUSIC 236	Applied Music Instrumental	2
MUSIC 138	Sight Singing and Ear Training 2	2
MUSIC 165	Music History 2	3
MUSIC 154	Music Theory 2	3
MUSIC 218*	Choir	2
or		
MUSIC 227*	Chamber Singers	1
or		
MUSIC 242	Jazz Band 2	2
MUSIC 232	Applied Music—Piano	2
ELECTIVE	English Literature, Poetry, or Art Appreciation Suggested	3

PROGRAM TOTAL 31–33 CREDITS

* Requires Audition.

Music—Recording Technology Associate Degree

Schoolcraft program code # AAS.00244

The Recording Technology Associate Degree Program 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 recording.

Understanding the musical perspective is an important focus of the program. The required music courses will assist the recording engineer in better understanding 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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses and all College

Requirements qualify for the Associate in Applied Science Degree.

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

COMA 103	Fundamentals of Speech	3
ENG 101	English Composition	3
ENG 102	English Composition	3
MATH 113	Intermediate Algebra for College Students	4
PHYS 123	Applied Physics	5
HUM 106	Introduction to Art and Music	1
PSYCH 201	General Psychology	4
MUSIC 171	Music Technology	3
GEOG 133	World Regional Geography	4
		30

Program Courses

MUSIC 117	Choir	2
or		
MUSIC 124	Chamber Singers	1
or		
MUSIC 168	Synthesizer Ensemble	1
or		
MUSIC 141	Wind Ensemble 1	2
MUSIC 121	Class Piano 1	2
MUSIC 173	Basic Studio Techniques 1	3
MUSIC 104	Basic Materials in Music Theory	3
MUSIC 123	Keyboard Skills for Recording Engineers	1
MUSIC 174	Basic Studio Techniques 2	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
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
		34–35

PROGRAM TOTAL 64–65 CREDITS

The above program meets all Core Skills requirements.

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 musician's 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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses qualify for a Certificate of Program Completion.

Program Courses

MUSIC 104	Basic Materials in Music Theory	3
MUSIC 171	Music Technology	3
MUSIC 173	Basic Studio Techniques 1	3
MUSIC 121	Class Piano 1	2
ELECT 119	Basic Measurement and Reporting Skills	3
MUSIC 123	Keyboard Skills for Recording Engineers	1
MUSIC 130	Ear Training for Recording Engineers	2
MUSIC 172	Electronic Music: Intermediate MIDI—Sampling and Sound Editing	3
MUSIC 174	Basic Studio Techniques 2	3
MUSIC 105	Music Appreciation	3
MUSIC 273	Advanced Studio Techniques 1	3
MUSIC 274	Advanced Studio Techniques 2	3

PROGRAM TOTAL 32 CREDITS

Notes:

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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses, and upon recommendation of the music faculty, qualify for a Certificate of Program completion. Applied Music has an added fee.

Recommended as a two-year, part-time program.

Program Courses

MUSIC 131	Applied Music—Piano	2
MUSIC 164	Music History 1	3
MUSIC 153	Music Theory 1	3
MUSIC 143	Practice Teaching and Practicum in Piano Teaching 1	2
MUSIC 132	Applied Music—Piano	2
MUSIC 165	Music History 2	3
MUSIC 154	Music Theory 2	3
MUSIC 144	Practice Teaching and Practicum in Piano Teaching 2	2
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
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

PROGRAM TOTAL 42 CREDITS

Notes:

NURSING

Nursing—Registered Associate Degree (ADN)

Schoolcraft program code # AAS.00000

Nursing courses are open only to students who are officially admitted to the ADN Program.

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 finished by the completion of the nursing courses. Students must furnish and maintain uniforms, lab coats, or other appropriate apparel required by the institution to which 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.

Students who satisfactorily complete the Program Courses, Electives and all College Requirements qualify for the Associate in Applied Science Degree and are eligible to apply to write the National Council Licensure Examination for Registered Nursing (NCLEX-RN). This Nursing Program is offered at the Livonia Campus.

This program requires a special admissions process. Contact the Admission Office at 734-462-4426 or admissions@schoolcraft.edu to complete an application.

SAMPLE SCHEDULE OF COURSES

Admission Prerequisites and Supportive Courses

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
HUM 106	Introduction to Art and Music	1
		11

PROGRAM TOTAL 71 CREDITS

* Students who may transfer to a baccalaureate program should elect the BIOL 237-238 sequence. BIOL 101 is a prerequisite to BIOL 236 and the BIOL 237-238 sequence. Please review and follow all course prerequisites.

Note: In addition, COLLS 130, Applied Learning Theory–Nursing, is an available elective for pre-nursing students to develop study skills and success strategies. In addition to the above schedule, it is recommended that students take BIOL 115, Nutrition, prior to entering the program.

The above program meets all Core Skills requirements.

For more information on 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

www.michigan.gov

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
		10

Winter Semester

NURS 212	Nursing Care of Children and Families	5
NURS 214	Leadership and Nursing Management of Complex Clients	5
		10

PROGRAM TOTAL 27 CREDITS

In addition to these nursing courses, LPN to ADN students are required to complete the same supportive courses listed in the schedule of courses for the Nursing—ADN program.

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.

This program requires a special admissions process. Contact the Admission Office at 734-462-4426 or admissions@schoolcraft.edu to complete an application.

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

Summer Session

PN 137	Advanced Concepts in Practical Nursing	3

PROGRAM TOTAL 41 CREDITS

Notes:

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, communication skills, and leadership/management skills with an emphasis on the professional work ethic.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses and all College Requirements qualify for the Associate in Applied Science Degree.

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their program. However, these courses are not required before beginning Program Courses.

ENG 101	English Composition	3
ACCT 201	Principles of Accounting	4
OIS 165	Microsoft Word for Windows	3
COMA 103	Fundamentals of Speech	3
BUS 217	Business Management	3
POLS 105	Survey of American Government	3
PSYCH 153 or PSYCH 201	Human Relations or General Psychology	3 or 4
ENG 106	Business English	3
HUM 106	Introduction to Art and Music	1
		26–27

Program Courses

OIS 100	Keyboarding 1	2
OIS 102	Keyboarding 2	2
OIS 195	Time and Project Management	1
OIS 105	Office Communications and Editing Skills	3
BUS 101	Introduction to Business	3
CIS 120	Software Applications	3
OIS 265	Advanced Microsoft Word for Windows	3
OIS 255	Office Procedures	2
CIS 170	Microsoft Windows	3
OIS 185	Business Presentation 1—Fundamental Concepts	3
OIS 260	Office Administration	3
CIS 180	Spreadsheet Applications—Current Software	3
CIS 215	Advanced Software Applications	3
		34

PROGRAM TOTAL 60–61 CREDITS

The above program meets all Core Skills requirements.

Office Specialist One-Year Certificate

Schoolcraft program code # 1YC.00166

This certificate program focuses on office application software for today's administrative assistant. Computers 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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses qualify for a Certificate of Program Completion.

Program Courses

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
OIS 265	Advanced Microsoft Word for Windows	3
CIS 120*	Software Applications	3
OIS 185	Business Presentation 1—Fundamental Concepts	3
CIS 225	Database Management	3
CIS 122	Microsoft Outlook	2
CIS 180	Spreadsheet Applications—Current Software	3
CIS 215	Advanced Software Applications	3

PROGRAM TOTAL CREDITS 32

* Courses require a skill level equal to OIS 100 (Keyboarding 1). Students not possessing this skill level would be required to take OIS 100 before entering this Certificate Program.

Notes:

THEATRE

Theatre 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 to a four-year institution. This program includes performance and the technical aspects of theatre, including theory and practical experiences in theatre.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses and all College Requirements qualify for the Associate in Applied Science Degree.

College Requirements (Core Skills)

Students are encouraged to take their College Requirements early in their Program. However, these courses are not required before beginning Program Courses.

ENG 101	English Composition	3
ENG 102	English Composition	3
CIS 105	Computer Orientation	1
BIOL 101	General Biology	4
COMA 103	Fundamentals of Speech	3
MATH 113	Intermediate Algebra for College Students	4
PSYCH 201	General Psychology	4
POLS 105	Survey of American Government	3
ENG 245	Introduction to Literature—Drama	3
ENG 248	Introduction to Literature—Shakespeare	3
HIST 153	Contemporary America—U.S. History	3
		34

Program Courses

THEA 120	Introduction to Theatre	1
THEA 208	Acting 1	3
THEA 101	Introduction to Theatre	3
THEA 121	Theatre Activities	1
THEA 207	Stagecraft and Lighting	3
THEA 220	Theatre Activities	1
THEA 231	History of Theatre 1	3
THEA 221	Theatre Activities	1
THEA 241	Oral Interpretation of Literature	3
THEA 232	History of Theatre 2	3
THEA 204	Stage Makeup	2
THEA 209	Acting 2	3
		27

PROGRAM TOTAL 61 CREDITS

The above program meets all Core Skills requirements.

WELDING TECHNOLOGY

Welding-Fabrication One-Year Certificate

Schoolcraft program code # 1YC.00127

The Welding-Fabrication Program prepares students for employment under classifications such as welders and/or industrial fabrications. 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.

All courses are not offered each semester. Students should work with the Counseling Department to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses qualify for a Certificate of Program completion.

Program Courses

MET 102	Introduction to Materials Science	3
WELD 108	Shop Mathematics	2
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
WELD 210-214*	Exam Preparation	3
WELD 223	Fabrication-Student Project	4

PROGRAM TOTAL 33 CREDITS

***Exam Preparation: (Select one)**

WELD 210	Preparation for Welder Certification in Shielded Metallic Arc Welding (S.M.A.W).	3
WELD 211	Preparation for Welder Certification in Gas Metallic Arc Welding (G.M.A.W./M.I.G.)	3
WELD 212	Preparation for Welder Certification in G.T.A.W./T.I.G.	3
WELD 213	Preparation for Welder Certification in S.A.W.	3
WELD 214	Preparation for Welder Certification in Pipe Welding	3

Exams for above certificate will also be provided on an individual basis.

Notes:

Schoolcraft College

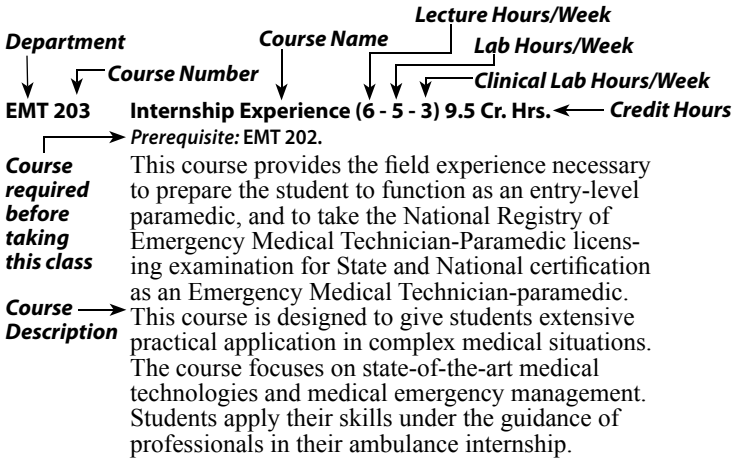
Course Descriptions

05-06

COURSE DESCRIPTIONS

KEY TO READING COURSE DESCRIPTIONS

SAMPLE COURSE LISTING:



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 have a prerequisite skill or lower level course necessary to complete before attempting more complex material. For maximum success, complete prerequisites before taking the actual course.
6. Some courses also list a corequisite course that is recommended to be taken in the same semester.

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ACCOUNTING

Associate Dean: Bruce Sweet, MA
Instructors: Professor LaVonda Ramey, MBA, CPA
Assistant Professor Michelle Randall, MBA, CPA
Adjunct Faculty

ACCT 103 Introduction to Accounting (4-0) 4 Cr. Hrs.
Prerequisite: **None.**
This is a 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 are also covered. This course is intended for students who want some accounting instruction prior to the Principles course and those not majoring in business or economics.

ACCT 201 Principles of Accounting (4-0) 4 Cr. Hrs.
Prerequisite: **None.**
This course covers the 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 will also be covered.

ACCT 202 Principles of Accounting (4-0) 4 Cr. Hrs.
Prerequisite: **ACCT 201.**
This course is a continuation of ACCT 201 with emphasis on corporations and an introduction to partnership accounting. Accounting for liabilities, investments, statement analysis,cash flow statement, management planning and an introduction to cost accounting will also be covered.

ACCT 221 Intermediate Accounting (4-0) 4 Cr. Hrs.
Prerequisite: **ACCT 202 required; ACCT 260 recommended.**
Accounting principles will be expanded in this course with an emphasis on assets. Accounting for valuing current assets, current liabilities and plant assets will also be covered. Fall only.

ACCT 222 Intermediate Accounting (4-0) 4 Cr. Hrs.
Prerequisite: **ACCT 202 required; ACCT 260 recommended.**
This course is a 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 will also be covered. Winter only.

ACCT 226 Cost Accounting (4-0) 4 Cr. Hrs.
Prerequisite: **ACCT 202 and CIS 180.**
Concepts of cost accounting as a management tool for control and planning will be introduced. Actual and standard cost methods as applied to job and process cost systems; accounting for materials, labor, and manufacturing overhead; and direct costing method; and cost accounting projects will be covered. Fall only.

ACCT 238 Federal Tax Accounting (4-0) 4 Cr. Hrs.
Prerequisite: **ACCT 201 recommended by accounting faculty.**
Federal income tax laws with emphasis on the regulations that relate to individuals and small business including state and local tax implications will be addressed. Preparation of tax forms and introduction to tax research are also addressed in this course. Winter only.

ACCT 260 Computer Based Accounting (3-0) 3 Cr. Hrs.
Prerequisite: **ACCT 202 and CIS 120.**
The student will complete comprehensive accounting problems using commercial software 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.

ACCT 261 Computerized Accounting (3-0) 3 Cr. Hrs.
Prerequisite: **ACCT 202 and CIS 120.**
The student will complete comprehensive commercial software 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 package at the discretion of the student and instructor. Outside lab time is required.

ACCT 262 Payroll Accounting—Manual to Computerized (3-0) 3 Cr. Hrs.
Prerequisite: **ACCT 202 and CIS 120.**
The student will complete a manual and computerized payroll practice set. These practice sets will include computing and paying wages and salaries to employees. The various phases of the Social Security Taxes, Federal Income Taxes, State Income Taxes and Unemployment Compensation Insurance and the laws relating to them will be explained. The course emphasizes analysis and journalization of payroll transactions and filing of appropriate payroll reports. Outside lab time is required.

ACCT 263 Computerized Accounting for Small Business (3-0) 3 Cr. Hrs.
Prerequisite: **ACCT 103 or ACCT 201 and CIS 120.**
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, accounts payable and purchases, cash receipts and cash disbursements. The student will prepare bank reconciliations and financial statements. The student will generate payroll entries, print payroll tax returns, and payroll reports. Outside lab time is required.

ALLIED HEALTH EDUCATION

Associate Dean: Monica Sullivan, MS
Instructors: Adjunct Faculty

AHE 101 Introduction to Healthcare (1-0) 1 Cr. Hr.
Prerequisite: **None. AHE 101 must be taken prior to completing the first 12 credit hours of Allied Health Programs.**
This course provides a comprehensive review of the healthcare industry. Trends and changes related to healthcare facilities, such as acute care hospitals, specialty hospitals, nursing homes, health maintenance organizations, hospice, and home healthcare will be covered. The course will also deal with the impact and use of computers in the delivery and documentation of healthcare and the role of the medical professional in response to the healthcare delivery system.

ANTHROPOLOGY

Assistant Dean: Cheryl D. Hawkins, MS
Instructors: Associate Professor Josselyn Moore, MA
Adjunct Faculty

ANTH 112 Introduction to Anthropology (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is an introduction to the origin and diversity of humans. Topics covered in this course include evolution of humans and their cultures, contemporary cultural diversity, linguistics and applied anthropology. Course focuses on biological and cultural adaptation.

ANTH 117 Introduction to Archaeology (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is a general survey of Archaeology and includes an overview of the history of the field and the basic theories and methods employed in the study of archaeological cultures. Cultures from around the world are used as examples.

ANTH 201 Cultural Anthropology (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
A comparison of the ways of life for societies worldwide using anthropological theory and methods is provided in this course. 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. Course focuses on non-Western societies.

ANTH 211 Myth, Magic and World Religions (3-0) 3 Cr. Hrs.
Prerequisite: **ANTH 112 or ANTH 201 recommended.**
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.

ANTH 214 Native American Traditions (3-0) 3 Cr. Hrs.
Prerequisite: **ANTH 112 or ANTH 201 recommended.**
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.

ART AND DESIGN

Assistant Dean: Cheryl D. Hawkins, MS
Instructors: Associate Professor Sarah Olson, MA
Associate Professor James Nissen, DMA
Assistant Professor Holly Stevens, MA
Adjunct Faculty

ART 105 Basic Drawing 1 (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
Corequisite: **ART 106 recommended.**
Investigation of basic drawing materials; training in observation of and selection of significant element will be covered in this course. 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.

ART 106 Basic Design 1 (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
Corequisite: **ART 105 recommended.**
This course provides an introduction to the basic principles of design. Application of design principles to two and three-dimensional projects in various media will be covered. 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.

ART 113 Art Education (0-3) 3 Cr. Hrs.
Prerequisite: **PSYCH 201 recommended.**
This course is a study of child growth and development through creativity. Students will study techniques and materials appropriate for use at various elementary grade levels. Emphasis will be placed 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.

ART 115 Art History (4-0) 4 Cr. Hrs.
Prerequisite: **None.**
This course examines the development of western art from prehistoric times to the Renaissance with emphasis on architecture and sculpture.

ART 116 Art History (4-0) 4 Cr. Hrs.
Prerequisite: **ART 115 recommended.**
This course will study the development of Western art from the Renaissance to the present.

ART 118 Ceramics 1 (3-0) 3 Cr. Hrs.
Prerequisite: **ART 105 or equivalent.**
Fundamentals of ceramics; study of materials and basic techniques in shaping, decorating and firing will be covered in this course. 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.

ART 119 Ceramics 2 (3-0) 3 Cr. Hrs.
Prerequisite: **ART 118.**
This course is a continuation of ART 118. Emphasis on good ceramic form; work with various types of ceramic materials; advanced techniques in shaping, decorating, and firing will be covered. 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.

ART 125 Basic Drawing 2—Figure Drawing (3-0) 3 Cr. Hrs.
Prerequisite: **ART 105 or consent of instructor.**
This course is a continuation of ART 105 providing for further investigation of drawing as recording of information. Emphasis will be 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.

ART 126 Basic Design 2 (3-0) 3 Cr. Hrs.
Prerequisite: **ART 106.**
Corequisite**: ART 125 recommended.**
This course is a continuation of ART 106 providing for 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.

ART 201 Art Appreciation (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This art appreciation course deals with the basic elements underlying all art forms and with the understanding of the aesthetic and technical problems that are involved.

ART 205 Basic Drawing 3—Advanced Drawing (3-0) 3 Cr. Hrs.
Prerequisite: **ART 105 and ART 125 or consent of instructor.**
This course is a continuation of ART 105 and 125. Further investigation of materials and techniques, with in-depth study of one or two methods will be part of this course. Additional emphasis on portraiture as part of the study of directly observing and recording the human figure in relationship to its environment will be also be covered in this course. 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.

ART 211 Watercolor Painting 1 (3-0) 3 Cr. Hrs.
Prerequisite: **ART 105 and ART 106 or consent of instructor.**
Introduction to color composition as it relates to still life and landscape painting will be covered in this course. Students will practice the use of dry-brush and wet-wash techniques. Project completion and exhibition of works will take place at the 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.

ART 212 Watercolor Painting 2 (3-0) 3 Cr. Hrs.
Prerequisite: **ART 211.**
This course is a continuation of ART 211 providing for further investigation of water-based media, techniques, and processes. Studio experiences with emphasis on individual experimentation and visual imagery will be part of this course. 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.

ART 216 Women in Art (4-0) 4 Cr. Hrs.
Prerequisite: **ART 115, ART 116 and ART 201 or consent of instructor.**
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 will be explored in this course.

ART 218 Ceramics 3 (3-0) 3 Cr. Hrs.
Prerequisite: **ART 119.**
An intermediate investigation of the art making process using techniques specific to ceramics will be covered in this course. 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.

ART 219 Ceramics 4 (3-0) 3 Cr. Hrs.
Prerequisite: **ART 218.**
An intermediate investigation of the art making process using techniques specific to ceramics will be covered in this course. 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.

ART 236 Painting 1 (3-0) 3 Cr. Hrs.
Prerequisite: **Six credit hours studio work or consent of instructor.**
This course provides an introduction to painting and exploration of the painting media, techniques, and processes. Studio experiences in developing representational and conceptual visual imagery will be included in the course. 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.

ART 239 Painting 2 (3-0) 3 Cr. Hrs.
Prerequisite: **ART 236; plus six credit hours studio work or consent of instructor.**
This course is a continuation of ART 236 providing for further investigation of the painting media, techniques, and processes. Studio experiences with emphasis on individual experimentation and visual imagery will be included in the course. 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.

ART 243 Sculpture 1 (3-0) 3 Cr. Hrs.
Prerequisite: **Six credit hours studio work or consent of instructor.**
This course focuses on the 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.

ART 244 Sculpture 2 (3-0) 3 Cr. Hrs.
Prerequisite: **ART 243.**
This course is a continuation of ART 243 providing for 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.

AVIATION BUSINESS MANAGEMENT

Associate Dean: Robert F. Pearce, MPA

AVM 101 Introduction to Aviation Industry (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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.

BIOLOGY

Associate Dean: Monica Sullivan, MS
Instructors: Professor Mohammed Abbas, PhD
Professor Thomas O'Connor, PhD
Professor Michael Orick, MS
Professor Carolyn Steffen, PhD
Associate Professor Nickolas Butkevich, MS
Assistant Professor Caroline McNutt, MS
Assistant Professor Bonnita Taylor, MS
Adjunct Faculty

BIOL 050 Basic Biology (4-0) 4 Cr. Hrs.
Prerequisite: **None.**
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.

BIOL 101 General Biology (4-3) 4 Cr. Hrs.
Prerequisite: **BIOL 050 or successful completion (2.0+) of introductory high school biology within the last five years.**
This course 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. Science majors seeking to fulfill a two-semester introductory biology sequence should enroll in BIOL 120 and BIOL 130.

BIOL 103 Health Education (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course provides a study of current health problems related to selected human organ systems, diet, population, environment, fitness, cancer, disease, sexuality and substance abuse.

BIOL 104 Conservation and Natural Resources (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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.

BIOL 105 Elementary Human Anatomy and Physiology 1 (4-0) 4 Cr. Hrs.
Prerequisite: **BIOL 050 or introductory high school biology within the last five years.**
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. BIOL 105 is intended for students in allied health programs that do not require a lab course in human anatomy and physiology.

BIOL 115 Nutrition (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course provides a study of the nature and role of nutrition with emphasis on the 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.

BIOL 120 Principles of Biology 1 (4-3) 5 Cr. Hrs.
Prerequisite: **CHEM 111 recommended. Successful completion (2.0 +) of high school introductory Biology and Chemistry within last five years.**
This is a one-semester introductory course that 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. Science majors seeking to fulfill a two-semester introductory biology sequence should enroll in BIOL 120 and BIOL 130.

BIOL 130 Principles of Biology 2 (4-3) 5 Cr. Hrs.
Prerequisite: **BIOL 120 with 2.0+ grade point or department consent.**
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.

BIOL 211 Zoology (3-3) 4 Cr. Hrs.
Prerequisite: **BIOL 101.**
Anatomy, physiology, genetics, development, ecology and classification of animals will be explored in this course.

BIOL 212 Botany (3-3) 4 Cr. Hrs.
Prerequisite: **BIOL 101.**
Anatomy, physiology, genetics, development, ecology and classification of plants will be explored in this course.

BIOL 236 Human Anatomy and Physiology (4-3) 5 Cr. Hrs.
Prerequisite: **BIOL 101.**
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.

BIOL 237 Principles of Human Anatomy and Physiology 1 (3-2) 4 Cr. Hrs.
Prerequisite: **BIOL 101.**
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, 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.

BIOL 238 Principles of Human Anatomy and Physiology 2 (3-2) 4 Cr. Hrs.
Prerequisite: **BIOL 237.**
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.

BIOL 240 Anatomy and Physiology Review (2-0) 2 Cr. Hrs.
Prerequisite: **BIOL 237 and BIOL 238, or BIOL 236 or equivalent, or BIOL 105 with consent of instructor.**
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.

BIOL 243 Microbiology (3-4) 4 Cr. Hrs.
Prerequisite: **BIOL 101.**
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.

BIOMEDICAL ENGINEERING TECHNOLOGY

Associate Dean: Bruce Sweet, MA
Coordinator/Instructor: Chris Peters, AAS
Instructors: Adjunct Faculty

BMET 116 Biomedical Instrumentation Terminology and Safety 1 (2-1) 3 Cr. Hrs.
Prerequisite: **ELECT 127 or equivalent with grade of 2.0 or better.**
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.

BMET 204 Biomedical Instrumentation Terminology and Safety 2 (2-2) 4 Cr. Hrs.
Prerequisite: **ELECT 129 or equivalent with grade of 2.0 or better.**
This course is intended to provide students with a knowledge of radiology, transducers, equipment management, intensive care equipment and other fundamental principals related to Biomedical Engineering Technology.

BMET 254 Biomedical Equipment Internship 1 (0-24/40) 3 Cr. Hrs.
Prerequisite: **BMET 116, ELECT 129, approval of the BMET Coordinator, and a 2.0 GPA.**
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 to 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. A student on a BMET internship is considered a full time student with Schoolcraft College, with all rights and privileges of a full time student. (Usually 15 weeks)

BMET 255 Biomedical Equipment Internship 2 (0-24/40) 3 Cr. Hrs.
Prerequisite: **BMET 254, approval of the BMET Coordinator and a 2.0 GPA.**
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. A student on a BMET internship is considered a full time student with Schoolcraft College with all rights and privileges of a full time student. (Usually 15 weeks)

BUSINESS

Associate Dean: Bruce Sweet, MA
Instructors: Adjunct Faculty

BUS 101 Introduction to Business (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course introduces principles, problems and practices of business in areas of organization, management, information related management and e-business, labor, production, human relations, marketing, finance, insurance, regulation and government.

BUS 103 Organizing a Small Business (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course emphasizes the organization for those who are operating, starting, or seeking employment in a small business. The major topics include starting a small business, franchising, location, organizing, financing, and government regulation of a small business.

BUS 104 Operating a Small Business (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course emphasizes the operating of 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.

BUS 105 Business Mathematics (3-0) 3 Cr. Hrs.
Prerequisite: **A minimum grade of 2.0 in MATH 045 or equivalent.**
This course offers a review of fundamentals of arithmetic along with coverage of percentage, simple and compound interest, taxes, insurance, bonds, applications to business practice.

BUS 120 Principles of Salesmanship (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course explores fundamentals of sales and includes sales preparation and demonstration. Among the topics covered are those related to prospecting, customer motivation and sales techniques such as handling objections and closing the sale.

BUS 122 Advertising (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course provides the student with a general knowledge of the various facets of advertising, media selection, psychological buying motives, and advertising strategies. In addition, the student should gain an appreciation of the various talents needed to bring about a good advertising message.

BUS 161 Retail Principles and Practices (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course introduces basic elements of retail organization and operation. Problem situations related to retailing are identified along with specific applications of retail procedures.

BUS 162 Retailing Merchandising (3-0) 3 Cr. Hrs.
Prerequisite: **BUS 105.**
This course focuses on merchandising functions, fundamental activities involved in retailing, buying procedures, inventory control, and pricing.

BUS 201 Business Statistics (3-0) 3 Cr. Hrs.
Prerequisite: **MATH 113.**
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.

BUS 204 Personal Finance (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
Personal Finance offers a practical study of problems and solutions facing the consumer in today's society. Areas that are covered include budgeting, banking, credit, and income taxes. The selection of insurances, choice of housing, large item purchasing (such as automobiles) and occupational choices are also reviewed. Laws and regulations for consumer protection and where to get relief for personal buying problems are a part of course coverage.

BUS 205 Personal Investing (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
Investment goals will be determined and will 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.

BUS 207 Business Law (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
Principles of law are introduced as applied to the legal environment of business, contracts, sales and consumer rights, bankruptcy and secured transactions–debtor/creditor rights.

BUS 208 Business Law (3-0) 3 Cr. Hrs.
Prerequisite: **Business 207 recommended.**
This course is a continuation of BUS 207 with emphasis on negotiable instruments, real and personal property, agency, partnerships, corporations, employment, and wills and estates.

BUS 217 Business Management (3-0) 3 Cr. Hrs.
Prerequisite: **BUS 101 or consent of department.**
This course centers on the basic functions of the management process which are decision making, organizing, staffing, planning, controlling, communicating, and directing.

BUS 220 Supervision (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This is 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.

BUS 226 Principles of Marketing (3-0) 3 Cr. Hrs.
Prerequisite: **BUS 101 or consent of department.**
This course is designed to present 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.

BUS 230 Human Resource Management (3-0) 3 Cr. Hrs.
Prerequisite: **BUS 101 or consent of department.**
This course emphasizes the management of procurement, development, compensation, integration, maintenance, and separation of human resources to accomplish individual, organizational, and social objectives.

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.
Prerequisite: **MATH 053 or equivalent.**
This is an elementary course in chemistry for students who have not had high school chemistry or who wish to review basic chemical concepts. This 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.

CHEM 100 Introduction to the Chemistry of Food for Culinary Arts (3-2) 4 Cr. Hrs.
Prerequisite: **CAP 103.**
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.

CHEM 111 General Chemistry (4-3) 4 Cr. Hrs.
Prerequisite: **CHEM 051 or equivalent with grade of 2.0 and MATH 113 or equivalent. MATH may be concurrent.**
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.

CHEM 117 General Chemistry and Qualitative Analysis (4-4) 5 Cr. Hrs.
Prerequisite: **CHEM 111 with grade of 2.0 or better or consent of department.**
This course is the second course in a traditional one-year general college chemistry program and 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.

CHEM 120 Organic and Biochemistry (3-3) 4 Cr. Hrs.
Prerequisite: **CHEM 111.**
This course is an introduction to both organic chemistry and biochemistry. Major topics covered include structures, functions, and reactions of organic and biological compounds; the chemistry of metabolic processes; enzymatic processes; and related topics. The laboratory portion of the course includes exercises in organic and biochemistry designed to reinforce lecture topics.

CHEM 213 Organic Chemistry (4-4) 5 Cr. Hrs.
Prerequisite: **CHEM 117 with grade of 2.0 or better or consent of department.**
This is an 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.

CHEM 214 Organic Chemistry (4-4) 5 Cr. Hrs.
Prerequisite: **CHEM 213 with grade of 2.0 or better or consent of the instructor.**
This course is a continuation of CHEM 213 with emphasis on mechanisms of organic reactions and interpretation of spectra. Lab work will emphasize preparation of organic compounds through multi-step synthesis.

CHILD CARE AND FAMILY SERVICES

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.
Prerequisite: **None.**
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.

CCD 101 Preschool Child Care (3-0) 3 Cr. Hrs.
Prerequisite: **CCD 116 or consent of department.**
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 handling techniques. Observational skills will be sharpened, with concentration on signals alerting students to the children's levels of functioning.

CCD 102 Foundations of Early Childhood Education (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
Students will be provided a general overview of Early Childhood Education. This review includes an introduction to early childhood education, theories of child development, information on key organizations, relevant laws and regulations, discussion on opportunities within this field, the NAWEYC code of ethical conduct, core competencies for the field and developmentally appropriate practices. Students will spend time observing a variety of early childhood programs.

CCD 105 Introduction to Developmental Disabilities (3-0) 3 Cr. Hrs.
Prerequisite: **CCD 116 or consent of department.**
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.

CCD 113 Special Educational Programs and Supported Living (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
Students will 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. In addition, the course will cover current laws and regulations regarding licensing, equipping and maintaining the physical plant, staffing, food services, health and social services, budgeting and program development.

CCD 115 School Age Child Care (3-0) 3 Cr. Hrs.
Prerequisite: **CCD 116 or consent of department.**
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.

CCD 116 Child Development (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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.

CCD 118 Infant and Toddler Care (3-0) 3 Cr. Hrs.
Prerequisite: **CCD 116 or consent of department.**
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.

CCD 121 The Adolescent (3-0) 3 Cr. Hrs.
Prerequisite: **CCD 116 or consent of department.**
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.

CCD 126 Creative Activities (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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.

CCD 130 Learning Disabilities (3-0) 3 Cr. Hrs.
Prerequisite: **CCD 216 or consent of department.**
This course is designed to acquaint the student with the perceptual and learning issues of learning disabled children and special education programs in the public school which provide specialized learning situations for them. The diagnosis of disorders of visual and auditory perception, language, motor coordination, cognition, and attention deficit related to the learning processes are discussed, as well as specific recommendations for remediation and implications for school planning.

CCD 140 Emotional Impairment (3-0) 3 Cr. Hrs.
Prerequisite: **CCD 216 or consent of department.**
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.

CCD 150 Child Care Practicum 1 (3-0) 3 Cr. Hrs.
Prerequisite: **CCD 116 or consent of department.**
Students will have supervised experience working directly with children and youth in settings such as child development centers and group homes. They will have the opportunity to integrate classroom material and personal life experiences with on-the-job experience and evaluate the experiences of children in light of the concepts they have learned. Emphasis on observing and reporting activities of the children.

CCD 155 CDA Assessment Preparation (1-0) 1 Cr. Hr.
Prerequisite: **CCD 100, CCD 101, CCD 116, CCD 118, CCD 126, CCD 150, CCD 170, and CCD 214.**
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. This class provides the support the CDA candidate needs to prepare the following: A. Professional Resource File (Autobiography, six statements of competence, and resource collection-including 17 specific items B. Prepare, distribute and collect Parent Opinion Questionnaires C. Collect the Formal Observation Booklet from the field Advisor D. Become familiar with the process of and prepare for the actual CDA Council Representative's Verification Visit.) The verification visit is scheduled by the Council for Early Childhood Professional Recognition after the candidate has completed all requirements and sent in the application and fee ($325). The visit is conducted by an official CDA council representative. During the visit, the candidate presents all documentation (listed above), takes a written 60 question test (the Early Childhood Studies Review) and participates in a two hour oral interview.

CCD 170 Behavior Management (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is designed to familiarize the student with the behavior management options available for use with children and special populations. A survey of behavior shaping techniques will be made, including a study of the classical behavior modification model and an introduction to data collection.

CCD 180 Introduction to Family Support (3-0) 3 Cr. Hrs.
Prerequisite: **CCD 100.**
The fields of early childhood education and family support have become more interconnected as children bring family problems into the variety of centers, non-profit 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.

CCD 185 Empowering Families (3-0) 3 Cr. Hrs.
Prerequisite: **CCD 180.**
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.

CCD 200 Child Care Practicum 2 (3-0) 3 Cr. Hrs.
Prerequisite: **CCD 101 and CCD 150 for Child Care and Development students. CCD 150 and CCD 215 for Child Care-Special Needs and Paraprofessional students.**
This course provides continued supervised experience working directly with children and youth in child development settings. Students will have increased responsibility planning and implementing activities for children. Emphasis will be placed on working as a contributing member of teaching team.

CCD 202 Family Support Field Practicum (1-10) 3 Cr. Hrs.
Prerequisite: **CCD 180 and CCD 185.**
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. Students will spend 150 hours at an approved family support placement site.

CCD 211 Children and Youth in Groups (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is designed to introduce students to the principles of group functioning and techniques of helping children become accepted members of peer groups.

CCD 214 Operation and Maintenance of a Child Care Facility (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This 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.

CCD 215 Methods and Curricula for Persons with Developmental Disabilities (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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 the developmentally disabled is included.

CCD 216 The Child with Special Needs (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is designed to introduce students to children, youth and adults who have special needs. Included are individuals who are cognitively impaired, emotionally impaired, visual and/or hearing impaired, learning disabled, and those who experience orthopedic or other health disabilities/handicaps.

CCD 221 Early Literacy and Numerical Thinking (3-0) 3 Cr. Hrs.
Prerequisite: **CCD 101.**
This course explores literacy and numerical thinking in early childhood. An emphasis will be placed on constructivist and sociolinguistic views of learning. Experiential exercises and reading will provide students with opportunities to plan developmentally appropriate learning activities, to record observations of children, and to generate developmental analyses that support literacy and numerical thinking development.

COLLEGIATE SKILLS

Associate Dean: Deborah B. Daiek, PhD
Instructors: Adjunct Faculty

COLLS 050 Learning Power (4-0) 4 Cr. Hrs.
Prerequisite: **None.**
This course focuses on developing vocabulary and comprehension skills in group and lab settings. Students will explore and develop reading strategies to improve efficiency.

COLLS 053 Critical Thinking Applications (4-0) 4 Cr. Hrs.
Prerequisite: **COLLS 050 or appropriate reading placement score.**
This course is designed to prepare students 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.

COLLS 055 College Notetaking (1-0) 1 Cr. Hr.
Prerequisite: **None.**
Corequisite: **Recommended enrollment in another class requiring notetaking.**
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.

COLLS 101 College Success (3-0) 3 Cr. Hrs.
Prerequisite: **COLLS 053 or equivalent skill level.**
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 covered in the 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.

COLLS 105 Learning Skills 1(1-0) 1 Cr. Hr.
Prerequisite: **Consent of department.**
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.

COLLS 109 Learning Skills —Education Majors (1-0) 3 Cr. Hrs.
Prerequisite: **COLLS 053 or equivalent, MATH 053 or equivalent and 27 or more transfer credits above 100-level.**
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.

COLLS 110 Learning Skills LD (2-0) 2 Cr. Hrs.
Prerequisite: **None.**
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.

COLLS 111 Electronic Portfolio (1-0) 1 Cr. Hr.
Prerequisite: **None.**
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.

COLLS 130 Applied Learning Theory for Nursing Majors (3-0) 3 Cr. Hrs.
Prerequisite: **COLLS 050 or college level reading placement score and BIOL 050.**
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 in the course are reading speed/comprehension, reading study system, lecture note taking, time/goal management, test preparing/test taking, and communications skills.

COLLS 211 Electronic Portfolio Exit Course (1-0) 1 Cr. Hr.
Prerequisite: **COLLS 111.**
This course concludes the process of building the Schoolcraft College Electronic Portfolio begun in COLLS 111. Students will review their college learning experience as well as collect, organize, and reflect upon evidence that they have developed attitudes, skills, knowledge, and abilities associated with a generally educated person during that experience. Students will create personal program-level portfolios following the college's specified guidelines that demonstrate their academic achievements and showcase what they have to offer as Schoolcraft College graduates. The college may select a sample of the portfolios produced for assessment of the general education Core Skills program.

COMMUNICATION ARTS

Assistant Dean: Cheryl D. Hawkins, MS
Instructors: Professor JuJuan C. Taylor, PhD
Adjunct Faculty

COMA 103 Fundamentals of Speech (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course develops essential skills through directed practice in a variety of speech situations and furnishes basic knowledge necessary for intelligent speech improvement; stress on speaker's ideas, attitudes, and audience adjustment.

COMA 200 Interpersonal Communications (3-0) 3 Cr. Hrs.
Prerequisite: **COMA 103 or consent of instructor.**
This course provides 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 nonverbal communication. Special attention will be given to improving interpersonal communication skills. This course may not be substituted for COMA 103.

COMA 201 Discussion (3-0) 3 Cr. Hrs.
Prerequisite: **COMA 103 or equivalent.**
This course conveys a better understanding of human affairs. The student will review attitudes and skills for effective participating in discussion; including cooperative thinking, exchange of ideas, and problem solving.

COMA 203 Contemporary Public Address (3-0) 3 Cr. Hrs.
Prerequisite: **COMA 103.**
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.

COMA 205 Argumentation and Persuasion (3-0) 3 Cr. Hrs.
Prerequisite: **COMA 103.**
This course is a journey into the theories and practices of argumentation and persuasion from the classical to the contemporary period. Understanding of structure and the use of logic and evidence when presenting in a persuasive situation will be explored.

COMA 210 Communication For Leaders (3-0) 3 Cr. Hrs.
Prerequisite: **COMA 103.**
This course is an exploratory examination of the leadership role within today's professional arena. The course is designed as an overview to develop communication awareness and effectiveness in teams of leaders within the community, corporate interviews, small group discussions and problem-solving in staff meetings and presentations as well as an examination of communication barriers.

COMA 230 Introduction to Mass Communication (3-0) 3 Cr. Hrs.
Prerequisite: **COMA 103.**
Understanding media in today's world is more than a scholarly exercise; it is a necessary survival skill in a world that has been utterly changed by mass communication. All students, whether they will be practitioners, critics, or consumers, have to be able to analyze the ways in which mass media is being used to change the world. This course provides the tools needed to accomplish this analysis.

COMPUTER AIDED DESIGN

Associate Dean: Bruce Sweet, MA
Instructors: Professor Catherine Ferman, MS, PE
Assistant Professor Lisa Zaccone, MS
Adjunct Faculty

CAD 101 Introduction to Computer Aided Drafting (2-2) 3 Cr. Hrs.
Prerequisite: **Drafting experience and consent of department.**
This course is designed for the experienced drafter who wants to obtain some CAD skills. Topics to be covered will 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.

CAD 102 Advanced Topics in CAD (2-2) 3 Cr. Hrs.
Prerequisite: **CAD 101 or equivalent course. Industry experience will be considered.**
This course is designed as an advanced course in computer aided drafting for the non-degree seeking design professional such as 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 apply towards a degree in Computer Aided Design.

CAD 103 Engineering Graphics (2-2) 3 Cr. Hrs.
Prerequisite: **None.**
This course is designed to introduce the student to the basic concepts and standard practices necessary for the graphical communication of technical data which includes 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.

CAD 105 Mechanical Engineering Drawing (3-2) 4 Cr. Hrs.
Prerequisite: **CAD 103 or equivalent.**
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, 3D 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.

CAD 107 Detailing (2-4) 4 Cr. Hrs.
Prerequisite: **CAD 105 or equivalent.**
This course is designed to teach the student the 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 stack-up evaluation, G.D. and T. methods, 3D modeling, 2D and data extraction from 3D models.

CAD 201 I-DEAS Level 1 (4-0) 4 Cr. Hrs.
Prerequisite: **None.**
This course will introduce students to the modeling and drafting packages in SDRC's IDEAS software. Topics will include the user interface, data management, master modeler, solid model creation, geometrical constraints and relations, assembly modeling, and system hierarchy.

CAD 202 I-DEAS Level 2 (1-1) 2 Cr. Hrs.
Prerequisite: **CAD 201 or equivalent.**
This course is designed to present higher level part modeling and file management commands for SDRC's I-DEAS Master Modeler.

CAD 204 I-DEAS Generative Machining (1-1) 2 Cr. Hrs.
Prerequisite: **CAD 201 or equivalent.**
This course presents the CAM portion of the I-DEAS software. Topics to be covered will 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 will be simulated and errors corrected. CL files will be created and the machine code will be post processed for specific machines.

CAD 209 I-DEAS Graphical Finite Element Modeling (1-1) 2 Cr. Hrs.
Prerequisite: **CAD 201 or equivalent.**
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.

CAD 211 CATIA Level 1 (4-0) 4 Cr. Hrs.
Prerequisite: **None.**
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.

CAD 212 CATIA Surfacing (2-2) 4 Cr. Hrs.
Prerequisite: **CAD 211 or equivalent.**
This course is designed to present higher level part modeling commands for CATIA Modeler. Particular attention will be paid to surfacing.

CAD 213 Knowledgeware (1-1) 2 Cr. Hrs.
Prerequisite: **CAD 211 or equivalent.**
This course is designed to introduce the student to the capabilities of CATIA Knowledgeware. CATIA Knowledgeware allows the capture and integration of corporate design knowledge within CATIA parametric models.

COMPUTER ASSISTED MANUFACTURING

Associate Dean: Bruce Sweet, MA
Instructors: Professor James Kramer, MS
Adjunct Faculty

CAM 102 Introduction to Computer Numerical Control (2-2) 3 Cr. Hrs.
Prerequisite: **Windows experience highly recommended.**
Corequisite: **MFG 102 and/or previous machining experience.**
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.

CAM 103 CAD/CAM Computer Numerical Control Programming (2-2) 3 Cr. Hrs.
Prerequisite: **CAM 102 or basic knowledge of MasterCAM.**
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, tool paths will be verified by using a graphical (animation) solid-model tool path verification to detect potential machining errors. The students will also study drilling, solid modeling, pocketing, and circle boring.

CAM 201 Coding and Materials Processing (0-5) 5 Cr. Hrs.
Prerequisite: **CAM 102 or equivalent.**
This course prepares the student to write and download a set of codes to program the numerical instructions that direct a CNC machine's operation. Students will be provided a background in manufacturing process, machine technology, print reading, and the use of precision measurement instruments. The student will learn how to use an operator's panel control for editing, writing, uploading, downloading, and simulating programs, offsetting tools, and programming integration.

CAM 205 Computer Aided Machining (0-4) 3 Cr. Hrs.
Prerequisite: **CAM 103 or extensive knowledge in 2D MasterCAM Design.**
The student will use CNC MasterCAM software program that covers mills and lathes. The course will address the following machining variables: machining parameters, constructing wire frame models, generating surface models with tool paths, engraving artworks and solid modeling. Operational parameters will be calculated to determine operating capacity of a cutting tool, spindle horsepower, the affects of different types of work piece material, and rigidity of the part and respective fixture. The student will learn how to generate coding for 3D wire frame and multi-axis composite surfaces using various modeling techniques.

COMPUTER GRAPHICS TECHNOLOGY

Assistant Dean: Cheryl D. Hawkins, MS
Instructors: Professor Stephen Wroble, MA
Associate Professor Colleen Case, MLS
Associate Professor Michael Mehall, MA
Instructor Dennis Summers, MFA
Adjunct Faculty

CGT 109 Design Concepts and Technology (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
In order to succeed in any discipline within the Computer Graphics field students must have a strong sense of design; an understanding of how meaning is communicated through form and color; the nature of human perception; and the strengths and limitations of the digital media we use. This course is a prerequisite for all classes within the CGT curriculum. In this course students will use software at an introductory level in order to develop their understanding of these conceptual issues. Applications are digital and vector-based illustration, page-layout, animation and non-linear based. Projects will be designed to allow students to do both short exercises and more complex larger works.

CGT 110 Illustration—FreeHand (2-0) 2 Cr. Hrs.
Prerequisite: **Computer experience highly recommended.**
This course is designed to introduce students to the field of graphic design and illustration using one of the illustration 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, and working with type through a series of realistic graphic design projects. Students are expected to have some computer experience and be familiar with basic functions of the computer before beginning the class.

CGT 113 Publishing—QuarkXPress (2-0) 2 Cr. Hrs.
Prerequisite: **Computer experience highly recommended.**
This course is intended to introduce students to the field of publishing design using professional page-layout software. 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 have some computer experience and be familiar with basic functions of the computer before beginning the class.

CGT 123 Illustration—Illustrator (3-0) 3 Cr. Hrs.
Prerequisite: **Computer experience highly recommended.**
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.

CGT 125 Digital Imaging 1—Photoshop (3-0) 3 Cr. Hrs.
Prerequisite: **Computer experience highly recommended.**
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.

CGT 127 Publishing—InDesign (3-0) 3 Cr. Hrs.
Prerequisite: **Computer experience highly recommended.**
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.

CGT 135 Web Graphics (3-0) 3 Cr. Hrs.
Prerequisite: **CGT 125.**
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. In addition, skills in design, optimization compression techniques, color theory and an understanding of multiple platform, operating systems and browser limitations are covered.

CGT 141 Introduction to Interactive Media and Game Design (3-0) 3 Cr. Hrs.
Prerequisite: **CGT 125.**
This course is designed to provide an introduction to interactive media production. Emphasis will be on solving the special design and production problems encountered when creating non-linear projects, along with animation techniques, basic scripting, memory management, importing/exporting considerations, basic sound and video, project management, and production planning.

CGT 150 Typography (2-0) 2 Cr. Hrs.
Prerequisite: **CGT 123.**
This course introduces the graphic design student to the principles of typography by investigating letterforms 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.

CGT 151 Survey of Design (2-0) 2 Cr. Hrs.
Prerequisite: **None.**
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.

CGT 152 DHTML—Screen Design for Electronic Media (2-0) 2 Cr. Hrs.
Prerequisite: **Computer experience highly recommended.**
This course introduces the student to the unique design principles for electronic screen design. Designing for the WWW or for an interactive computer screen or CD Rom requires a new look at design principles. This course compares traditional paper design to electronic screen design.

CGT 153 Portfolio Preparation (2-0) 2 Cr. Hrs.
Prerequisite: **Must take one of the following courses either before or with this course: CGT 231 or CGT 236 or CGT 242 or CGT 246 recommended.**
This 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 student's 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.

CGT 154 Sound Editing for Graphic Artists (2-0) 2 Cr. Hrs.
Prerequisite: **None.**
This course provides an introduction to the basic concepts of sound production for computer and video based delivery systems. Also emphasized are the necessary hardware/software, sound recording and editing, file management and transfer, and aesthetic considerations.

CGT 155 Storyboarding (2-0) 2 Cr. Hrs.
Prerequisite: **Computer experience highly recommended.**
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.

CGT 156 Photography (2-0) 2 Cr. Hrs.
Prerequisite: **None.**
This course is designed to instruct the student on photographic principles that affect exposure, image structure, composition, printing and the interface with digital media. Students 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 design career. The student will be required to have a 35mm camera and is responsible for film and processing costs or digital equivalent.

CGT 157 Prepress (2-0) 2 Cr. Hrs.
Prerequisite: **CGT 123, CGT 125 and CGT 127.**
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.

CGT 206 Scripting for Interactive Media and Game Design (3-0) 3 Cr. Hrs.
Prerequisite: **CGT 141.**
This course provides intermediate instruction in Interactive media production with emphasis on the techniques required in creating interactivity. Emphasis will be on scripting languages, including scripting to control navigation, animation, sound, video, and memory management.

CGT 208 Premiere (3-0) 3 Cr. Hrs.
Prerequisite: **CGT 123, CGT 125 and CGT 155.**
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.

CGT 211 Flash (3-0) 3 Cr. Hrs.
Prerequisite: **CGT 110 or CGT 123 or experience with a vector-art drawing program.**
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.

CGT 212 Flash Action Scripting (3-0) 3 Cr. Hrs.
Prerequisite: **CGT 141 or equivalent experience with Flash.**
This course provides an in-depth 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.

CGT 215 Motion Graphics 1 (3-0) 3 Cr. Hrs.
Prerequisite: CGT 109, CGT 123, CGT 125, CGT 155 and CGT 208.
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.

CGT 226 Digital Imaging 2 —Photoshop (3-0) 3 Cr. Hrs.
Prerequisite: **CGT 109, CGT 123, CGT 125 and CGT 127.**
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.

CGT 231 Electronic Publishing (3-0) 3 Cr. Hrs.
Prerequisite: **CGT 109, CGT 113, CGT 123, CGT 125 and CGT 127.**
Corequisite: **CGT 226.**
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.

CGT 236 Web Design (3-0) 3 Cr. Hrs.
Prerequisite: **CGT 135 and CGT 152.**
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), Style Sheets, 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 other current HTML software authoring/editor will be used. The student will look at on-line design considerations, such as download times, optimizing file size and file formats.

CGT 237 Dynamic Web Design with ColdFusion (3-0) 3 Cr. Hrs.
Prerequisite: **CGT 236.**
This course provides advanced dynamic Web design and development utilizing the most recent versions of Macromedia's ColdFusion and Dreamweaver. Topics covered will include scripting in CFML and HTML, Web site planning, testing, security and production. Emphasis will be on managing the flow of database information with client-side documents. Also included will be coverage of data-driven pages, forms and data-entry using Dreamweaver data connection tools, writing user-defined functions and creating dynamically data driven Web sites.

CGT 242 Advanced Interactive Media and Game Design (3-0) 3 Cr. Hrs.
Prerequisite: **CGT 206 or CGT 212.**
This course provides advanced instruction in interactive media production. The course emphasizes the production process, the multidisciplinary nature of multimedia, integration of components, and design of non-linear projects. The student is instructed in advanced elements of design, digital sound and music, integrating digital video, and scripting. Each student will produce a large scale multimedia project during the course.

CGT 244 History of Animation (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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. Students will be exposed to the historical contingencies that lead to different developments as well as 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.

CGT 246 Motion Graphics 2 (3-0) 3 Cr. Hrs.
Prerequisite: **CGT 109, CGT 123, CGT 125, CGT 127, CGT 208 and CGT 215.**
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 interrelate 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.

CGT 247 3D Animation—Introduction (3-0) 3 Cr. Hrs.
Prerequisite: **CGT 123, CGT 125 and CGT 155.**
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.

CGT 248 3D Animation—Model Building (3-0) 3 Cr. Hrs.
Prerequisite: **CGT 247.**
Corequisite: **CGT 249 and CGT 252.**
This class follows up on the skill sets that students were exposed to in Introduction to 3D Animation. 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.

CGT 249 3D Animation—Texture and Lighting (3-0) 3 Cr. Hrs.
Prerequisite: **CGT 247.**
Corequisite: **CGT 248 and CGT 252.**
This class follows up on the skill sets that students were exposed to in Introduction to 3D Animation. In this class students will gain a much deeper understanding of the aesthetics and software technology of texture mapping and lighting. Students will learn about the aesthetics of good composition in general as well as more about the technology and limitations of television as a delivery platform.

CGT 250 Practical Application (3-0) 3 Cr. Hrs.
Prerequisite: **Must take one of the following courses either before or with this course: CGT 231, CGT 236, CGT 242, CGT 246 or CGT 252.**
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.

CGT 252 3D Animation—Animating (3-0) 3 Cr. Hrs.
Prerequisite: **CGT 247.**
Corequisite: **CGT 248 and CGT 249.**
This class follows up on the skill sets that students were exposed to in Introduction to 3D Animation. In this class students will improve their understanding of the aesthetics and software technology involved in creating effective and convincing animation.

CGT 253 3D Compositing (3-0) 3 Cr. Hrs.
Prerequisite: **CGT 248, CGT 249 and CGT 252.**
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.

CGT 256 Portfolio 3D—Reel Development (3-0) 3 Cr. Hrs.
Prerequisite: **CGT 253.**
In this course students will pull together the complete 3D Modeling skill sets in order to create self-directed projects for a demo reel or Web site.

CGT 270 Internship (3-0) 3 Cr. Hrs.
Prerequisite: **CGT 250 and consent of the department.**
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 or Media Developer with an approved business or company. CGT Internships will be administrated by a full-time faculty member from the CGT Department. The instructor and the business partner will jointly evaluate the student.

CGT 298 Honors Studies (3-0) 3 Cr. Hrs.
Prerequisite: **Completed (12) twelve hours of course work, Dean's List status (GPA 3.5) and consent of instructor.**
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. This course will not be listed in the Schedule of Classes. To enroll in this course, a candidate must submit a Project Plan to an instructor. The instructor will review the plan with the candidate and may recommend changes. When the project is approved, a course section will be created and the student will be given permission to enroll.

COMPUTER INFORMATION SYSTEMS

Associate Dean: Bruce Sweet, MA
Instructors: Professor Doris McPherson, EdD
Professor David W. Ruokolainen, MS
Professor William Schlick, BEE
Professor Jerry Wale, MSEE
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.
Prerequisite: **None.**
This course is designed for students who have had little or no experience with computers. Topics covered in this course 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.

CIS 115 Introduction to Computer Based Systems (3-0) 3 Cr. Hrs.
Prerequisite: **Computer and Keyboarding experience highly recommended.**
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 and peripherals; basic office applications of word processing, spreadsheets and database; computer graphics, digital media and multimedia; networking and telecommunication; the Internet; computer security and risks; computers at work, school, home; information systems in business; systems design and development; electronic commerce; and artificial intelligence. Approximately one-third of the class time is spent as a hands-on course using personal computers to create web pages using HTML/XHTML and the Microsoft Windows Operating System.

CIS 120 Software Applications (3-0) 3 Cr. Hrs.
Prerequisite: **Computer and keyboarding experience highly recommended.**
This course is designed to provide practical, hands-on experience with knowledge for evaluation of popular software packages for the computer. 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.

CIS 122 Microsoft Outlook (2-0) 2 Cr. Hrs.
Prerequisite: **CIS 120 or equivalent.**
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 e-mail, as well as to manage messages, appointments, contacts, and tasks.

CIS 123 Introduction to E-Commerce (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is designed to familiarize individuals with current and emerging electronic commerce technologies using the Internet. Topics covered in the course 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.

CIS 125 Principles of Information Security (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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. In addition, the course also covers both the managerial and the technical aspects of this exciting discipline and addresses knowledge areas of CISSP (Certified Information Systems Security Professional) certification.

CIS 129 Introduction to Programming Logic (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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.

CIS 170 Microsoft Windows (3-0) 3 Cr. Hrs.
Prerequisite: **Computer experience highly recommended.**
This course is designed to explore the features of the latest Windows desktop operating system which include 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 computers and have proficiency in keyboard and mouse usage.

CIS 171 Introduction to Networking (3-0) 3 Cr. Hrs.
Prerequisite: **Computer experience highly recommended.**
This course introduces students to the key concepts of data communications, telecommunications and networking. The course 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.

CIS 172 Network Security Fundamentals (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 171 or equivalent experience.**
This course is designed to provide students a fundamental understanding of network security principles and implementation. A variety of hands-on and case project assignments will reinforce the technologies used and principles involved in creating a secure computer network environment.

CIS 173 Wireless Local Area Networks (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 171 or equivalent experience.**
This course is designed to provide students a fundamental understanding of wireless Local Area Networks. A variety of hands-on assignments will reinforce the technologies used and principles involved in installing, configuring and managing a wireless LAN.

CIS 175 Visual Basic (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 129 and Windows experience.**
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.

CIS 176 Visual Basic.NET (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 129 and Windows experience.**
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.

CIS 177 Visual Basic for Applications (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 129.**
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.

CIS 178 Technical Microsoft Windows (3-0) 3 Cr. Hrs.
Prerequisite: **Computer experience highly recommended.**
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 computers and have proficiency in keyboard and mouse usage.

CIS 180 Spreadsheet Applications—Current Software (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 120.**
This course teaches students how to analyze comprehensive problems and design a 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.

CIS 185 Introduction to HTML (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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 covered 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.

CIS 211 Introduction to C++ (2-0) 2 Cr. Hrs.
Prerequisite: **CIS 129 or equivalent.**
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.

CIS 212 Introduction to CGI using Perl (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 129 or equivalent.**
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.

CIS 215 Advanced Software Applications (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 120 or written approval of the CIS department; CIS 180 recommended.**
This course is designed for students who have a working knowledge of the computer and word processing, spreadsheet, and database packages. Advanced features of the software are developed building on a foundation of a beginning software applications course.

CIS 221 Advanced C++ (2-0) 2 Cr. Hrs.
Prerequisite: **CIS 211.**
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.

CIS 223 Introduction to C# (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 129 or equivalent.**
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.

CIS 225 Database Management Systems (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course covers a popular relational database, Microsoft Access, 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.

CIS 226 Advanced Database Using PL/SQL with Oracle (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 225 or equivalent.**
This course covers the creation of Oracle databases using PL/SQL programming language. Students will also receive instruction on the use of Oracle's procedure builder, form builder, report builder, and graphics builder.

CIS 227 Introduction to Structured Query Language (SQL) (1-0) 1 Cr. Hr.
Prerequisite: **CIS 225 or equivalent.**
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. Microsoft Access will be used as the primary vehicle to present SQL commands.

CIS 233 Active Server Pages (3-0) 3 Cr. Hrs.
Prerequisite: **CGT 152 or a basic knowledge of HTML or equivalent programming experience.**
Students will be instructed in how to 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.

CIS 235 Managing and Troubleshooting PCs (3-0) 3 Cr. Hrs.
Prerequisite: **Windows experience highly recommended.**
Advanced operating systems features including custom batch files, backup and disk organization will be covered. Computer peripherals and upgrade features will also be emphasized. The student will examine the inside of the computer and practice adding upgrades, configuring systems, using diagnostic maintenance programs and installing software packages.

CIS 238 JavaScript (3-0) 3 Cr. Hrs.
Prerequisite: **CGT 152 or a basic knowledge of HTML.**
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. This course covers JavaScript as a client-side scripting language.

CIS 250 Systems Development and Design (4-0) 4 Cr. Hrs.
Prerequisite: **Microsoft Office experience highly recommended.**
The student will be 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 the 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.

CIS 251 IT Project Management (3-0) 3 Cr. Hrs.
Prerequisite: **Basic knowledge and/or experience in the field of IT.**
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.

CIS 255 Introduction to LINUX (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 170 or equivalent experience.**
This course is designed for students pursuing careers in computer information systems or who are 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.

CIS 256 Introduction to XML (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 129 and a course in HTML or Java or equivalent.**
This course will provide the student with an introduction to XML programming. The student will become familiar with Cascading Style Sheets, Document Type Definitions, Schemas, and Document Object Models.

CIS 260 Introduction to UNIX (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is designed for students pursuing careers in computer information systems or who 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 philosophy, basic UNIX commands and terminology, UNIX utilities, and an introduction to shell programming.

CIS 265 Networking 1 (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 235.**
This course is designed to introduce the student to communications terminology and technology using telecommunications and a local area network. The student will practice installing and maintaining a LAN.

CIS 267 Home Technology integration (4-0) 4 Cr. Hrs.
Prerequisite: **None.**
This course is designed to introduce the student to networking technologies, audio visual systems, automation methods, and telecommunications techniques that converge in integrated home technology. The student will practice installing and maintaining a Home Networking System.

CIS 271 Local Area Networks (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 171 or equivalent experience.**
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.

CIS 272 Wide Area Networks (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 171 or equivalent experience.**
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.

CIS 273 TCP/IP and Network Architectures (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 171 or equivalent experience.**
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.

CIS 275 Advanced Visual Basic (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 175 or equivalent.**
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.

CIS 276 Networking 2 (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 265.**
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 Server on a local area network will be covered. Additional topics on hardware, clients, domains, user accounts and printers will be covered.

CIS 277 Network Infrastructure (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 273 or equivalent experience.**
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.

CIS 278 Network Environment (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 273 or equivalent experience.**
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.

CIS 281 Data Structures and Introduction to Windows Programming (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 211 and CIS 221 or equivalent.**
This course is designed for students pursuing careers in computer information systems or who are currently working in industry. This is an advanced course in programming using C++. Students will examine the use of abstract data structures in programming. The course is also an introduction to Windows programming.

CIS 283 Introduction to Internet Technologies (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 171 or equivalent experience.**
This 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.

CIS 284 Internetworking Devices (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 273 or equivalent experience.**
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.

CIS 285 Process and Protocols (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 273 or equivalent experience.**
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.

CIS 286 Network Analysis and Design (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 273 or equivalent experience.**
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.

CIS 290 Object-Oriented Programming with Java (3-0) 3 Cr. Hrs.
Prerequisite: **CIS 129 or equivalent.**
This course provides an introduction to object-oriented programming using Java. Students will develop real world application programs and Web-based applets based on object-oriented programming concepts including encapsulation, inheritance, and polymorphism.

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.
Prerequisite: **None.**
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 computer. 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 computer 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 computer. The student will gain experience using computers and develop proficiency in keyboard and mouse usage.

COMPS 126 Technical Programming (3-0) 3 Cr. Hrs.
Prerequisite: **Computer and keyboarding experience highly recommended.**
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.

COMPS 147 Computer and Peripheral Maintenance and Management (2-2) 4 Cr. Hrs.
Prerequisite: **COMPS 126 and ELECT 127.**
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.

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.
Prerequisite: **None.**
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.

CRIMINAL JUSTICE

Associate Dean: Robert F. Pearce, MPA
Instructors: Adjunct Faculty

CJ 102 Organization and Administration Of Law Enforcement Agencies (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is a practical study of management, operations, communication, budgeting, recruiting, training and public relations in law enforcement.

CJ 104 Introduction to Security (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course provides the student with an understanding of the private side of law enforcement. Included in this process are studies in career opportunities, the history of both private and public law enforcement and the interrelationship and liabilities of both sectors.

CJ 107 Police Field Operations (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is a practical study of purposes, methods, types and means of law enforcement patrol, accident prevention and effective traffic control interviewing techniques. Students will learn about crimes in progress, stress survival, and use of force. Training will be received on proper methods of conducting preliminary investigations, unlawful assembly, and riot control.

CJ 113 Introduction to Criminal Justice System (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This 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 attorneys, prosecutors and judges 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.

CJ 114 Understanding Terrorism (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
A practical study of the criminology of terrorism, essential background, modern terrorism, and issues in modern terrorism. This course will cover technological terrorism, policy, liberty, security and response to recent acts of global terrorism.

CJ 201 Criminal Investigation (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is a study of criminal investigation, techniques of surveillance, collection, recording and preservation of evidence. Students will study the analysis of evidence and use of science laboratories. This course will be conducted in cooperation with other law enforcement agencies.

CJ 209 Basic Criminalistics (2-2) 3 Cr. Hrs.
Prerequisite: **None.**
This course acquaints students with proper techniques of criminalistics. Students will have an opportunity to perform investigations in simulated crime scene situations using scientific investigative techniques involving collection, presentation, and interpretation of physical evidence.

CJ 211 Criminal Law and Procedures (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is a study of the elements of criminal law, its purposes and function. The course will focus on the laws of arrest, search and seizure, rights and duties of officers and citizens. Students will study the elements necessary to establish crime and criminal intent, sources of criminal law, criminal responsibility and general court procedures.

CJ 212 Criminology (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is designed to identify the theories of crime causation, behavioral systems in crime (organized white collar crime), nature and extent of crime. Emphasis will be given to law as social control, history and philosophy of punishment and contemporary correctional techniques.

CJ 221 Juvenile Justice (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
The purpose of this course is to study problems of juvenile delinquency and the theories that explain juvenile delinquency. Attention will be given to the work of youth agencies, legislative involvement and new approaches to the prevention of juvenile crime.

CJ 286 Police Academy (13-25) 21 Cr. Hrs.
Prerequisite: Consent of department before acceptance to the Police Academy.
This course is designed to prepare recruits in the proper techniques of investigation, crime scene process, patrol procedures, operations and techniques. Emphasis will be placed on conflict mediation, report writing, detention and prosecution of prisoners. First aid, investigations, evidence collection, disaster control, civil disorders and tactical operations will be covered in the course. (40 hrs. minimum weekly)

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 seven-week, two per semester rotation.

CAP 102 Culinary Sanitation (2-0) 2 Cr. Hrs.
Prerequisite: **None.**
The student will understand and apply basic sanitation techniques to the preparation of food products and in addition, will be prepared to pass the required certification examination of the Educational Foundation. Topics covered in the course include 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.

CAP 103 Introduction to Professional Cooking Skills and Technique (5-0) 5 Cr. Hrs.
Prerequisite: **CAP 102 or current ServSafe certification.**
This course will provide a broad orientation to the aspiring chef so that they will better understand what is required to succeed in the industry. Emphasis for discussion will be on professionalism, review of safety and sanitation, equipment, and identification of food products. Students will be required to purchase an initial set of hand tools for skills development. Students must receive an overall GPA of 2.5 to pass the class, as well as pass the final practical with a minimum of 2.5.

CAP 124 Breakfast and Pantry (4-0) 4 Cr. Hrs.
Prerequisite: **CAP 103.**
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 and recipe procedure will be taught. Pantry cookery skills will include basic pantry operation: simple and composite salads, salad dressings, fruit trays, and cold sandwich preparation.

CAP 125 Pastries 1 (4-0) 4 Cr. Hrs.
Prerequisite: **CAP 103.**
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, properly use hand tools and machinery; regulate and use an oven properly; understand health, safety and sanitation of work areas, make pies, puddings, pastries, cakes, and tortes.

CAP 128 Introduction to Food Techniques (4-0) 4 Cr. Hrs.
Prerequisite: **CAP 103.**
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 also be included.

CAP 142 Butchery (4-0) 4 Cr. Hrs.
Prerequisite: **CAP 103.**
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.

CAP 143 Dining Room Service (4-0) 4 Cr. Hrs.
Prerequisite: **CAP 103.**
Upon successful completion of the course, the student will be able 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, understanding the art and science of employee relationships and the value of customer relationships.

CAP 144 Baking 1 (4-0) 4 Cr. Hrs.
Prerequisite: **CAP 103.**
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, and cost out a recipe. In addition, students will be able to produce the following: 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.

CAP 190 Externship (1-15) 3 Cr. Hrs.
Prerequisite: **CAP 103.**
This course is designed to give the student, without work experience, a first hand opportunity to gain working experiences in a quality run establishment while rotating through various work stations in a food service work environment. This is an elective course and requires departmental approval for enrollment.

CAP 215 Charcutiere (4-0) 4 Cr. Hrs.
Prerequisite: **CAP 103 and all core CAP 100 level courses.**
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 also taught.

CAP 227 Restaurant Cooking and Preparation (4-0) 4 Cr. Hrs.
Prerequisite: **CAP 103 and all core CAP 100 level courses.**
Students will participate in four workstations: Roast—Grill, Sauté, Entremetier (middle station) and Garde Manger—Pantry. Students will learn classical and modern cooking techniques and recipe development and the importance of consistency and clean work methods.

CAP 229 International Cuisine (4-0) 4 Cr. Hrs.
Prerequisite: **CAP 103 and all core CAP 100 level courses.**
Students will learn the culture, history, and terminology of various international cuisines, while also studying their traditional and contemporary cooking techniques. Students will prepare multi-course dinners for large groups based on those cuisines to reinforce this knowledge.

CAP 240 Pastries 2 (4-0) 4 Cr. Hrs.
Prerequisite: **CAP 103 and all core CAP 100 level classes.**
This course will cover the more intricate methods of producing fine pastries, puddings, mousse, cakes, tortes, ice cream desserts and chocolate work. Instruction covers recipe expansion and presentation.

CAP 241 Culinary Nutrition (2-0) 2 Cr. Hrs.
Prerequisite: **None.**
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.

CAP 242 Á la Carte (4-0) 4 Cr. Hrs.
Prerequisite: **CAP 103 and all core CAP 100 level courses.**
Upon successful completion of this course, the student will be able to apply modern techniques in the preparation and presentation of food using sauté, and grill techniques. Students will gain an understanding entremetier, garde manger, food storage, stations. Proper lockdown-clean up procedure will be taught. Preparation and presentation of salads, cold meats, sandwiches as well as plate presentation will also be taught.

CAP 243 Storeroom Operations (3-0) 3 Cr. Hrs.
Prerequisite: **CAP 103 and all core CAP 100 level courses.**
Upon successful completion of this course, the student will have a 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.

CAP 247 Banquets and Catering (2-2) 3 Cr. Hrs.
Prerequisite: **CAP 103.**
Upon successful completion of the course, the student will demonstrate the ability to display knowledge of a variety of catering operations including planning, organizing, marketing and executing receptions, parties and special events. Students must participate in two events. This is an elective course.

CAP 260 Competitive Ice Carving (2-2) 3 Cr. Hrs.
Prerequisite: **Proficiency evidenced in CAP and/or CM courses.**
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.

CAP 265 Advanced Competitive Ice Carving (1-3) 3 Cr. Hrs.
Prerequisite: **CAP 260 or consent of the department.**
This course will present safety procedures related to ice handling, tools and equipment used in ice carving, qualities of carving ice, and discuss proper care and sharpening of tools. Use of templates and production of basic carvings will be accomplished. Advanced carving ability incorporating joining, assembling and multi block will be covered. This is an elective course.

CAP 267 Chocolatier (4-0) 4 Cr. Hrs.
Prerequisite: **CAP 103 and CAP 125 or consent of department.**
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 and chocolate truffle making, This is an elective course.

CAP 295 Salon Competition 1 (2-2) 3 Cr. Hrs.
Prerequisite: **Selection to participate is made by the Chef Instructors.**
Students will participate in a class which will build and refine their culinary skills. This first course will introduce the students to the requirements necessary to successfully compete in culinary competition. Students selected for this class may form the College Culinary Team. A number of field trips and training sessions, off campus, will be scheduled. This is an elective course.

CAP 296 Salon Competition 2 (2-2) 3 Cr. Hrs.
Prerequisite: **Selection to participate is made by the Chef Instructors. Satisfactory completion of CAP 295.**
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 must 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, can represent Schoolcraft College in culinary competition(s).

CULINARY ARTS PROGRAM ADVANCED

Executive Director of Development & Governmental Relations: John Walsh, JD
Director: Bruce Konowalow, MA
Instructors: Instructor Marcus Haight, CEC, CEPC

CAPA 209 Introduction to Brigade (1-1) 1 Cr. Hr.

Prerequisite: **Successful completion of a Culinary Arts Associates degree or equivalent qualifications. Completion of sanitation and nutrition courses or completion of American Culinary Federation approved seminars or equivalent certification. GPA of 3.0 or higher. One year of work experience in a fine dining restaurant is preferred. Admission to the Brigade program.**

In the first of two demonstration courses of the Brigade program, the chef instructor will demonstrate basic techniques in butchering meats and fish, preparation of stocks and sauces as well as basic pastry creams, custards and meringues. This will assure that students have a consistent foundation in basic principles and techniques that will be used during the entire program.

CAPA 210 Restaurant Demonstration Week (1-1) 1 Cr. Hr.

Prerequisite: **Successful completion of a Culinary Arts Associates degree or equivalent qualifications. Completion of sanitation and nutrition courses or completion of American Culinary Federation approved seminars or equivalent certification. One year of work experience in a fine dining restaurant is preferred. Admission to the Brigade program.**

In the second of two demonstration courses of the Brigade program, the chef instructor will demonstrate and reinforce basic techniques in butchering meats and fish, preparation of stocks and sauces as well as soufflés, meringues, ice creams and sorbets. This will assure that students have a consistent foundation in basic principles and techniques that will be used during the entire program.

CAPA 215 Saucier and Sauté (4-8.5) 6 Cr. Hrs.

Prerequisite: **Successful completion of a Culinary Arts Associates degree or equivalent qualifications. Completion of sanitation and nutrition courses or completion of American Culinary Federation approved seminars or equivalent certification. One year of work experience in a fine dining restaurant preferred. Admission to the Brigade program.**

***Saucier Cook Element*—**Most accomplished Chefs worldwide 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.

***Sauté Cook Element*—**In this course, students are introduced to the important elements of sauté cookery. Time-honored techniques as well as contemporary approaches will be covered. 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 entrees with other menu selections for balance and production sense will be presented. In addition to the sautéed items, the side dishes and garnishes for the sautéed items will be prepared by the students in this station. Plating and presentation will be emphasized daily.

CAPA 216 Fish and Hot Appetizer (4-8.5) 6 Cr. Hrs.

Prerequisite: **Successful completion of a Culinary Arts Associates degree or equivalent qualifications. Completion of sanitation and nutrition courses or completion of American Culinary Federation approved seminars or equivalent certification. One year of work experience in a fine dining restaurant preferred. Admission to the Brigade program.**

***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 proper fabrication and portioning, cooking, plating and garnishing of fish, as well as seafood. Fresh fish, crustaceans and when available, cephalopods, will be utilized in the menu format to showcase these important nutritive elements of the menu. Students will have the opportunity to learn effective fabrication, storage, rotation and utilization of the fish products. In addition to fish preparation, the side dishes that accompany the fish and shellfish will be made by the students in this station. Incorporating several cooking procedures directed by the menu and customer needs will ensure a well-rounded knowledge of the subject matter. Plating and presentation will be emphasized daily.

***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 transforming 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 menu entrees will be important goals in this section. Plating and presentation will be emphasized daily.

CAPA 217 Garde Manger and Vegetable Cooking (4-8.5) 6 Cr. Hrs.

Prerequisite: **Successful completion of a Culinary Arts Associates degree or equivalent qualifications. Completion of sanitation and nutrition courses or completion of American Culinary Federation approved seminars or equivalent certification. One year of work experience in a fine dining restaurant preferred. Admission to the Brigade program.**

***Garde Manger Element*—**Garde Manger, the cold food storage place in classical kitchens is an important element of food service. Here culinary artistry can really be showcased, providing the student with presentation skill development while honing craftsmanship. Cold sauces 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. Plating and presentation will be emphasized daily.

***Vegetable Cooking Element*—**This section will cover practical vegetable cookery in the professional kitchen. Grains, legumes, and vegetables will be highlighted. The vegetable station will be responsible for special dietary requests and will compose a different weekly vegetarian entree. Students will work with a state-of-the-art computerized nutrition program to provide printed analysis of the weekly prix fixe "Light Menu". Strict portion control methods will be learned with menu composition for a healthy, common sense approach to diet. This specialized area of study will be extremely useful to any serious culinary student.

CAPA 218 Roast and Meat Butchery (4-8.5) 6 Cr. Hrs.
Prerequisite: **Successful completion of a Culinary Arts Associates degree or equivalent qualifications. Completion of sanitation and nutrition courses or completion of American Culinary Federation approved seminars or equivalent certification. One year of work experience in a fine dining restaurant is preferred. Admission to the Brigade program.**

Roast Station Element—Historically, the Roast station is one of the most important stations in the Kitchen Brigade. In addition to roasting, the side dishes that accompany roasted foods will be made by the student in this station. Glazes and essences will also be integrated with dishes served on this post. Plating and presentation will be emphasized daily.

Roast Butchery Station Element—A European style of butchery is taught to enhance the skill set of the culinary student. Ballontines, quenelles, croquettes, warm forcements, and custom fillings are taught. Proper fabrication, trimming and portioning are elements that will be emphasized. Inventory, storage and ordering of meat and game products will interface with the core program Butchery standard.

CAPA 219 Grill and Meat Butchery (4-8.5) 6 Cr. Hrs.
Prerequisite: **Successful completion of a Culinary Arts Associates degree or equivalent qualifications. Completion of sanitation and nutrition courses or completion of American Culinary Federation approved seminars or equivalent certification. One year of work experience in a fine dining restaurant is preferred. Admission to the Brigade program.**

Grill Station Element—Properly grilled foods are an important component of many menus. In this station, the student will learn grilling techniques for meats, poultry, fish, shellfish and vegetables. In addition to grilling, the side dishes that accompany grilled foods will be made by the student in this station. Á la minute and batch cookery of grains and vegetables will be learned. Compound butters, glazes and essences will also be integrated with dishes served on this post. Plating and presentation will be emphasized daily.

Grill Butchery Station Element—The meats and poultry to be grilled are butchered by the student in this station. Maximum yield, consistent portioning and correct trimming are emphasized here. Proper storage, forecasting needs and ordering of meat and poultry will be addressed in this station.

CAPA 220 Restaurant Desserts (4-8.5) 6 Cr. Hrs.
Prerequisite: **Successful completion of a Culinary Arts Associates degree or equivalent qualifications. Completion of sanitation and nutrition courses or completion of American Culinary Federation approved seminars or equivalent certification. One year of work experience in a fine dining restaurant is preferred. Admission to the Brigade program.**

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. Á la minute and batch cookery will define varied approaches to production balance. Quick sabayons, soufflés and fresh fruit compositions will enhance the culinarian's skill repertoire. Multi-use applications for sorbet and ice cream offerings will be explored in the format of parfaits, coupes, and frozen desserts. Plating and presentation will be emphasized daily.

CAPA 235 European Study Tour (1-1) 1 Cr. Hr.
Prerequisite: **Successful completion of a Culinary Arts Associates degree or equivalent qualifications. Completion of sanitation and nutrition courses or completion of American Culinary Federation approved seminars or equivalent certification. One year of work experience in a fine dining restaurant is preferred. Admission to the Brigade program and satisfactory completion of CAPA 209 and CAPA 210 as well as all other CAPA courses taken.**

This course is designed to expose the students to a culture that revolves around food, wine and the arts. Students will visit local restaurants including, in the case of France, cafes, brasseries, bistros and starred (examples: one, two, or three starred) restaurants. Local markets will be visited for fresh foodstuffs, food products, and food equipment. Where possible, specialty markets and wine shops will also be visited. Students will be exposed to the European way of life, including use of local mass transportation to visit cultural venues. Independent Study and reporting is available as an alternative to this course. Students must contact the Director of Culinary Arts for more information prior to enrolling in this course.

CULINARY BAKING AND PASTRY ARTS

Executive Director of Development & Governmental Relations: John Walsh, JD
Director: Bruce Konowalow, MA
Instructors: Professor Joseph Decker, CMPC
Professor Jeffrey Gabriel, CMC

CBPA 103 Introduction to Baking and Pastry Skills and Techniques (2-0) 2 Cr. Hrs.
Prerequisite: **CAP 102.**

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.

CBPA 125 Pastries (5-15) 20 Cr. Hrs.
Prerequisite: **CBPA 103.**

Upon successful completion of this course, students 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.

CBPA 144 Baking (3.75-11.25) 15 Cr. Hrs.
Prerequisite: **CBPA 103.**

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, as well as production of various cookies, quick breads, muffins and biscuits. Advanced techniques will be taught including: fermentation processes and how they contribute to flavor; mixing methods, the functionality of ingredients, the study of various flours, as well as chemical reactions that take place while baking. The production of artisan breads, laminated doughs, savory baked goods, specialty baked goods, breakfast pastries, high ratio cakes and decorative centerpieces will be important aspects of this course.

CULINARY MANAGEMENT

Executive Director of Development & Governmental Relations: John Walsh, JD
Director: Bruce Konowalow, MA
Instructors: Adjunct Faculty

CM 107 Food and Culture (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is a cross cultural, interdisciplinary investigation in 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.

CM 108 Introduction to Hotel/Hospitality Management (2-0) 2 Cr. Hrs.
Prerequisite: **None.**
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 nation's largest industry.

CM 109 Hospitality Law (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course provides students with an overview of the general concepts of law as it relates to the 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.

CM 203 Restaurant Concepts and Design (3-0) 3 Cr. Hrs.
Prerequisite: **Completion of 2-year Culinary Arts Program (CAP).**
This course will explore new concepts for the entrepreneur in the restaurant industry. New trends and restaurant décor, along with facility layout and design will be emphasized.

CM 210 Wine and Spirits (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course will provide 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 will be given to table, sparkling and dessert wines. The student will gain understanding of purchasing and storing wines, retail merchandising, bar operation and beverage management. Students will develop an understanding of wine and spirit laws. This is an elective course.

CM 211 Culinary Marketing for the Restaurant Industry (3-0) 3 Cr. Hrs.
Prerequisite: **Completion of 2-year Culinary Arts Program (CAP).**
This course is an overview of the general concepts of marketing and its relation to the restaurant business. Product merchandising, promotion and customer satisfaction will be covered. Different styles of advertising and how to measure their effectiveness will be explored.

CM 213 Culinary Management for Restaurant Operations (3-0) 3 Cr. Hrs.
Prerequisite: **Associate Degree in Culinary Arts or 2-year Certificate in Culinary Arts.**
Students will 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.

CM 222 Management Accounting for Restaurant Industry (4-0) 4 Cr. Hrs.
Prerequisite: **Completion of 2-year Culinary Arts Program (CAP).**
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.

DESIGN

Associate Dean: Bruce Sweet, MA
Instructors: Professor Catherine Ferman, MS, PE
Adjunct Faculty

DSGN 113 Industrial Schematics with Animation (2-2) 3 Cr. Hrs.
Prerequisite: **Windows experience highly recommended.**
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.

DSGN 180 Machine Elements and Design (3-2) 4 Cr. Hrs.
Prerequisite: **CAD 107 or equivalent and MATH 113.**
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.

DSGN 200 Geometric Dimensioning and Tolerancing (2-0) 2 Cr. Hrs.
Prerequisite: **DRFG 102, equivalent work experience or consent of department.**
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.

DSGN 240 Tool and Die Design (2-4) 4 Cr. Hrs.
Prerequisite: **CAD 107 or equivalent and MATH 113.**
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.

DSGN 260 Jig and Fixture Design (2-4) 4 Cr. Hrs.
Prerequisite: **CAD 107 or equivalent and MATH 113.**
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.

DRAFTING

Associate Dean: Bruce Sweet, MA
Instructors: Adjunct Faculty

DRFG 102 Machine Trades Print Reading (2-0) 2 Cr. Hrs.
Prerequisite: **WELD 108 or equivalent.**
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.

DRFG 106 Fundamentals of Drafting (2-0) 2 Cr. Hrs.
Prerequisite: **None.**
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.

DRFG 114 Descriptive Geometry (2-2) 3 Cr. Hrs.
Prerequisite: **CAD 103 or consent of department.**
Students will explore graphic representation and solution of space problems, basic and advanced orthographic projection, points, lines, planes, solids, auxiliary views, parallelism, perpendicularity, developments and intersections

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.
Prerequisite: **None.**
This course is 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. In addition, this course explores 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.

ECON 201 Principles of Economics (4-0) 4 Cr. Hrs.
Prerequisite: **MATH 053 or equivalent.**
This course provides students with 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.

ECON 202 Principles of Economics (4-0) 4 Cr. Hrs.
Prerequisite: **MATH 053 or equivalent.**
This course provides students with an introduction to the theory of consumer behavior, production theory, market structure in product and resource/factor markets, and microeconomic policy.

ELECTRICITY, ELECTRONICS, ELECTROMECHANICS

Associate Dean: Bruce Sweet, MA
Instructors: Professor William Schlick, BEE
Adjunct Faculty

ELECT 119 Basic Measurement and Reporting Skills (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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 sinewave generator and the oscilloscope. In the electronics laboratory, the student will make measurements, record data, maintain a logbook 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.

ELECT 125 Electrical, Electronics Experience 1 (0-40) 3 Cr. Hrs.
Prerequisite: **Consent of department.**
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 a basis for grade in the course.

ELECT 127 DC Circuits and Mathematical Modeling (5-0) 5 Cr. Hrs.
Prerequisite: **High school Algebra I or MATH 053.**
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 Fundamentals and Mathematical Modeling. Laboratory experiments and project(s) 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.

ELECT 128 AC Circuits and Mathematical Modeling (5-0) 5 Cr. Hrs.
Prerequisite: **ELECT 127.**
Corequisite: **ELECT 129.**
This course is designed to explore the theory and application of AC Fundamentals. Sinewave 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 utilized 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.

ELECT 129 Diodes and Transistors (3-0) 3 Cr. Hrs.
Prerequisite: **ELECT 127.**
Corequisite: **ELECT 128.**
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 biopolar types, J type FETs, enhancement and depletion MOSFETs. Finally, transistor switching circuits will be examined.

ELECT 134 Introduction to Microcontrollers (3-0) 3 Cr. Hrs.
Prerequisite: **COMPS 126.**
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. The students will keep the Board of Education at the completion of the course.

ELECT 135 Fluid Power (4-0) 4 Cr. Hrs.
Prerequisite: **MATH 053 or equivalent.**
This course emphasizes the understanding of the 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.

ELECT 200 Electrical, Electronics Experience 2 (0-40) 3 Cr. Hrs.
Prerequisite: **ELECT 125 or ELECT 226.**
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.

ELECT 204 Data Acquisitioning and Interface (2-3) 3 Cr. Hrs.
Prerequisite: **ELECT 134 completed within the past year, ELECT 206 and ELECT 226.**
This course will introduce the student to various computer interfaces by having the student develop program and verify their operation with the actual interface hardware.

ELECT 206 Operational Amplifiers and Linear Integrated Circuits (4-0) 4 Cr. Hrs.
Prerequisite: **ELECT 129.**
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.

ELECT 225 Electrical, Electronics Experience 3 (0-40) 3 Cr. Hrs.
Prerequisite: **ELECT 200.**
This is a cooperative industrial assignment for a student who has been employed for 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.

ELECT 226 Digital Logic Circuits (4-0) 4 Cr. Hrs.
Prerequisite: **None.**
Corequisite: **ELECT 129.**
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 explored are memory (core, RAM and ROM) and bidirectional line drivers. The laboratory work coincides with classroom lecture material utilizing integrated circuits almost exclusively.

ELECT 229 Electronic Troubleshooting (3-0) 3 Cr. Hrs.
Prerequisite: **ELECT 206 and ELECT 226.**
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.

ELECT 237 Programmable Logic and Industrial Controls (4-0) 4 Cr. Hrs.
Prerequisite: **Windows experience highly recommended.**
The student 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.

ELECT 239 Programmable Logic System Design (4-0) 4 Cr. Hrs.
Prerequisite: **ELECT 237 or equivalent PLC experience.**
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 be placed 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.

ELECT 240 Electronic Data Communication (3-2) 4 Cr. Hrs.
Prerequisite: **ELECT 206 and ELECT 226.**
The student will first study the basics of communications which include AM, FM, and PM (modulations), receivers and transmitters, antennas and transmission lines. Instruction in data communication concepts will be covered next starting with the telephone line equipment, MODEMS and RS standards, and finally fiber communication links.

ELECT 241 Electronics Projects (3-0) 3 Cr. Hrs.
Prerequisite: **ELECT 229 or equivalent.**
Advanced use of electronics and a microcomputer to design, build and operate a real time system will be explored. 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 computer. 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 computer. 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.

ELECT 250 Individual Student Projects (3-0) 3 Cr. Hrs.
Prerequisite: **By midterm of the previous semester the student must submit a written proposal for approval by department.**
Students will plan, organize, assemble or fabricate and test the project of their choice or one suggested by the 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.

EMERGENCY MEDICAL TECHNOLOGY

Associate Dean: Robert F. Pearce, MPA
Program Coordinator: Robert Frank, Licensed Paramedic
Instructors: Adjunct Faculty

EMT 108 Emergency Medical Technology—Basic (8-4-4) 10.5 Cr. Hrs.
Prerequisite: **None.**
The Basic Emergency Medical Technician course is an approved course that provides the information and experience necessary to prepare the student to take the National Registry of Emergency Medical Technician 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.

EMT 114 Emergency Medical Technology—Specialist (5-3-6) 7 Cr. Hrs.
Prerequisite: **EMT 108.**
Emergency Medical Technology-Specialist is an approved course that provides the information and experience necessary to prepare the student to take the National Registry of Emergency Medical Technician-Intermediate 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 108). 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.

EMT 201 Paramedic Technology 1 (11-3) 12.5 Cr. Hrs.
Prerequisite: **EMT 108.**
This course provides the information and experience necessary to prepare the student for EMT 202 and to take the National Registry of Emergency Medical Technician-Paramedic licensing examination, following the completion of EMT 203. EMT 201 is designed to give students extensive practical application of the knowledge and skills acquired in EMT 108 and/or EMT 114 in complex medical situations. The course focuses on state-of-the-art medical technologies and medical emergency management.

EMT 202 Paramedic Technology 2 (9.5-3-19) 12.5 Cr. Hrs.
Prerequisite: **EMT 201.**
This course provides the information and experience necessary to prepare the student for EMT 203 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 203. EMT 202 is designed to give students extensive practical application of the knowledge and skills acquired in EMT 108 and EMT 201 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.

EMT 203 Internship Experience (6-5-11) 9.5 Cr. Hrs.
Prerequisite: **EMT 202.**
This 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.

ENGINEERING

Associate Dean: Bruce Sweet, MA
Instructors: Professor Catherine Ferman, MS, PE
Assistant Professor Lisa Zaccone, MS
Adjunct Faculty

ENGR 100 Introduction to Engineering and Technology (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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.

ENGR 201 Statics (3-0) 3 Cr. Hrs.
Prerequisite: **PHYS 211.**
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.

ENGR 202 Mechanics of Materials (3-0) 3 Cr. Hrs.
Prerequisite: **ENGR 201.**
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.

ENGR 203 Dynamics (4-0) 4 Cr. Hrs.
Prerequisite: **ENGR 201.**
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.

ENGLISH

Assistant Dean: Cheryl D. Hawkins, MS
Instructors: Professor Omar Addi, MA
Professor Sumita Chaudhery, PhD
Professor Steven Dolgin, DA
Professor Mark Harris, MA
Professor Mary Alice Palm, MA
Professor Faye Schuett, PhD
Professor Ida Simmons-Short, MA
Assistant Professor Steven Berg, PhD
Assistant Professor Archana Maheshwari, MA
Adjunct Faculty

ENG 050 Modern English Grammar (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This is the first of a two-part course (ENG 050/ ENG 055) designed to prepare students for composition courses. The course 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.

ENG 055 Building Writing Skills (3-0) 3 Cr. Hrs.
Prerequisite: **Satisfactory placement test score or minimum grade of 2.0 in ENG 050 or ESL 052.**
This is the second of a two-part course (ENG 050/ ENG 055 or ESL 052/ENG 055) designed to prepare students for composition courses. The major course 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.

ENG 100 Communication Skills (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
In addition to basic writing skills related to general communication and to specific work experience, the 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 ENG 101 or any other English course.)

ENG 101 English Composition (3-0) 3 Cr. Hrs.
Prerequisite: **Satisfactory high school English background or ENG 055 with a minimum grade of 2.0.**
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.

ENG 102 English Composition (3-0) 3 Cr. Hrs.
Prerequisite: **ENG 101 with a minimum grade of 2.0.**
This course is a continuation of ENG 101 and includes practice in preparation and writing of a research paper.

ENG 106 Business English (3-0) 3 Cr. Hrs.
Prerequisite: **ENG 100 and ENG 101 with a minimum grade of 2.0 and basic computer skills.**
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.

ENG 107 Introduction to Journalism (3-0) 3 Cr. Hrs.
Prerequisite: **ENG 101 with minimum grade of 2.0 or consent of instructor. ENG 102 recommended.**
This course is an introductory survey in mass media such as newspapers, magazines (consumer and small), radio, TV, advertising, and public relations. The course will emphasize newspapers and magazines while recognizing news and feature values, discovering audience, reporting, writing, planning content and format.

ENG 116 Technical Writing (3-0) 3 Cr. Hrs.
Prerequisite: **ENG 100 and ENG 101. Both with minimum grade of 2.0.**
Provides practical instruction in speaking, listening, and writing for business and industry. The course focuses on writing memoranda and a variety of business letters, but also gives detailed instruction on job hunting, resume writing, and successful participation in job interviews. Instruction includes the entire writing procedure from single sentences of fact, 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. Additionally, specific instruction will be given and practice provided in creating tables, charts, and graphs that are usually used in technical communication.

ENG 200 Introduction to Film (4-0) 4 Cr. Hrs.
Prerequisite: **ENG 101 with a minimum grade of 2.0 or consent of instructor. ENG 102 recommended.**
This course will study film in terms of how it accomplishes what it does, whether as simple entertainment, social comment or complex art. Students will explore the history, criticism, aesthetics and technique of film. Emphasis will be on viewing and discussing selected films.

ENG 203 Children's Literature (3-0) 3 Cr. Hrs.
Prerequisite: **ENG 101 required; ENG 102 recommended. Minimum grades of 2.0 or consent of instructor.**
This course is a survey of literature of children of elementary school age. Through reading, observation and research the student is able to establish standards of critical evaluation.

ENG 205 Creative Writing (3-0) 3 Cr. Hrs.
Prerequisite: **ENG 101 with a minimum grade of 2.0 or consent of instructor. ENG 102 recommended.**
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.

ENG 206 Creative Writing (3-0) 3 Cr. Hrs.
Prerequisite: **ENG 101 with a minimum grade of 2.0 or consent of instructor. ENG 102 recommended.**
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.

ENG 221 Advanced Composition (3-0) 3 Cr. Hrs.
Prerequisite: **ENG 101 with a minimum grade of 2.0 or consent of instructor. ENG 102 recommended.**
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. This course also trains Writing Fellows to tutor other students as they complete their writing assignments.

ENG 222 Tutoring English Composition (3-0) 3 Cr. Hrs.
Prerequisite: **ENG 101 with grade of 3.5 or ENG 102 with grade of 3.0 and consent of the instructor.**
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.

ENG 243 Introduction to Literature—Short Fiction (3-0) 3 Cr. Hrs.
Prerequisite: **ENG 101 required; ENG 102 recommended. Minimum grades of 2.0 or consent of instructor.**
Students will read and discuss short fiction, especially fiction written since 1850. This course is designed to develop standards for critical evaluation and to increase understanding and appreciation of prose fiction.

ENG 244 Introduction to Literature—Poetry (3-0) 3 Cr. Hrs.
Prerequisite: ENG 101 with a minimum grade of 2.0 or consent of instructor. ENG 102 recommended.
Students will read and discuss poetry, especially that written since 1850. This course is designed to develop standards for critical evaluation and to increase appreciation for poetry.

ENG 245 Introduction to Literature—Drama (3-0) 3 Cr. Hrs.
Prerequisite: **ENG 101 with a minimum grade of 2.0 or consent of instructor. ENG 102 recommended.**
Students will read and discuss a number of plays, especially those written since 1850. This course is designed to develop standards for critical evaluation and increase understanding and appreciation of drama as a literary form.

ENG 246 Introduction to Literature—Novel (3-0) 3 Cr. Hrs.
Prerequisite: **ENG 101 with a minimum grade of 2.0 or consent of instructor. ENG 102 recommended.**
Students will read and discuss novels, especially those written since 1850. This course is designed to develop standards for critical evaluation and to increase understanding and appreciation of prose fiction.

ENG 248 Introduction to Literature—Shakespeare (3-0) 3 Cr. Hrs.
Prerequisite: **ENG 101 with a minimum grade of 2.0 or consent of instructor. ENG 102 recommended.**
Students will read and discuss selected Shakespearean works. This course is designed to develop standards for evaluation and increased understanding of one of Western Civilization's greatest playwrights.

ENG 251 American Literature From Colonial Times to Civil War (3-0) 3 Cr. Hrs.
Prerequisite: **ENG 101 with a minimum grade of 2.0 or consent of instructor. ENG 102 recommended.**
This course examines significant literary works that best illustrate the changing currents of thought and expression that dominated American life from colonial time to the Civil War.

ENG 252 American Literature From Late Nineteenth Century to Present (3-0) 3 Cr. Hrs.
Prerequisite: **ENG 101 with a minimum grade of 2.0 or consent of instructor. ENG 102 recommended.**
This course is a 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 will be examined.

ENG 275 World Literature—Casebook Studies of Universal Themes (3-0) 3 Cr. Hrs.
Prerequisite: **Completion of ENG 101 with a minimum grade of 2.0**
This course will examine a variety of international literary works pertaining to common, literary themes. Such themes will be explored through poetry, drama, fiction and/or non-fiction. Works not originally written in English will be read in translation.

ENG 280 The Nature of Language (3-0) 3 Cr. Hrs.
Prerequisite: **ENG 101 with a minimum grade of 2.0 or consent of instructor. ENG 102 recommended.**
This course is 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.

ENGLISH AS A SECOND LANGUAGE

Assistant Dean: Cheryl D. Hawkins, MS
Instructors: Adjunct Faculty

ESL 051 English Language Skills—Communication, Speaking and Listening (3-0) 3 Cr. Hrs.
Prerequisite: **Appropriate placement test score.**
This course is part of a series of courses designed to introduce non-native speakers of English to the skills they will need to succeed in an academic environment where English is spoken. Students will practice and develop verbal English language skills and will study vocabulary and techniques for building one's vocabulary.

ESL 052 English Grammar and Basic Writing Skills (3-0) 3 Cr. Hrs.
Prerequisite: **Appropriate placement test score.**
This course is part of a series of courses designed to introduce non-native speakers of English to the skills they will need to succeed in an academic environment where English is spoken. The content of this course focuses on major grammatical concepts, including parts of speech, sentence functions and sentence patterns.

ESL 100 English Communication Skills (3-0) 3 Cr. Hrs.
Prerequisite: **Appropriate placement test score or successful completion of ESL 052.**
This course is part of a series of courses designed to introduce non-native speakers of English to the skills they will need to succeed in an academic environment where English is spoken. The focus of this course is on high level grammar, communication skills including listening and vocal features (such as volume and intonation) and nonverbal communication skills.

ESL 101 English Writing and Reading Skills (3-0) 3 Cr. Hrs.
Prerequisite: **Appropriate placement test score or successful completion of ESL 052.**
This course is part of a series of courses designed to introduce non-native speakers of English to the skills they will need to succeed in an academic environment where English is spoken. Students will practice and develop writing and critical thinking skills in preparation for ENG 101. A grade of 2.0 or better is necessary to enter ENG 101.

ENVIRONMENTAL TECHNOLOGY

Associate Dean: Monica Sullivan, MS
Instructors: Professor Diane O'Connell, MS
Adjunct Faculty

ENVR 107 Soil Mechanics (3-2) 4 Cr. Hrs.
Prerequisite: **GEOG 212 and MATH 119.**
The 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.

ENVR 204 Introductory Surveying (3-0) 3 Cr. Hrs.
Prerequisite: **GEOG 212 and CIS 115.**
This course is an introduction to field survey techniques and computer applications related to surveying. Comprehensive study of the techniques and procedures used to locate and measure features will be explored. The course will include the use of surveying total station and data collector in the gathering of field data for planimetric and topographic maps.

ENVR 206 Environmental Law and Regulations (3-0) 3 Cr. Hrs.
Prerequisite: **GEOG 212.**
Corequisite: **POLS 105 should be taken concurrent with ENVR 206.**
This course provides an introduction to both federal and state environmental laws and regulations as well as reviews the historical context of United States environmental legislation. Students examine environmental case law with an emphasis on toxic torts. The course provides an introduction to major environmental legislation, including Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERLA/SARA), Clean Air Act, and Toxic Substances Control Act (TSCA). Companion State of Michigan legislation and rules are also included and the course concludes with a discussion of environmental ethics.

ENVR 215 Environmental Seminar (1-0) 1 Cr. Hr.
Prerequisite: **GEOG 212 and the completion of one year in the Environmental Technology Program or the consent of the instructor.**
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.

ENVR 218 Environmental Hydrology (3-0) 3 Cr. Hrs.
Prerequisite: **GEOG 130 or GEOG 133 and GEOG 212.**
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.

ENVR 231 Field Co-op Experience (1-4) 5 Cr. Hrs.
Prerequisite: **Successful completion of two years of the Environmental Technology Program.**
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.

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.
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.**
This course provides an introduction to basic fire suppression, prevention procedures and skill development. FIRE 112 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 Marshall recognized fire department, or currently seeking employment, and/or volunteer in a recognized fire district. This course meets the State-mandated requirements for preparing students to take the exam for State certification for entry-level on-call or volunteer fire fighters.

FIRE 119 Firefighter 2—Advanced Fire Suppression (7-3) 10 Cr. Hrs.
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 119 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 is for students who are currently employed by a Michigan Fire Marshall recognized fire department, or currently seeking employment, and/or volunteer in a recognized fire district. This course meets the State mandated requirements for preparing students to take the exam for state certification for entry-level career firefighters.

FIRE 124 Fire Academy (13-7) 20 Cr. Hrs.
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.**
The Fire Academy combines FIRE 112 and FIRE 119, 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, or currently seeking employment, and/or volunteer in a recognized fire district. Students must be able to attend on a full-time basis. This course 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.

FIRE 128 Fire Fighting Hydraulics and Water Supply (4-0) 4 Cr. Hrs.
Prerequisite: **None.**
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. It is a course of solving problems of water delivery application for fire fighting situations, along with the theory that is necessary in finding correct solutions. Studies will include the physical laws of liquids as they apply to water for fire fighting, the characteristics of water, and its controlled delivery through highly technical machinery and equipment. It will include a study of the safe and efficient operation of that equipment during training and/or actual fire fighting operations. Students will be required to solve sample problems in writing. They will also be required to complete a brief study of a local water system.

FIRE 130 Firefighting Tactics and Strategy (3-0) 3 Cr. Hrs.
Prerequisite: **FIRE 112 is recommended.**
This course examines new technology, firefighting techniques and improved equipment as well as provides a guide for firefighters and fire officers who need methods for handling specific situations. The course also covers general principles of firefighting, engine company operations, search and rescue, structure fires, and fire related emergencies.

FIRE 135 Fire Protection Systems (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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.

FIRE 141 Special Topic—Incident Command System (1-0) 1 Cr. Hr.
Prerequisite: **None.**
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 course provides students with 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.

FIRE 142 Special Topic—Terrorism Awareness (1-0) 1 Cr. Hr.
Prerequisite: **None.**
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 abilities to recognize potential targets, identify incidents, and establish priorities and safe response procedures.

FIRE 200 Fire and Arson Investigation (4-0) 4 Cr. Hrs.
Prerequisite: **FIRE 112 or FIRE 124.**
This course is designed to acquaint students with data on fire dynamics, explosions and fire behavior. The course is for students interested in learning fundamentals of collection, preservation and analysis of physical evidence. Also covered as part of the course are new laws and court decisions controlling investigator's access to scene and admission of evidence. This course prepares students for on-scene investigation as well as in-service or promotional exams.

FIRE 205 Fire Department Organization and Administration (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
Designed to equip the student with knowledge to effectively tackle challenging management problems and deliver practical solutions for managing today's fire departments. This course provides guidance on leadership skills, motivating and disciplining personnel, accepting cultural diversity and unity. Also covered in this course is managing human resources, the use of computer technology for information management and strategic planning and budgeting.

FIRE 207 Fire Company Officer (3-0) 3 Cr. Hrs.
Prerequisite: **FIRE 119 or FIRE 124.**
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 fire fighting skills, this course provides students with the competencies required for a first-line fire company officer.

FRENCH

Assistant Dean: Cheryl D. Hawkins, MS
Instructors: Adjunct Faculty

FR 101 Elementary French 1 (4-0) 4 Cr. Hrs.
Prerequisite: **None.**
This course focuses on the 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.

FR 102 Elementary French 2 (4-0) 4 Cr. Hrs.
Prerequisite: **One year of high school or French FR 101 with grade of 2.0 or better or consent of instructor.**
This course is a continuation of FR 101 with a continued emphasis on the spoken language and reading of graded materials in French for comprehension without translation. Course will include extensive use of French in the classroom.

FR 201 Intermediate French 1 (4-0) 4 Cr. Hrs.
Prerequisite: **Two years of high school French or FR 102 with grade of 2.0 or better or consent of instructor.**
This course is a continuation of FR 102. The course includes a review and application of essential principles of French grammar structure and training in 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.

FR 202 Intermediate French 2 (4-0) 4 Cr. Hrs.
Prerequisite: **Three years of high school French or FR 201 with grade of 2.0 or better or consent of instructor.**
This course is a continuation of FR 201. Course emphasis will be on oral skill, conversation, and reading without translation.

GEOGRAPHY

Associate Dean: Monica Sullivan, MS
Instructors: Professor Diane O'Connell, MS
Adjunct Faculty

GEOG 105 Earth Science for Elementary Teachers (3-2) 4 Cr. Hrs.
Prerequisite: **None.**
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. Course includes lecture, peer teaching, selecting textbooks, demonstrations, and lesson plan development.

GEOG 130 Physical Geography (4-0) 4 Cr. Hrs.
Prerequisite: **None.**
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.

GEOG 133 World Regional Geography (4-0) 4 Cr. Hrs.
Prerequisite: **None.**
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, Subsaharan 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.

GEOG 212 Environmental Science (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is an introductory environmental science course with no prerequisites. The course offers an in-depth examination of a variety of local, regional, and global environmental concerns. The course focuses on he effects that human societies have on the physical environment and the global biosphere. Topics include human population distribution, growth rates and population explosion; erosion and contamination of soil resources, degradation of water resources, air pollution, global climate change, waste management, biodiversity and deforestation.

GEOG 217 Water Resources (3-0) 3 Cr. Hrs.
Prerequisite: **GEOG 212, GEOG 130 or GEOG 133.**
This course is a 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 will be held. Course 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.

GEOG 225 Introduction to Geographic Information Systems—GIS (4-0) 4 Cr. Hrs.
Prerequisite: **None.**
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.

GEOG 236 Geography for International Business (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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 polices and the environment.

GEOG 241 Geography Field Trip—Latin America (4-0) 4 Cr. Hrs.
Prerequisite: **None.**
This field study course includes a systematic geographic study of the Latin American realm, which includes the Caribbean, Middle America, and South America. Geographic concepts, such as map reading and spatial analysis, are first introduced. The physical, cultural, political, and social features of the Latin America realm are studied, with a focus on regional concerns or problems. The course will conclude with a field trip to a Latin American country to facilitate a live, experiential encounter with the unique physical and cultural landscape of that country.

GEOLOGY

Associate Dean: Monica Sullivan, MS
Instructors: Professor James Rexius, MS
Adjunct Faculty

GEOL 120 Geology of Michigan (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
Geology of Michigan is a history of the geological evolution of the state. Course emphasis will be 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.

GEOL 133 Physical Geology (3-3) 4 Cr. Hrs.
Prerequisite: **None.**
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.

GEOL 134 Historical Geology (3-3) 4 Cr. Hrs.
Prerequisite: **GEOL 133.**
Historical Geology is the study of the geologic development of the earth as a planet from its creation to the present time. The first half of the course is a study of the methods and techniques that the science of geology uses to unravel the history of the earth. The second half applies these techniques to present the geologic history of the continent of North America as a case study.

GEOL 140 Regional Geology (2 - 0) 2 Cr. Hrs. Each
GEOL 141 ***Prerequisite:*** **GEOL 133.**
GEOL 142 (Spring and/or Summer Sessions only)
GEOL 143 A different selected geologic region of interest in
GEOL 144 the United States or Canada will be studied each
GEOL 145 spring or summer in detail. A field trip to each area
GEOL 146 can be taken to observe first hand the rocks, fossils,
GEOL 147 structures and significant depositional and erosional
GEOL 148 processes at work in that particular region. Areas
GEOL 149 to be considered include the Canadian shore of Lake Superior, southern Appalachians, northern Arizona, 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.

GEOL 237 Mineralogy (3-2) 4 Cr. Hrs.
Prerequisite: **GEOL 133.**
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. The course also includes the formation of minerals and mineral occurrences and associations. Laboratory periods concentrate on the methods used in the identification of about 100 minerals.

GERMAN

Assistant Dean: Cheryl D. Hawkins, MS
Instructors: Adjunct Faculty

GER 101 Elementary German 1 (4-0) 4 Cr. Hrs.
Prerequisite: **None.**
This course covers the fundamentals of pronunciation, basic grammar structure, and essential vocabulary. Particular emphasis will be placed on speaking and understanding German; practice in written German given by means of dictation and easy translation. Workbook exercises are required.

GER 102 Elementary German 2 (4-0) 4 Cr. Hrs.
Prerequisite: **Minimum one year of high school German or GER 101 with grade of 2.0 or better or consent of instructor.**
This course is a continuation of German 101 with emphasis on Business German culture and introductory terminology, focus on formal address. Course will 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 are required.

GER 201 Intermediate German 1 (4-0) 4 Cr. Hrs.
Prerequisite: **Two years of high school German or GER 102 with grade of 2.0 or better or consent of instructor.**
Fundamentals of pronunciation, basic grammar structure, and essential vocabulary will be covered. Particular emphasis will be placed on speaking and understanding German; practice in written German given by means of dictation and easy translation. Workbook exercises are required.

GER 202 Intermediate German 2 (4-0) 4 Cr. Hrs.
Prerequisite: **Three years of high school German or GER 201 with grade of 2.0 or better or consent of instructor.**
This course is a continuation of German 201. Review and application of essential principles of German structure and more elaborate application of Business German terminology will be covered. Course will continue emphasis on the listening, speaking, and reading of selected business sections. Understanding advanced grammatical structures through writing and speaking in the classroom will be explored. Workbook exercises are required.

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.
Prerequisite: **None.**
This course introduces the student to the fundamentals of the language of medicine. Definitions, pronunciations, spelling and abbreviations of anatomic, symptomatic, diagnostic and operative terms pertaining to each anatomical system of the body will be reviewed. Terms pertaining to pharmacology, clinical laboratory, radiology and pathology will also be explored.

HIT 109 Principles of Health Information Management 1 (2-2) 3 Cr. Hrs.
Prerequisite: **None.**
This course provides the student an introduction to the health information management profession. Educational and certification requirements are examined along with potential employment opportunities in the health information profession. The health information management department, its functions and the relationship to other departments is explored. Health record content, documentation requirements and the accrediting and licensing agencies that govern health information will be reviewed. Hands-on laboratory activities will help the student to gain proficiency in basic health information functions.

HIT 110 Human Diseases (4-0) 4 Cr. Hrs.
Prerequisite: **BIOL 105 or BIOL 236 or BIOL 237, and BIOL 238 and HIT 104.**
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.

HIT 111 ICD-9-CM Classification (2-2) 3 Cr. Hrs.
Prerequisite: **HIT 104, HIT 109, HIT 110 and BIOL 236 or consent of department.**
This course is an introduction to basic coding theory and computer laboratory practice applying ICD-9-CM to hospital medical/health records. 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.

HIT 112 Basic Laboratory and Diagnostic Tests (2-0) 2 Cr. Hrs.
Prerequisite: **HIT 104 or consent of department.**
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.

HIT 114 Pharmacology for Health Professionals (2-0) 2 Cr. Hrs.
Prerequisite: **HIT 104.**
This course is designed as an introduction to the principles of pharmacology, with a comprehensive review of drug action, routes of administration, and indications for use of generic drugs, and trade name drugs. The course will provide practice in pronunciation, spelling, and utilization of drug references. Class activities will assist the student in identifying drugs used to treat various body systems.

HIT 152 Computer Applications in Healthcare (2-0) 2 Cr. Hrs.
Prerequisite: **HIT 109.**
This course is an introduction to the theory and practical methodology of healthcare information systems utilized in a health information management (medical record) department. The course will introduce the student to information systems used in healthcare organizations. The student will develop an understanding of the role of the health information technician in information systems planning and development. The student will be introduced to emerging technologies in healthcare information systems.

HIT 154 Health Record Practicum (0-4) 3 Cr. Hrs.
Prerequisite: **HIT 104 and HIT 109.**
Corequisite: **HIT 156.**
This course allows the health information student hands-on experience using a chart management system that includes chart tracking, chart deficiency, coding and abstracting, master patient of health information management activities utilizing health/patient records, software applications and manual systems are simulated.

HIT 210 Healthcare Statistics for Health Information Management (2-2) 3 Cr. Hrs.
Prerequisite: **HIT 104, HIT 111 and HIT 154.**
This course introduces students to terminology, definitions and computational methodology of the basic and most frequently used health statistics. Topics examined include healthcare data collection, preparation, analysis and interpretation; cancer program requirements; vital statistics reporting.

HIT 213 Health Information Technology Seminar (1-0) 1 Cr. Hr.
Prerequisite: **None.**
Corequisite: **HIT 258.**
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.

HIT 216 Healthcare Delivery Systems (2-0) 2 Cr. Hrs.
Prerequisite: **HIT 104, HIT 111 and HIT 154.**
This course provides for a comprehensive review of the healthcare industry. Trends and changes related to healthcare facilities such as acute care hospitals, specialty hospitals, long term care facilities, managed care organizations, ambulatory care, behavioral care, hospice and home healthcare are investigated. The course will also deal with the impact and use of computers in the delivery and documentation of healthcare and the role of the health information professional within the healthcare delivery system.

HIT 217 Quality Management in Healthcare (2-0) 2 Cr. Hrs.
Prerequisite: **None.**
Corequisite: **HIT 256.**
This course is designed for the health information technology student to review methods by which a healthcare organization measures, assesses and improves the quality of healthcare services. Topics explored include traditional quality assessment, performance improvement methodologies, utilization/resource management, risk management, infection control, credentialing and the role of oversight agencies.

HIT 219 Organization and Management (1-2) 2 Cr. Hrs.
Prerequisite: **HIT 258.**
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.

HIT 220 Legal Aspects of Health Information (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course provides the health information technology student with an understanding of the American legal system and the legal requirements concerning the compilation and maintenance of health information. Additional topics include how health information is used and when it can be disclosed, state and federal regulations, statutes, including the privacy and security rules resulting from the Health Insurance Portability and Accountability Act (HIPAA).

HIT 221 Basic Ambulatory Coding (2-1) 3 Cr. Hrs.
Prerequisite: **HIT 104, HIT 109, HIT 110 and BIOL 236.**
This course is an introduction to basic coding theory and computer laboratory practice applying CPT to ambulatory medical/health records. 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.

HIT 227 Intermediate ICD-9-CM Coding (2-1) 3 Cr. Hrs.
Prerequisite: **HIT 110, HIT 111 and BIOL 236.**
This course is designed to prepare a student to code in the hospital setting using ICD-9-CM. The course will emphasize reporting requirements for codes and rules that apply to 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 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. This course is the theory and practice of coding medical records in the hospital setting using ICD-9-CM. The student will use the encoding software in the laboratory to apply coding to charts.

HIT 229 Intermediate Ambulatory Coding (2-1) 3 Cr. Hrs.
Prerequisite: **HIT 110, HIT 111, HIT 221 and BIOL 236.**
This course is the theory and practice of coding medical/health records in the hospital/ambulatory setting using Current Procedural Terminology (CPT) and Healthcare Financing Administration Common Procedure Coding System (HCPCS). The student will use encoding software in the laboratory to apply coding to medical/health records. 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.

HIT 230 Coding Practicum (1-1) 2 Cr. Hrs.
Prerequisite: **HIT 227 and HIT 229.**
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 computerized encoding systems for diagnosis and procedure coding. The student will research references in solving coding problems.

HIT 231 Ambulatory Coding Practicum (1-1) 2 Cr. Hrs.
Prerequisite: **HIT 227 and HIT 229.**
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.

HIT 256 Clinical Affiliation 2 (0-8) 2 Cr. Hrs.
Prerequisite: **HIT 110, HIT 111, HIT 154 and HIT 156.**
Corequisite: **HIT 217.**
This course provides practical experience for the student in a Health Information Management/Services Department under the supervision of qualified health information professionals. The student will have an opportunity to observe and interact with health information management professionals in a variety of healthcare facilities at off-campus sites. The student will observe, perform and report on the functions necessary to maintain a health information service.

HIT 258 Clinical Affiliation 3 (0-8) 2 Cr. Hrs.
Prerequisite: **HIT 210, HIT 216, HIT 217, HIT 257 and consent of department.**
This course provides professional practice assignments for the student in a Health Information Management/Services Department under the supervision of qualified Health Information Management professionals. The student will have the opportunity to observe and interact with Health Information Management professionals 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 organizations.

HISTORY

Assistant Dean: Cheryl D. Hawkins, MS
Instructors: Professor Robert Briggs, MAT
Professor Kent Kirkpatrick, MA
Assistant Professor Steven Berg, PhD
Assistant Professor Alexander Thomson, PhD
Adjunct Faculty

HIST 134 Ancient World (4-0) 4 Cr. Hrs.
Prerequisite: **None.**
This course is 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.

HIST 137 Early Modern World (4-0) 4 Cr. Hrs.
Prerequisite: **None.**
This course is 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.

HIST 138 Contemporary World (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is 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 counter- revolution; 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 historical context.

HIST 141 History of Michigan and the Great Lakes (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is 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.

HIST 151 Early America—U.S. History (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is a survey of the origins or American civilization: native American societies in pre-Columbian 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.

HIST 152 19th Century America—U.S. History (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is 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 antebellumreform movements; the South and slavery; the West andterritorial conquest and settlement; sectional struggle, the Civil War and Reconstruction; emergence of modern, urban, industrial America, to the beginning of the 20th century.

HIST 153 Contemporary America—U.S. History (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is 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 U.S. 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.

HIST 230 U.S. Business History (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course will provide students with 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. Course is recommended for students majoring in business, economics and history.

HUMAN DEVELOPMENT SERVICES

Director: Donna Nordman, MA
Instructors: Adjunct faculty

HDS 101 Human Potential (2-0) 2 Cr. Hrs.
Prerequisite: **None.**
This class is suitable for students who wish to work in people-oriented positions. The course provides a structured small group educational experience that is designed to teach individuals to increase self-confidence, make decisions, develop self-motivation, and improve listening skills. Students will learn strategies to enhance their own development and how to apply those skills in working with others.

HDS 110 Career Decision Making (2-0) 2 Cr. Hrs.
Prerequisite: **None.**
This course 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.

HUMANITIES

Assistant Dean: Cheryl D. Hawkins, MS
Instructors: Associate Professor James Nissen, DMA
Assistant Professor Holly Stevens, MA
Adjunct Faculty

HUM 106 Introduction To Art and Music (1-0) 1 Cr. Hr.
Prerequisite: **None.**
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. No prior technical knowledge is needed.

HUM 150 World Masterpieces (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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.

HUM 190 Individual Humanism—An Honors Colloquium (3-0) 3 Cr. Hrs.
Prerequisite: **Acceptance to the Schoolcraft Scholars honors program.**
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.

HUM 201 Art and Music in Western Civilization—Field Study (England) (3-0) 3 Cr. Hrs.
Prerequisite: **HUM 106 or HUM 150 or consent of instructor.**
This course is a humanistic study of music and art in concentrated form through field study. Course includes art forms and functional styles of historical periods as they relate to universal principles. The course will also 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 to 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, first-hand encounter with English arts and culture.

HUM 202 Art and Music in Western Civilization—Field Study (France) (3-0) 3 Cr. Hrs.
Prerequisite: **HUM 106 or HUM 150 or consent of instructor.**
This course is a humanistic study of the arts, culture, and history in concentrated form through field study. Course 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, first-hand encounter with French arts and culture.

HUM 203 Art and Music in Western Civilization—Field Study (Italy) (3-0) 3 Cr. Hrs.
Prerequisite: **HUM 106 or HUM 150 or consent of instructor.**
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, first-hand encounter with Italian arts and culture.

HUM 204 Art and Music in Western Civilization—Field Study (Spain) (3-0) 3 Cr. Hrs.
Prerequisite: **HUM 106 or HUM 150 or consent of instructor.**
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, first-hand encounter with Spanish arts and culture.

HUM 210 The Art of Being Human (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is an interdisciplinary introduction to the humanities as an overall approach to living. The course involves the student in the philosophies, religions, and arts as avenues of human inquiry and expression.

HUM 212 Mass Media and Popular Culture (3-0) 3 Cr. Hrs.
Prerequisite: **ENG 101; ENG 102 recommended.**
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.

HUM 215 Humanities Through the Arts (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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.

HUM 231 The Humanities in Western Culture (3-0) 3 Cr. Hrs.
Prerequisite: **HUM 106 and HUM 150 or consent of instructor.**
This course is 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. The course is also a study in Western thought and its resultant social and political institutions. The first of a two-semester sequence, this course will cover Ancient River-Valley, Greek, and Roman civilizations, the Middles Ages, and the Renaissance.

HUM 232 The Humanities in Western Culture (3-0) 3 Cr. Hrs.
Prerequisite: **HUM 106 or HUM 150 or consent of instructor.**
This course is 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 and civilization; at values and qualities inherent in Western art, architecture, music, literature and philosophy. The course is also a study in Western thought and its resultant social and political institutions. The second of a two-semester sequence, this course will cover the Baroque, Classical and Romantic periods, as well as the major historical, philosophical, and artistic "isms" of the modern and post-modern Western world.

LASER TECHNOLOGY

Associate Dean: Bruce Sweet, MA
Instructors: Professor James Kramer, MS
Adjunct Faculty

LASR 103 Laser Concepts (4-0) 4 Cr. Hrs.
Prerequisite: **High school Algebra 1.**
This basic course, designed for laser technicians, covers laser operation and the technical principles and equations needed to understand them and modify their output. The course 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 set-up, operation, and analysis of laser/optic systems.

LASR 104 Laser Optics and Components (5-0) 5 Cr. Hrs.
Prerequisite: **High school Algebra 2.**
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 covered include ray tracing, imaging with lenses, mirrors prisms, windows optical flats, etalons, beam expander, 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.

LASR 232 Laser Systems and Applications 1 (4-0) 4 Cr. Hrs.
Prerequisite: **LASR 103.**
A comprehensive examination of ion lasers, molecular lasers and solid-state laser, with particular attention given to argon ion CO2 gaseous and ND: YAG laser systems. Course considers typical power sources for all lasers and flash lamps and power supplies for pulsed laser systems. Course 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.

LEARNING RESOURCES

Assistant Dean: Deborah Daiek, PhD
Instructor: Professor Roy Nuffer, MSLS

LR 110 Electronic Research (1-0) 1 Cr. Hr.
Prerequisite: **None.**
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 Internet effectively, with traditional search techniques extrapolated into the increasingly electronic environment.

MANUFACTURING

Associate Dean: Bruce Sweet, MA
Instructors: Adjunct Faculty

MFG 102 Manufacturing Processes (2-4) 3 Cr. Hrs.
Prerequisite: **None.**
This course will cover fundamental manufacturing processes and will teach fundamentals only, not machine operator skills. Particular emphasis will be on machines, tools and measurements to produce an end product.

MFG 103 Manufacturing Theory and Machine Operation (2-4) 3 Cr. Hrs.
Prerequisite: **MFG 102.**
Students will learn the operation of the tool room lathe, horizontal mill, vertical mill, surface grinder, shaper and other machine tools as well as tool room and mass production procedures.

MFG 180 Industrial Entrepreneurship (2-0) 2 Cr. Hrs.
Prerequisite: **None.**
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 be a substitute for a thorough education in a conventional business curriculum.

MFG 241 Quantitative Metrology (1-2) 3 Cr. Hrs.
Prerequisite: **MET 102, MATH 113 or consent of department.**
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 covered in the course 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.

MFG 243 Manufacturing Systems Analysis (3-0) 3 Cr. Hrs.
Prerequisite: **MFG 102.**
Students will explore the 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 will be covered.

MASSAGE THERAPY

Associate Dean: Robert F. Pearce, MPA
Coordinator: Kathleen M. Paholsky, Phd, NCTMB
Instructors: Adjunct Faculty

MAS 101 Theory and Fundamentals of Massage Therapy (2-0) 2 Cr. Hrs.
Prerequisite: **None.**
Corequisite: **MAS 102 and MAS 103.**
This course deals with the professional standards, ethics, and scope of practice for massage therapy. The course introduces students to a clinical reasoning model used for recordkeeping and to determine approaches to care. Independent study is combined with classroom activities.

MAS 102 Basic Massage Applications (4-4) 6 Cr. Hrs.
Prerequisite: **None.**
Corequisite: **MAS 101 and MAS 103.**
This class provides a solid base for the preparation and performance of massage in a wellness setting. The tools of the trade, from tables and supplies through massage manipulations and techniques, are presented and practiced, with an emphasis on proper applications and body mechanics.

MAS 103 Fundamentals of Anatomy and Physiology (4-0) 4 Cr. Hrs.
Prerequisite: **None.**
Corequisite: **MAS 101 and MAS 102.**
This course provides the foundation for the study of anatomy and physiology as it relates to massage therapists. It is an interactive course that presents Western science concepts and correlations to Eastern philosophies using a common language. Subject matter includes the organization of body structure, the mechanisms of health and disease, pathology, pain, stress management and adaptation. The course introduces medical terminology, especially the language encountered in massage. Systems of control, including both the nervous and endocrine systems, are studied in relationship to how massage and bodywork depends on reflex mechanisms and feedback loops.

MAS 104 Intermediate Massage Applications (2-6) 5 Cr. Hrs.
Prerequisite: **MAS 101, MAS 102 and MAS 103.**
Corequisite: **MAS 105.**
This course covers both complementary bodywork systems and applications of massage to special populations. The course also presents business considerations for the practice of massage therapy as an employee or independent contractor. Wellness education will be addressed. Complementary bodywork systems include: hydrotherapy, lymphatic and circulatory massage, hand and foot massage, reflexology, connective tissue approaches, trigger point therapies, meridian work and acupressure points, shiatsu, polarity therapy, and introduction to spa therapies. Special populations addressed include athletes, elderly, infants, clients with physical or psychological disabilities, applications for chronic illness, working in healthcare facilities and hospice/comfort care.

MAS 105 Systems of Support and Movement (4-4-5) 7 Cr. Hrs.
Prerequisite: **MAS 101, MAS 102 and MAS 103.**
Corequisite: **MAS 104.**
The skeleton, joints and muscles make up the majority of structures encountered by massage therapists. This course focuses on the identification of each structure, their functions and actions, and the most common pathological conditions that may be encountered. A portion of this course will include a clinical internship.

MAS 106 Palpatory Skills (1-5) 3.5 Cr. Hrs.
Prerequisite: **MAS 101, MAS 102, MAS 103, MAS 104 and MAS 105.**
Corequisite: **MAS 107 and MAS 108.**
This course will provide the massage student with an extensive opportunity to explore palpation. Students will become more proficient in tissue assessment, interpretation, and analysis during massage.

MAS 107 Organ Systems Anatomy and Physiology (4-0) 4 Cr. Hrs.
Prerequisite: **MAS 101, MAS 102, MAS 103, MAS 104 and MAS 105.**
Corequisite: **MAS 106 and MAS 108.**
This course addresses those organ systems emphasized in standard anatomy courses, and focuses on the ability of the student to clinically reason and justify the indications and contraindications for massage in relation to each of the systems.

MAS 108 Massage Therapy Externship (0-/50) 3 Cr. Hrs.
Prerequisite: **MAS 101, MAS 102, MAS 103, MAS 104 and MAS 105.**
Corequisite: **MAS 106 and MAS 107.**
This is the cooperative assignment for a Massage Therapy student who has completed the prerequisites for this course. Students will meet 50-hours during the semester for at least three hours per week off-campus in the massage therapy field. The College and the therapy facility will jointly evaluate the student, which will then serve as a basis for a final grade.

MATHEMATICS

Associate Dean: Monica Sullivan, MS
Instructors: Professor Linda Balfour, MA
Professor Lois Bearden, MA
Professor Edward Kavanaugh, MA
Professor Randy Schwartz, MA
Professor Larry Williams, MA
Associate Professor Janet Arsznov, MA
Associate Professor Sandra Kerr, MA
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.
Prerequisite: **None.**
The topics covered in this course include fundamental operations with whole numbers, fractions, decimals, percentages, proportions, and integers. In addition, several topics from geometry are included.

MATH 047 Prealgebra (3-0) 3 Cr. Hrs.
Prerequisite: **MATH 045 or equivalent with grade of 2.0 or better.**
This course is intended for the student who is competent in arithmetic. Topics covered in the course 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.

MATH 053 Beginning Algebra (4-0) 4 Cr. Hrs.
Prerequisite: **MATH 047 or equivalent with grade of 2.0 or better.**
This course will explore the real number system, fundamental operations with real numbers, graphing, linear equations, factoring polynomials, rational expressions, exponents, quadratic equations, applications and introduction to the function concept.

MATH 055 Plane Geometry (3-0) 3 Cr. Hrs.
Prerequisite: **MATH 053 or equivalent with grade of 2.0 or better.**
This course includes the basic elements of geometry including deductive reasoning and formal proofs, and elementary construction with straight edge and compass.

MATH 105 Mathematics for Elementary Teachers 1 (4-0) 4 Cr. Hrs.
Prerequisite: **MATH 053 or equivalent with grade of 2.5 or better.**
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.

MATH 106 Mathematics for Elementary Teachers 2 (4-0) 4 Cr. Hrs.
Prerequisite: **MATH 105 or equivalent with grade of 2.0 or better.**
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.

MATH 111 Applications—Utility of Math (4-0) 4 Cr. Hrs.
Prerequisite: **MATH 045 or equivalent with grade of 2.0 or better.**
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.

MATH 113 Intermediate Algebra for College Students (4-0) 4 Cr. Hrs.
Prerequisite: **MATH 053 or equivalent with grade of 2.0 or better. Placement test available in Learning Assistance Center.**
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 are the topics covered in this course.

MATH 119 Trigonometry (3-0) 3 Cr. Hrs.
Prerequisite: **MATH 055 or equivalent with grade of 2.0 or better and MATH 113 or equivalent with grade of 2.0 or better.**
*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 are the topics included in this course.

MATH 122 Elementary Statistics (4-0) 4 Cr. Hrs.
Prerequisite: **MATH 113 or equivalent with grade of 2.0 or better. Placement test available in Learning Assistance Center.**
*Note: The Math Department recommends that business and social science majors take MATH 122 following MATH 135.*This course includes an 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 use of nonparametric tests.

MATH 128 Precalculus without Trigonometry (4-0) 4 Cr. Hrs.
Prerequisite: **MATH 113 or equivalent with grade of 2.0 or better. NOTE: The combination of MATH 119 and MATH 128 is NOT comparable to MATH 129. MATH 128 is a prerequisite for MATH 145 (Business Calculus) but is NOT a prerequisite for MATH 150 (Calculus I).**
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 are the topics included in this course.

MATH 129 Precalculus with Trigonometry (5-0) 5 Cr. Hrs.
Prerequisite: **MATH 113 or equivalent with grade of 2.0 or better and MATH 119 or equivalent with grade of 2.0 or better.**
Note: Math 129 is recommended for engineering, science and math majors. Topics covered in this course include 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, and conic sections. The prevailing theme is applications and graphical solutions.

MATH 135 Finite Mathematics (4-0) 4 Cr. Hrs.
Prerequisite: **MATH 128 or equivalent with grade of 2.0 or better.**
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, and mathematics of finance are the topics included in this course.

MATH 145 Calculus for Business and Social Science (4-0) 4 Cr. Hrs.
Prerequisite: **MATH 128 or equivalent with grade of 2.0 or better.**
The main topics of this course are differentiation of algebraic, exponential and logarithmic functions, curve sketching, optimization, constrained optimization, integration, introduction to functions of several variables, and applications.

MATH 150 Calculus with Analytic Geometry 1 (5-0) 5 Cr. Hrs.
Prerequisite: **MATH 129 or equivalent with grade of 2.0 or better.**
This course is 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, and applications are the topics covered in this course.

MATH 151 Calculus with Analytic Geometry 2 (5-0) 5 Cr. Hrs.
Prerequisite: **MATH 150 or equivalent with grade for 2.0 or better.**
Note: Math 151 may be taken concurrently with Math 230. This course includes the study of derivatives and integrals of transcendental functions, techniques of integration, indeterminate forms, improper integrals, infinite series, numerical methods, conics, polar coordinates, and applications.

MATH 230 Linear Algebra (4-0) 4 Cr. Hrs.
Prerequisite: **MATH 150 or equivalent with grade of 2.0 or better.**
Topics covered in this course include systems of linear equations, matrices, determinants, Euclidean vector spaces, general vector spaces, inner product spaces, eigenvalues and eigenvectors, diagonalization, linear transformations, and applications.

MATH 240 Calculus with Analytic Geometry 3 (5-0) 5 Cr. Hrs.
Prerequisite: **MATH 151 or equivalent with grade of 2.0 or better.**
Vectors in the plane, vectors in three-space, solid analytic geometry, partial derivatives, line integrals, multiple integrals and applications are the topics covered in this course.

MATH 252 Differential Equations (5-0) 5 Cr. Hrs.
Prerequisite: **MATH 240 or equivalent with grade of 2.0 or better.**
Topics covered in this course include first order differential equations, second order linear equations, series solutions of second order linear equations, higher order linear equations, and Laplace transform, systems of first order linear equations, numerical methods and qualitative theory of differential equations.

MEDICAL ASSISTING

Associate Dean: Robert F. Pearce, MPA
Coordinator/Instructor: Professor Patricia Rubio, MSA
Instructors: Adjunct Faculty

MA 110 Phlebotomy (4-0) 4 Cr. Hrs.
Prerequisite: **BIOL 105, HIT 104 and Verification of Hepatitis B form submitted to Health Service.**
This course teaches basic technical skills necessary for a phlebotomist to draw blood in various healthcare 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 healthcare setting.

MA 134 Medical Insurance Coding (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
Corequisite: **HIT 104.**
This course introduces the student to insurance coding guidelines developed for use with the International Classification of Diseases, (ICD-9-CM) and Current Procedural Terminology, (CPT-4). 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.

MA 140 Medical Office Procedures (3-0) 3 Cr. Hrs.
Prerequisite: **Typing proficiency required.**
This course introduces the student to 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.

MA 155 Medical Insurance Billing (3-0) 3 Cr. Hrs.
Prerequisite: **MA 134 and HIT 104.**
This course introduces the student to the various types of medical insurance including Blue Cross/Blue Shield, Medicare, Medicaid, Workers' Compensation and other third-party payers. The student will perform the tasks necessary to process claim forms for each type of medical insurance. Manual and computerized billing methodologies are included.

MA 174 Medical Laboratory Techniques (4-0) 4 Cr. Hrs.
Prerequisite: **BIOL 105, HIT 104, MA 140 and MA 110.**
This course will provide an opportunity for the student to practice techniques to perform 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.

MA 180 Medical Office Clinical Procedures (3-3) 4 Cr. Hrs.
Prerequisite: **BIOL 105, HIT 104 and MA 140.**
This course is designed to introduce the student to examination techniques, injections, minor surgery, medications and pharmacology, sterilization procedures, and autoclave.

MA 195 Office Practicum (1-15) 3 Cr. Hrs.
Prerequisite: **Successful completion of all academic and medical assisting courses.**
The student will participate in an externship under the direction of a physician and a medical assistant. The externship is structured to provide experiences in performing administrative and clinical procedures in a healthcare setting. The student will interact with other healthcare professionals in facilities such as the physician's office, ambulatory care center, clinic and hospital.

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.
Prerequisite: **Keyboarding skill of 50 words per minute recommended.**
This course provides an introduction to the role of the medical transcriptionist in the healthcare setting. The student will acquire knowledge of the types of forms and content utilized and required in medical transcription. The content of the course will also include the legalities and standards that apply to medical transcription.

MT 108 Physician Office Transcription (2-0) 2 Cr. Hrs.
Prerequisite: **HIT 104 and BIOL 105.**
This course 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.

MT 157 Medical Transcription Seminar (1-0) 1 Cr. Hr.
Prerequisite: **HIT 104, MT 106, MT 108 and BIOL 105.**
This course will provide an overview of the law as it is applied to healthcare professionals and patients. Students will also explore the 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.

MT 158 Hospital Medical Transcription 1 (3-4) 5 Cr. Hrs.
Prerequisite: **HIT 104, MT 106, MT 108 and BIOL 105.**
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 utilize the English language and communication skills during transcription practice.

MT 159 Hospital Medical Transcription 2(3-4) 5 Cr. Hrs.
Prerequisite: **MT 157.**
This course will describe and illustrate various reports that the medical transcriptionist will be expected to transcribe. The student will use production word processing 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.

METALLURGY AND MATERIALS SCIENCE

Associate Dean: Bruce Sweet, MA
Instructors: Professor Charles Gibbons, CSIT
Adjunct Faculty

MET 102 Introduction to Materials Science (2-2) 3 Cr. Hrs.
Prerequisite: **None.**
A basic introduction to Materials Science using the principles of science to study the nature of metallic and non-metallic materials used in most industries. Topics covered in the course include atomic structure, elements, states of matter, bonding, crystallization, mechanical, chemical, and physical properties of metallic, polymeric, ceramic, and composite materials.

MET 114 Engineering Materials (3-0) 3 Cr. Hrs.
Prerequisite: **MET 102.**
A course in materials applications covering ferrous and non-ferrous alloys, powdered metals, ceramics and glass, rubber and polymers. Each material is examined with respect to their advantages and disadvantages, methods of fabrication and joining, and specific industrial applications, both current and future.

MET 120 Hazardous Materials Management (2-0) 2 Cr. Hrs.
Prerequisite: **None.**
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 covered in the course 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.

MET 125 Cooperative Metallurgical Experience (0-40) 4 Cr. Hrs.
Prerequisite: **MET 102 and MET 114 or consent of department. (The above are minimum requirements for participating in cooperative learning experience. Additional prerequisites may be required by the employer.)**
Students will receive 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.

MET 152 Structure and Properties Laboratory (2-2) 3 Cr. Hrs.
Prerequisite: **MET 114 (may be concurrent).**
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 covered in the course include optical systems, sectioning and polishing, mounting techniques, etching, specialized measurement technology and photo-microscopy.

MET 160 Composite Materials (2-2) 3 Cr. Hrs.
Prerequisite: **None.**
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 covered in the course include the nature of polymeric materials, reinforcements, coatings and adhesives. Industrial forming techniques and applications are also examined.

MET 211 Physical Metallurgy-Structures (3-1) 3 Cr. Hrs.
Prerequisite: **MET 114.**
An interpretative study incorporating phase equalibria, 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 non-ferrous metal is emphasized.

MET 215 Mechanical Properties of Metals (3-1) 3 Cr. Hrs.
Prerequisite: **MET 114.**
Students will explore basic elastic and plastic behavior, deformation, dislocations; brittle, ductile and transitional fractures; fatigue, tensile, hardness, impact, and stress testing. Course will include 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.

MET 217 Computer Applications in Materials Science (2-2) 3 Cr. Hrs.
Prerequisite: **MET 114 or consent of department and computer experience highly recommended.**
An experience-oriented course in data acquisition, specifically designed for students interested in materials laboratory computer applications. Topics covered in the course 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.

MET 248 Electron Microscopy and Image Analysis (2-2) 3 Cr. Hrs.
Prerequisite: **MET 152, MET 211 and MET 217 or consent of department.**
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 covered in the course include microscopy systems and components, applications in fractrography and quantifiable measurements used in process and surface failure analysis, materials characterization, and product development studies. The course is recommended for students specifically interested in specialized laboratory practices.

MET 271 Corrosion and Corrosion Analysis (2-2) 4 Cr. Hrs.
Prerequisite: **MET 211 or MET 215 or consent of department.**
Corrosive processes, including electrochemical reactions in metals and the chemical degradation of polymeric materials are emphasized. Topics covered in the course include basic electrochemical reactions, nature of corrosive environments, types of corrosion, laboratory corrosion testing, data analysis, interaction with mechanical behavior and fabricated dissimilar materials.

MET 280 Special Problems in Materials Science (3-2) 4 Cr. Hrs.
Prerequisite: **MET 211 or MET 215 or consent of instructor.**
Students having adequate backgrounds in this discipline and/or catalog specified prerequisites are encouraged to select a topic associated with metallic or non-metallic 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 is encouraged. Likewise, faculty-directed study will be provided.

MUSIC

Assistant Dean: Cheryl D. Hawkins, MS
Instructors: Professor Donald Morelock, MM
Associate Professor James Nissen, DMA
Assistant Professor 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 technology 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 104 Basic Materials in Music Theory (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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.

MUSIC 105 Music Appreciation (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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.

MUSIC 107 Music for Elementary Teachers (3-2) 4 Cr. Hrs.
Prerequisite: **None.**
This course will provide functional knowledge and skills to handle music requirements in the elementary grades. The course is recommended for elementary education majors and will require off-campus classroom visitations.

MUSIC 109 The Architecture of Music (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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.

MUSIC 114 Voice Class 1 Elements—Beginners (2-0) 2 Cr. Hrs.
Prerequisite: **None.**
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.

MUSIC 116 Voice Class 2 Cultivation—Intermediate (2-0) 2 Cr. Hrs.
Prerequisite: **Consent of instructor.**
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.

MUSIC 117 Choir (2-1) 2 Cr. Hrs.
MUSIC 118 ***Prerequisite:*** **Audition.**
Students will explore the principles of choral singing and musicianship. Music of all styles and periods will be included. Choir is an elective for all students, regardless of major field.

MUSIC 121 Class Piano 1 (2-0) 2 Cr. Hrs.
Prerequisite: **None.**
Group piano instruction designed for students with little or no formal piano training. Instruction is given on both electronic and acoustic instruments.

MUSIC 122 Class Piano 2 (2-0) 2 Cr. Hrs.
Prerequisite: **Music 121 or equivalent.**
This course is a continuation of MUSIC 121. Group piano instruction designed for students with little or no formal piano training will be the format of this course. Instruction is given on both electronic and acoustic instruments.

MUSIC 123 Keyboard Skills for Recording Engineers (1-0) 1 Cr. Hr.
Prerequisite: **MUSIC 121.**
Students will apply knowledge gained in MUSIC 121 to use with electronic keyboard instruments used in the modern recording studio. Emphasis is on the operation of modern electronic keyboard instruments, MIDI, and developing the fundamental musical skills used in contemporary music production. These skills will be applied to individual projects in the laboratory.

MUSIC 124 Chamber Singers (1-1) 1 Cr. Hr.
MUSIC 127 ***Prerequisite:*** **Audition.**
A select ensemble that performs madrigals and other chamber music for events on and off campus. Open to all students regardless of major.

MUSIC 130 Ear Training for Recording Engineers (2-0) 2 Cr. Hrs.
Prerequisite: **None.**
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 multi-track mixing is emphasized and developed through hands-on assignments using a variety of professional mixing systems.

MUSIC 131 Applied Music—Piano (1-1) 2 Cr. Hrs.
Prerequisite: **None.**
Private instruction in piano is the format for this course. Six hours minimum weekly practice, one private lesson and one studio class each week are required. Performance examinations will be held at the end of each semester. Course is for music and non-music majors.

MUSIC 132 Applied Music—Piano (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 131.**
Private instruction in piano is the format for this course. Six hours minimum weekly practice, one private lesson and one studio class each week are required. Performance examinations will be held at the end of each semester. Course is for music and non-music majors.

MUSIC 133 Applied Music—Voice (1-1) 2 Cr. Hrs.
Prerequisite: **None.**
Private instruction in voice will be the format of this course. Six hours minimum weekly practice, one private lesson each week plus weekly symposium is required. Performance examinations will be held at the end of each semester. Course will provide performance opportunities at weekly symposium. Course is for music and non-music majors.

MUSIC 134 Applied Music—Voice (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 133.**
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.

MUSIC 135 Applied Music—Instrumental (1-1) 2 Cr. Hrs.
Prerequisite: **None.**
Private instruction in all instruments of the band and orchestra, including classical guitar will be the format of this course. Six hours minimum weekly practice, one private lesson each week plus weekly symposium are required. Performance examinations will be held at the end of each semester. Course will provide performance opportunities at weekly symposium. Course is for music and non-music majors.

MUSIC 136 Applied Music—Instrumental (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 135.**
Private instruction in all instruments of the band and orchestra, including classical guitar will be the format of this course. Six hours minimum weekly practice, one private lesson each week plus weekly symposium are required. Performance examinations will be held at the end of each semester. Course will provide performance opportunities at weekly symposium. Course is for music and non-music majors.

MUSIC 137 Sight Singing and Ear Training 1 (2-0) 2 Cr. Hrs.
Prerequisite: **None.**
Sight singing—melodies outlining the intervals of I and V chords of first and second inversion and non-harmonic tones will be the format of this course and will include simple rhythmic, melodic, and harmonic dictations.

MUSIC 138 Sight Singing and Ear Training 2 (2-0) 2 Cr. Hrs.
Prerequisite: **MUSIC 137.**
Sight singing—melodies outlining intervals of all triads and dominant seventh chords will be the format for this course. Harmonic, melodic, rhythmic dictation—altered non-harmonic tones, secondary dominants, modulation to closely related keys, borrowed altered harmonies will be explored.

MUSIC 140 Jazz Lab Band—Improvisation 1 (2-1) 2 Cr. Hrs.
Prerequisite: **None.**
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. Course may be used as an elective credit in humanities.

MUSIC 141 Wind Ensemble 1 (2-1) 2 Cr. Hrs.
Prerequisite: **None.**
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. Course may be used as an elective credit in humanities.

MUSIC 142 Jazz Band 1 (2-1) 2 Cr. Hrs.
Prerequisite: **None.**
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. Course may be used as elective credit in humanities.

MUSIC 143 Practice Teaching and Practicum in Piano Teaching 1 (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 142.**
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.

MUSIC 144 Practice Teaching and Practicum in Piano Teaching 2 (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 143.**
Piano teachers will learn to create and present effective lesson plans that include repertoire, theory concepts, rhythm, tone, touch, and hand position through the second semester of piano study.

MUSIC 149 Popular Music Culture in America (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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.

MUSIC 153 Music Theory 1 (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
Harmonic progression; chords of 1st and 2nd inversion will be the format of this course. Phrase structure and cadences will be introduced. Technique of harmonization and non-harmonic tones will be explored.

MUSIC 154 Music Theory 2 (3-0) 3 Cr. Hrs.
Prerequisite: **MUSIC 153.**
Students will be introduced to 7th chords, altered non-harmonic tones, secondary dominants, modulation to closely related keys, borrowed and altered chords; original composition.

MUSIC 155 History of Broadway (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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.

MUSIC 164 Music History 1 (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course will be a detailed survey of literature, history, and musical materials of the Baroque and Classical eras.

MUSIC 165 Music History 2 (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
Detailed survey of history and literature of music of the Romantic and 20th Century eras.

MUSIC 168 Synthesizer Ensemble 1 (2-1) 3 Cr. Hrs.
Prerequisite: **MUSIC 121 or consent of instructor.**
This group performs original music and transcribed literature of many genres on electronic musical instruments. Regular rehearsals and performances are scheduled.

MUSIC 169 Synthesizer Ensemble 2 (2-1) 3 Cr. Hrs.
Prerequisite: **MUSIC 121 or consent of instructor.**
This group performs original music and transcribed literature of many genres on electronic musical instruments. Regular rehearsals and performances are scheduled.

MUSIC 171 Music Technology (3-0) 3 Cr. Hrs.
Prerequisite: **MUSIC 104 and MUSIC 121 or equivalent.**
This course is an introduction to the fundamentals of music-making using MIDI/computer hardware and software. The 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.

MUSIC 172 Electronic Music—Intermediate MIDI/Sampling and Sound Editing (3-0) 3 Cr. Hrs.
Prerequisite: **MUSIC 171.**
This course will deal with advanced functions of MIDI sequencing with the assistance of MIDI hardware and a desktop computer.

MUSIC 173 Basic Studio Techniques 1 (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
Fundamentals of the recording arts, including basic audio and acoustical theory, recording consoles, tape recorders, microphone design and technique, speakers, and signal processing will be introduced in this course.

MUSIC 174 Basic Studio Techniques 2 (3-0) 3 Cr. Hrs.
Prerequisite: **MUSIC 173.**
Multi-track 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.

MUSIC 201 Keyboard Skills for Piano Teachers 1 (2-0) 2 Cr. Hrs.
Prerequisite: **Consent of Director of Piano Department.**
This course is designed to give piano teachers the necessary keyboard skills for teaching beginning through early intermediate level students. The course 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.

MUSIC 202 Keyboard Skills for Piano Teachers 2 (2-0) 2 Cr. Hrs.
Prerequisite: **MUSIC 201.**
This course is designed to give piano teachers the necessary keyboard skills for teaching intermediate through late intermediate level students. The course 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.

MUSIC 214 Voice Class 3 Performance—Advanced (2-0) 2 Cr. Hrs.
Prerequisite: **Consent of instructor.**
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.

MUSIC 216 Voice Class 4 Performance—Advanced (2-0) 2 Cr. Hrs.
Prerequisite: **Consent of Instructor.**
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.

MUSIC 217 Choir (2-1) 2 Cr. Hrs.
MUSIC 218 ***Prerequisite:*** **Audition.**
Students will explore the principles of choral singing and musicianship. Music of all styles and periods will be included. Choir is an elective for all students, regardless of major field.

MUSIC 224 Chamber Singers (1-1) 1 Cr. Hr.
MUSIC 227 ***Prerequisite:*** **Audition.**
A select ensemble that performs madrigals and other chamber music for events on and off campus. Open to all students regardless of major.

MUSIC 228 Sight Singing and Ear Training 3 (0-1) 1 Cr. Hr.
Prerequisite: **MUSIC 138**
Corequisite: **MUSIC 250**
Sight singing - melodies in all clefs outlining intervals of all triads, ninths, elevenths, thirteenths, melodic chromatici will be the format of this course.. Harmonic, melodic, rhythmic dictation—chromatic mediants, modulation to foreign keys will be explored.

MUSIC 231 Applied Music—Piano (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 132.**
Private instruction in piano is the format for this course. Six hours minimum weekly practice, one private lesson and one studio class each week are required. Performance examinations will be held at the end of each semester. Course is for music and non-music majors.

MUSIC 232 Applied Music—Piano (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 231.**
Private instruction in piano is the format for this course. Six hours minimum weekly practice, one private lesson and one studio class each week are required. Performance examinations will be held at the end of each semester. Course is for music and non-music majors.

MUSIC 233 Applied Music—Voice (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 134.**
Private instruction in voice will be the format of this course. Six hours minimum weekly practice, one private lesson each week plus weekly symposium is required. Performance examinations will be held at the end of each semester. Course will provide performance opportunities at weekly symposium. Course is for music and non-music majors.

MUSIC 234 Applied Music—Voice (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 233.**
Private instruction in voice will be the format of this course. Six hours minimum weekly practice, one private lesson each week plus weekly symposium is required. Performance examinations will be held at the end of each semester. Course will provide performance opportunities at weekly symposium. Course is for music and non-music majors.

MUSIC 235 Applied Music—Instrumental (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 136.**
Private instruction in all instruments of the band and orchestra, including classical guitar will be the format of this course. Six hours minimum weekly practice, one private lesson each week plus weekly symposium is required. Performance examinations will be held at the end of each semester. Course will provide performance opportunities at weekly symposium. Course is for music and non-music majors.

MUSIC 236 Applied Music—Instrumental (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 235.**
Private instruction in all instruments of the band and orchestra, including classical guitar will be the format of this course. Six hours minimum weekly practice, one private lesson each week plus weekly symposium is required. Performance examinations will be held at the end of each semester. Course will provide performance opportunities at weekly symposium. Course is for music and non-music majors.

MUSIC 240 Jazz Lab Band—Improvisation 2 (2-1) 2 Cr. Hrs.
Prerequisite: **None.**
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. Course may be used as an elective credit in humanities.

MUSIC 241 Wind Ensemble 2 (2-1) 2 Cr. Hrs.
Prerequisite: **None.**
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. Course may be used as an elective credit in humanities.

MUSIC 242 Jazz Band 2 (2-1) 2 Cr. Hrs.
Prerequisite: **None.**
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. Course may be used as an elective credit in humanities.

MUSIC 243 Practice Teaching and Practicum in Piano Teaching 3 (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 144 .**
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.

MUSIC 244 Practice Teaching and Practicum in Piano Teaching 4 (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 243.**
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.

MUSIC 245 Wind Ensemble 3 (2-1) 2 Cr. Hrs.
Prerequisite: **None.**
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. Course may be used as an elective credit in humanities.

MUSIC 246 Wind Ensemble 4 (2-1) 2 Cr. Hrs.
Prerequisite: **None.**
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. Course may be used as an elective credit in humanities.

MUSIC 247 Piano Teaching Techniques and Materials 1 (3-0) 3 Cr. Hrs.
Prerequisite: **Consent of Director of Piano Department.**
This course is designed for teachers enrolled in the Piano Teaching Program.

MUSIC 248 Jazz Band 3 (2-1) 2 Cr. Hrs.
Prerequisite: **None.**
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. Course may be used as elective credit in humanities.

MUSIC 249 Jazz Band 4 (2-1) 2 Cr. Hrs.
Prerequisite: **None.**
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. Course may be used as elective credit in humanities.

MUSIC 250 Music Theory 3 (3-0) 3 Cr. Hrs.
Prerequisite: **MUSIC 154.**
Chromatic mediants and modulation to foreign keys will be the format of this course. Ninth, 11th, and 13th chords will be explored. In addition, analysis, original compositions in basic homophonic forms and traditional harmony will be covered.

MUSIC 252 Music Theory 4 (4-0) 4 Cr. Hrs.
Prerequisite: **MUSIC 250.**
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 utilizing the 12-tone system will be explored.

MUSIC 257 Piano Teaching Techniques and Materials 2 (3-0) 3 Cr. Hrs.
Prerequisite: **Consent of Director of Piano Department.**
This course is designed for teachers enrolled in the Piano Teaching Program.

MUSIC 258 Jazz Lab Band—Improvisation 3 (2-1) 2 Cr. Hrs.
Prerequisite: **None.**
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. Course may be used as an elective credit in humanities.

MUSIC 259 Jazz Lab Band—Improvisation 4 (2-1) 2 Cr. Hrs.
Prerequisite: **None.**
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. Course may be used as an elective credit in humanities.

MUSIC 268 Synthesizer Ensemble 3 (2-1) 3 Cr. Hrs.
Prerequisite: **MUSIC 121 or consent of the instructor.**
This group performs original music and transcribed literature of many genres on electronic musical instruments. Regular rehearsals and performances are scheduled.

MUSIC 269 Synthesizer Ensemble 4 (2-1) 3 Cr. Hrs.
Prerequisite: **MUSIC 121 or consent of the instructor.**
This group performs original music and transcribed literature of many genres on electronic musical instruments. Regular rehearsals and performances are scheduled.

MUSIC 273 Advanced Studio Techniques 1 (3-0) 3 Cr. Hrs.
Prerequisite: **MUSIC 130 and MUSIC 174.**
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.

MUSIC 274 Advanced Studio Techniques 2 (3-0) 3 Cr. Hrs.
Prerequisite **None.**
Corequisite: **MUSIC 273.**
This course is a continuation of MUSIC 274 and recording in the digital domain. Areas of focus will include data storage, analog to digital conversion, editing, time code, and synchronization.

MUSIC 282 Applied Music—Piano (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 232.**
Private instruction in piano is the format for this course. Six hours minimum weekly practice, one private lesson and one studio class each week are required. Performance examinations will be held at the end of each semester. Course is for music and non-music majors.

MUSIC 283 Applied Music—Piano (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 282.**
Private instruction in piano is the format for this course. Six hours minimum weekly practice, one private lesson and one studio class each week are required. Performance examinations will be held at the end of each semester. Course is for music and non-music majors.

MUSIC 284 Applied Music—Piano (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 283.**
Private instruction in piano is the format for this course. Six hours minimum weekly practice, one private lesson and one studio class each week are required. Performance examinations will be held at the end of each semester. Course is for music and non-music majors.

MUSIC 285 Applied Music—Piano (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 284.**
Private instruction in piano is the format for this course. Six hours minimum weekly practice, one private lesson and one studio class each week are required. Performance examinations will be held at the end of each semester. Course is for music and non-music majors.

MUSIC 286 Applied Music—Voice (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 234.**
Private instruction in voice will be the format of this course. Six hours minimum weekly practice, one private lesson each week plus weekly symposium is required. Performance examinations will be held at the end of each semester. Course will provide performance opportunities at weekly symposium. Course is for music and non-music majors.

MUSIC 287 Applied Music—Voice (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 286.**
Private instruction in voice will be the format of this course. Six hours minimum weekly practice, one private lesson each week plus weekly symposium is required. Performance examinations will be held at the end of each semester. Course will provide performance opportunities at weekly symposium. Course is for music and non-music majors.

MUSIC 288 Applied Music—Voice (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 287.**
Private instruction in voice will be the format of this course. Six hours minimum weekly practice, one private lesson each week plus weekly symposium is required. Performance examinations will be held at the end of each semester. Course will provide performance opportunities at weekly symposium. Course is for music and non-music majors.

MUSIC 289 Applied Music—Voice (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 288.**
Private instruction in voice will be the format of this course. Six hours minimum weekly practice, one private lesson each week plus weekly symposium is required. Performance examinations will be held at the end of each semester. Course will provide performance opportunities at weekly symposium. Course is for music and non-music majors.

MUSIC 290 Applied Music Instrumental (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 236.**
Private instruction in all instruments of the band and orchestra, including classical guitar will be the format of this course. Six hours minimum weekly practice, one private lesson each week plus weekly symposium is required. Performance examinations will be held at the end of each semester. Course will provide performance opportunities at weekly symposium. Course is for music and non-music majors.

MUSIC 291 Applied Music Instrumental (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 290.**
Private instruction in all instruments of the band and orchestra, including classical guitar will be the format of this course. Six hours minimum weekly practice, one private lesson each week plus weekly symposium is required. Performance examinations will be held at the end of each semester. Course will provide performance opportunities at weekly symposium. Course is for music and non-music majors.

MUSIC 292 Applied Music Instrumental (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 291.**
Private instruction in all instruments of the band and orchestra, including classical guitar will be the format of this course. Six hours minimum weekly practice, one private lesson each week plus weekly symposium is required. Performance examinations will be held at the end of each semester. Course will provide performance opportunities at weekly symposium. Course is for music and non-music majors.

MUSIC 293 Applied Music Instrumental (1-1) 2 Cr. Hrs.
Prerequisite: **MUSIC 292.**
Private instruction in all instruments of the band and orchestra, including classical guitar will be the format of this course. Six hours minimum weekly practice, one private lesson each week plus weekly symposium is required. Performance examinations will be held at the end of each semester. Course will provide performance opportunities at weekly symposium. Course is for music and non-music majors.

MUSIC 298 Special Music Projects for Honors Studies—
MUSIC 299 Performance/Composition/Research (2-0) 2 Cr. Hrs.
Prerequisite: **Dean's List status (GPA 3.5). MUSIC 154 and two semesters of Applied Voice or Instrumental Music. Student eligibility will be determined during interviews with the instructor.**
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.

NURSING

Associate Dean: Monica Sullivan, MS
Coordinator/Assistant: Kathleen Fordyce, MSN
Instructors: Associate Professor Tamara Campbell, MSN
Associate Professor Sharon Griffin, MSN
Associate Professor Marlynn Marroso, MSN
Associate Professor Nancy Palmer, MSN
Associate Professor Elizabeth Quell, MSN
Associate Professor Deborah Vendittelli, MSN
Assistant Professor Cindy Sheppard, MSN
Adjunct Faculty

NURS 116 Fundamentals of Nursing 1 (2-3) 3 Cr. Hrs.
Prerequisite: **BIOL 050 or high school Biology; CHEM 051 or high school Chemistry; MATH 053 or high school Algebra and consent of department; BIOL 236 with grade of 2.0 or better or BIOL 237 and BIOL 238 with grade of 2.0 or better. BIOL 115 recommended.**
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.

NURS 117 Fundamentals of Nursing 2 (1-6) 3 Cr. Hrs.
Prerequisite: **NURS 116 with grade of 2.0 or better.**
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, gerentological concepts, and ethical-legal considerations to provide nursing care to adult clients in an extended care facility/community setting.

NURS 118 Pharmacology 1 (1-0) 1 Cr. Hr.
Prerequisite: **NURS 116 with grade of 2.0 or better.**
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.

NURS 119 Pharmacology 2 (1-0) 1 Cr. Hr.
Prerequisite: **NURS 117 with grade of 2.0 or better and NURS 118 with grade of 2.0 or better.**
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.

NURS 120 Health Assessment and Adult Medical—Surgical Nursing 1 (2-6) 4 Cr. Hrs.
Prerequisite: **NURS 117 with grade of 2.0 or better and NURS 118 with grade of 2.0 or better and PSYCH 201.**
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.

NURS 121 Adult Medical—Surgical Nursing 2 (2-9) 5 Cr. Hrs.
Prerequisite: **NURS 120 with grade of 2.0 or better.**
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.

NURS 122 Psychiatric Mental Health Nursing (2-6) 4 Cr. Hrs.
Prerequisite: **For students pursuing the ADN program: NURS 121 and PSYCH 209 both with grade of 2.0 or better. 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 BIOL 238 all with grade of 2.5 or better; PSYCH 201; and PSYCH 209.**
This course applies critical thinking skills, nursing process, and psychosocial principles and interventions for mental health clients in acute and community settings.

NURS 130 LPN to RN Transition Course (3-0) 3 Cr. Hrs.
Prerequisite: **NURS 122 with grade of 2.0 or better.**
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.

NURS 211 Nursing Care of Women and Childbearing Families (2-9) 5 Cr. Hrs.
Prerequisite: **For students pursuing the ADN program: NURS 119 and NURS 122 both with grade of 2.0; BIOL 243 with a minimum grade of 2.5. For students pursuing the LPN to ADN 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 and consent of department.**
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.

NURS 212 Nursing Care of Children and Families (2-9) 5 Cr. Hrs.
Prerequisite: **For students pursuing the ADN program: NURS 119 and NURS 122 both with a minimum grade of 2.0; BIOL 243 with a minimum grade of 2.5. For students pursuing the LPN to ADN 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 and consent of the department.**

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.

NURS 213 Adult Medical—Surgical Nursing 3 (2-9) 5 Cr. Hrs.
Prerequisite: **For students pursuing the ADN program: NURS 119 and NURS 122 both with a minimum grade of 2.0 and BIOL 243 with a minimum grade of 2.5. For students pursuing the LPN to ADN program: NURS 130 with a minimum grade of 2.0 and BIOL 243 with a minimum grade of 2.5 and consent of the department.**

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.

NURS 214 Leadership and Nursing Management of Complex Clients (2-9) 5 Cr. Hrs.
Prerequisite: **NURS 211, NURS 212 and NURS 213 all with grade of 2.0 or higher.**

This course includes advanced medical-surgical nursing content and basic principles of leadership and management. Current legal-ethical issues are also 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.

OFFICE INFORMATION SYSTEMS

Associate Dean: Bruce Sweet, MA
Instructor: Professor Patricia Partyka, MEd
Adjunct Faculty

OIS 100 Keyboarding 1 (2-0) 2 Cr. Hrs.
Prerequisite: **None.**
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.

OIS 102 Keyboarding 2 (2-0) 2 Cr. Hrs.
Prerequisite: **OIS 100 Or equivalent.**
This course continues the development of accuracy and speed in keyboarding. Emphasis will be in formatting of various kinds of business correspondence, reports and tables.

OIS 105 Office Communication—Editing Skills (3-0) 3 Cr. Hrs.
Prerequisite: **A skill level of ENG 050 or higher on the placement test; OIS 102 is strongly recommended.**
This course is designed to review and incorporate the principles of grammar, punctuation, vocabulary, spelling, proofreading, and editing of business documents.

OIS 165 Microsoft Word for Windows (3-0) 3 Cr. Hrs.
Prerequisite: **OIS 105 or equivalent.**
This course is designed to provide practical hands-on experience with a current word processing software package for the computer. Current software will be introduced and explained with emphasis in the area of word processing.

OIS 185 Business Presentation 1—Fundamental Concepts (3-0) 3 Cr. Hrs.
Prerequisite: **OIS 165 or equivalent.**
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.

OIS 195 Time and Project Management (1-0) 1 Cr. Hr.
Prerequisite: **None.**
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.

OIS 255 Office Procedures (2-0) 2 Cr. Hrs.
Prerequisite: **OIS 100 or equivalent.**
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.

OIS 260 Office Administration (3-0) 3 Cr. Hrs.
Prerequisite: **OIS 255 recommended.**
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.

OIS 265 Advanced Microsoft Word for Windows (3-0) 3 Cr. Hrs.
Prerequisite: **OIS 165.**
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.

PHILOSOPHY

Assistant Dean: Cheryl D. Hawkins, MS
Instructors: Adjunct Faculty

PHIL 243 An Introduction to Philosophy (3.0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is 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.

PHIL 247 Logic (4-0) 4 Cr. Hrs.
Prerequisite: **None.**
This course is designed to assist the student in distinguishing 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.

PHIL 277 Ethical Problems (3-0) 3 Cr. Hrs.
Prerequisite: **PHIL 243 or equivalent.**
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.

PHYSICAL EDUCATION, HEALTH AND RECREATION

Associate Dean: Monica Sullivan, MS
Instructors: Adjunct Faculty

PE 104 **Physical Fitness and Conditioning (1-1) 2 Cr. Hrs.**
Prerequisite: **None.**
This course stresses vigorous body conditioning through progressive exercises, stretching, weight machine and free weight use. Cardiovascular fitness will be emphasized.

PE 106 **Beginning Swimming (1-1) 2 Cr. Hrs.**
Prerequisite: **None.**
This course is 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 will be introduced.

PE 115 **Aerobic Dance Fitness (1 - 1) 2 Cr. Hrs.**
Prerequisite: **None.**
Instruction in this course will stress the development of an individual's aerobic capacity and cardiovascular endurance through aerobic dance and dance exercise.

PE 116 **Intermediate Swimming (1 - 1) 2 Cr. Hrs.**
Prerequisite: **None.**
This course is for students who can swim two lengths of the pool, stay afloat for three minutes. Course is 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.

PE 121 **First Aid and Personal Safety (2 - 0) 2 Cr. Hrs.**
Prerequisite: **None.**
This course uses lecture-demonstration approach to provide instruction on the prevention of accidents and care of victims with emergency skill training in all procedures. Cardiopulmonary resuscitation (CPR) for infant, child and adult plus use of the Automated External Defibrillator (A.E.D.) will be presented. Certification cards will be awarded to those completing the requirements.

PE 131 **Golf (1-1) 2 Cr. Hrs.**
Prerequisite: **None.**
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.

PE 132 **Beginning Tennis (1-1) 2 Cr. Hrs.**
Prerequisite: **None.**
This course provides students with a basic history of tennis, techniques, fundamental skills, strategy, rules and the opportunity to participate in a competitive situation.

PE 141 **Basketball (1-1) 2 Cr. Hrs.**
Prerequisite: **None.**
This course covers the sports' history, basic techniques, fundamental skills, strategy, rules, and the opportunity to participate in a competitive situation.

PE 153 **Volleyball (1-1) 2 Cr. Hrs.**
Prerequisite: **None.**
This course covers the sport's history, basic techniques, fundamental skills, strategy, rules, and the opportunity to participate in a competitive situation.

PE 157 **Paddleball—Racquetball (1-1) 2 Cr. Hrs.**
Prerequisite: **None.**
This course provides instruction in rules, safety practices, etiquette, strategy and skills of paddleball and racquetball. Tournament play in singles, doubles and cut-throat is included.

PE 164 **Skin and Scuba Diving (1-2) 3 Cr. Hrs.**
Prerequisite: **Beginning swimming or equivalent is required.**
This course will introduce the skills, techniques, safety factors, mechanics, first aid, marine life and environment, medicine and physics of diving and dive organization. Open water certification may be earned. Some advanced techniques are included.

PE 166 **Self Defense (1-1) 2 Cr. Hrs.**
Prerequisite: **A physical examination is recommended.**
This course combines various methods of self-defense with an emphasis on Judo. Related techniques of Jujitsu and Karate will be covered.

PE 194 **Weight Training (1-1) 2 Cr. Hrs.**
Prerequisite: **None.**
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.

PE 202 **Lifestyle Fitness—Wellness (1-1) 2 Cr. Hrs.**
Prerequisite: **None.**
This course will introduce the student, through lecture and exercise, to the various methods and benefits of physical and emotional fitness/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.

PE 240 **Physical Education for Elementary Teachers (2-3) 3 Cr. Hrs.**
Prerequisite: **None.**
Students will receive instruction in the 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.

PHYSICS

Associate Dean: Monica Sullivan, MS
Instructor: Instructor Paul Holody, PhD

PHYS 051 Basic Physics (4-1) 4 Cr. Hrs.
Prerequisite: **One year of high school Algebra or MATH 053.**
This course is designed for students who have had no previous course in physics or need a review of the subject to prepare for college physics. Basic concepts in mechanics, sound, heat, electricity, light and modern physics are explored through lecture demonstrations, interactive activities and laboratory work.

PHYS 104 Introduction to Astronomy (3-2) 4 Cr. Hrs.
Prerequisite: **MATH 053 or one year of high school Algebra.**
This course is designed to introduce the subject of astronomy to students in any curriculum, but not for science majors. A historical perspective is used to discuss current scientific thinking on topics ranging from the motion of the night sky and the solar system to stars, galaxies and cosmology.

PHYS 123 Applied Physics (4-2) 5 Cr. Hrs.
Prerequisite: **MATH 113.**
This course in applied physics is designed for technical, business and applied health programs. Using trigonometry, the traditional topics of kinematics, dynamics, 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. (This course may be used in place of PHYS 051.)

PHYS 181 General Physics (4-2) 4 Cr. Hrs.
Prerequisite: **PHYS 051 or one year of high school Physics or PHYS 123 and MATH 119.**
This first semester course in general physics is designed for pre-professional students. Using algebra and trigonometry, the traditional topics of mechanics, fluids, energy, heat, and sound are explored through lecture demonstrations, interactive activities and laboratory work. This course is not for engineering students or physics majors.

PHYS 182 General Physics (4-2) 4 Cr. Hrs.
Prerequisite: **PHYS 181.**
This second semester course is a continuation of PHYS 181. Using algebra and trigonometry, the more advanced topics of electricity, magnetism, light, and modern physics are explored through lecture demonstrations, interactive activities and laboratory work. This course is not for engineering students or physics majors.

PHYS 211 General Physics (5-2) 5 Cr. Hrs.
Prerequisite: **PHYS 051 or high school physics and MATH 150.**
This first semester, calculus-based course is designed for engineering students and science majors. Traditional topics of kinematics, dynamics, energy, fluids, heat, and sound are investigated through lecture demonstrations, simulations and laboratory work.

PHYS 212 General Physics (5-2) 5 Cr. Hrs.
Prerequisite: **PHYS 211 or grade of 2.0 or better.**
This second semester, calculus-based course is a continuation of PHYS 211. Advanced topics such as electricity, magnetism, light, and modern physics are investigated through lecture demonstration, simulations and laboratory work. This course is designed for engineering students and science majors.

POLITICAL SCIENCE

Assistant Dean: Cheryl D. Hawkins, MS
Instructors: Professor Kent Kirkpatrick, MA
Assistant Professor Alexander Thomson, PhD

POLS 105 Survey of American Government (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is an introductory study of the American political system. Emphasis is placed on historical and contemporary political theories and ideologies as well as on political institutions, parties and interest groups. Students will engage in analysis of decision-makers, power and controversial issues.

POLS 109 State and Local Government (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
The 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 will be covered in this course.

POLS 205 Political Parties (3-0) 3 Cr. Hrs.
Prerequisite: **POLS 105 or POLS 107 or equivalent political experience or consent of instructor.**
This course will examine the organization and functions of modern American political parties. The course includes an analysis of campaigns, conventions, power and participation in politics. A campaign simulation may be utilized.

POLS 207 Comparative Government (3-0) 3 Cr. Hrs.
Prerequisite: **POLS 105 and completion of other social science courses recommended.**
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 will be examined in this course. Major western European countries will be discussed.

POLS 209 International Relations (3-0) 3 Cr. Hrs.
Prerequisite: **POLS 105 and completion of other social science courses recommended.**
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.

PRACTICAL NURSING

Associate Dean Monica Sullivan, MS
Coordinator/Assistant Kathleen Fordyce, MSN
Instructors: Associate Professor Tamara Campbell, MSN
Assistant Professor 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.
Prerequisite: **Consent of department.**
This course includes beginning theory and supervised practice in the fundamental skills necessary to meet the needs of the chronically ill and elderly 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.

PN 112 Nursing Dynamics (4-0) 4 Cr. Hrs.
Prerequisite: **Consent of department.**
This 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.

PN 124 Nursing Adult Patients (7-15) 12 Cr. Hrs.
Prerequisite: **PN 111 with grade of 2.0 or better, PN 112 with grade of 2.0 or better, AHE 101 with grade of 2.0 or better, and BIOL 105 with grade of 2.0 or better.**
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 adults.

PN 125 Mental Health Nursing (3-0) 3 Cr. Hrs.
Prerequisite: **PN 111 with grade of 2.0 or better, PN 112 with grade of 2.0 or better, AHE 101 with grade of 2.0 or better, and BIOL 105 with grade of 2.0 or better.**
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 healthcare team.

PN 126 Maternal and Child Nursing (2.5-7.5) 5 Cr. Hrs.
Prerequisite: **PN 124 with grade of 2.0 or better and PN 125 with grade of 2.0 or better.**
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.

PN 137 Advanced Concepts in Practical Nursing (1.5-4.5) 3 Cr. Hrs.
Prerequisite: **PN 126 with grade of 2.0 or better.**
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.

PSYCHOLOGY

Assistant Dean: Cheryl D. Hawkins, MS
Instructors: Assistant Professor Colleen Pilgrim, PhD
Adjunct Faculty

PSYCH 153 Human Relations (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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.

PSYCH 201 General Psychology (4-0) 4 Cr. Hrs.
Prerequisite: **Recommended twenty six hours of transferable credit or consent of department. Successful completion of a political science course and courses in biology recommended.**
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, perception, learning, intelligence, motivation and emotion, and social relationships will be explored.

PSYCH 205 Psychology of Adjustment (3-0) 3 Cr. Hrs.
Prerequisite: **Twenty-six hours of transferable credit or consent of department.**
Factors and processes involved in the adjustment of the individual to personal and social environment are the main focus of this course. Essentials for the development of an effective and mentally healthy individual are emphasized. Foundations for adjustment, personal lifestyle adjustment, interpersonal relationships, adjustment throughout life and coping with maladjustment are major areas of study.

PSYCH 207 Social Psychology (4-0) 4 Cr. Hrs.
Prerequisite: **PSYCH 201.**
Regarded as a core area in psychology, social psychology examines the influence of social factors on human behavior. Particular topics include aggression, prejudice, group processes, attitude formation, the law, prosocial behavior, interpersonal attraction, and social cognition.

PSYCH 209 Child Psychology (3-0) 3 Cr. Hrs.
Prerequisite: **PSYCH 201.**
This course examines the general characteristics of development, development of social behavior, feelings, emotions, language, growth of understanding and interests, with emphasis upon personality and problems of adjustment.

PSYCH 219 Adult Development (3-0) 3 Cr. Hrs.
Prerequisite: **Twenty-six hours of transferable credit or consent of department. Successful completion of Psych 201 is recommended.**
This course studies adult development and aging. It focuses on the developmental changes related to biological, psychological, and social processes. Coping strategies and intervention techniques will be examined.

QUALITY MANAGEMENT

Associate Dean Bruce Sweet, MA
Instructors: Adjunct Faculty

QM 106 Introduction to Quality Systems (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is an introduction to quality improvement practices in business, technology and service industries. 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.

QM 107 Quality Planning and Team Building (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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, Six Sigma 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.

QM 108 Quality Statistical Methods (3-0) 3 Cr. Hrs.
Prerequisite: **MATH 113.**
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, P, C & U and their application. Topics also include process identification and capability (Cpk) analysis.

QM 112 Six Sigma Methods in Quality Management (3-0) 3 Cr. Hrs.
Prerequisite: **QM 108 or consent of department.**
Managing and facilitating effective quality systems requires a systematic approach to employee commitment. Topics covered in this course 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 Six Sigma.

SOCIOLOGY

Assistant Dean: Cheryl D. Hawkins, MS
Instructor: Associate Professor Josselyn Moore, MA
Adjunct Faculty

SOC 201 Principles of Sociology (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is a survey of the major theoretical perspectives, concepts and methods of sociology. Topics covered in this course include social organization, culture, socialization, stratification systems, social institutions and social change.

SOC 205 Social Problems (3-0) 3 Cr. Hrs.
Prerequisite: **SOC 201.**
Consideration of current social problems, such as family stability, racism, sexism, poverty, crime, urbanization and ecological problems using sociological theory and recent empirical studies will be introduced. Analysis of sociocultural factors underlying these problems and possible solutions will be explored.

SOC 209 Marriage and Family (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
A study of the impact that changes in society have had on gender roles, sexual relationships, marriage and family life. The course considers diversity in family patterns, norms and values. Topics covered in the course include gender roles, sexual behavior, mate selection, problems of marital adjustment, family stability and crisis, divorce and parenting.

SOC 210 Cultural Diversity (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This course is 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.

SOC 220 Urban Sociology (3-0) 3 Cr. Hrs.
Prerequisite: **SOC 201 or ANTH 112 recommended.**
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.

SOC 290 The Individual and Community—An Honors Capstone Course (3-0) 3 Cr. Hrs.
Prerequisite: **HUM 190.**
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.

SPANISH

Assistant Dean: Cheryl D. Hawkins, MS
Instructor: Associate Professor Andrea Nofz, MA
Adjunct Faculty

SPAN 101 Elementary Spanish 1 (4-0) 4 Cr. Hrs.
Prerequisite: **None.**
This course provides the fundamentals of pronunciation, basic grammar structure, and essential vocabulary, with particular emphasis placed on speaking and understanding Spanish. Practice in written Spanish will be given by means of dictation and easy translation.

SPAN 102 Elementary Spanish 2 (4-0) 4 Cr. Hrs.
Prerequisite: **One year of high school Spanish or a grade of 2.0 or better in SPAN 101 or consent of instructor.**
This course is a continuation of SPAN 101 and will continue emphasis on the spoken language and reading of graded materials in Spanish for comprehension without translation. There will be extensive use of Spanish in the classroom.

SPAN 201 Intermediate Spanish 1 (4-0) 4 Cr. Hrs.
Prerequisite: **Two years of high school Spanish or a grade of 2.0 or better in SPAN 102 or consent of instructor.**
This course is a continuation of SPAN 102. The course will include the review and application of essential principles of Spanish grammar structure and training in idiomatic usage through oral and written exercises. The course will also include intensive practice of the spoken language; reading of representative Spanish prose for comprehension; development of ability to read rapidly without translation.

SPAN 202 Intermediate Spanish 2 (4-0) 4 Cr. Hrs.
Prerequisite: **Three years of high school Spanish or a grade of 2.0 or better in SPAN 201 or consent of instructor.**
This course is a continuation of SPAN 201. The course will place emphasis on oral skill, conversation, and reading without translation.

THEATRE

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 27 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.
Prerequisite: **None.**
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.

THEA 120 Theatre Activities(1-0) 1 Cr. Hrs.
Prerequisite: **None.**
Brief introduction to theatre activities, including primarily technical and dramatic production with minimum hours spent working on or in the current production.

THEA 121 Theatre Activities (1-0) 1 Cr. Hr.
Prerequisite: **THEA 120.**
This course is a continuation of THEA 120 and will continue to explore all the elements of theatre: actor, director, playwright, scenery, costumes, makeup, lighting, sound, audience, theatre publicity, theatre management, and critic.

THEA 204 Stage Makeup (2-0) 2 Cr. Hrs.
Prerequisite: **None.**
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.

THEA 207 Stagecraft and Lighting (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
This is a course that investigates the stage designs and lighting theories with a practical application through work on the college production. The course teaches the basic knowledge of set construction, lighting and its equipment, costume construction, makeup techniques, and costume maintenance.

THEA 208 Acting 1 (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
A beginning course in acting to prepare 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 will be introduced. This exercise work is applied to scene work from modern drama.

THEA 209 Acting 2 (3-0) 3 Cr. Hrs.
Prerequisite: **THEA 208 or consent of instructor.**
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 will be taught. The course includes presentation of scenes from classical and modern plays.

THEA 220 Theatre Activities (1-0) 1 Cr. Hr.
Prerequisite: **THEA 121.**
This course is a continuation of THEA 121 and will continue to explore all the elements of theatre: actor, director, playwright, scenery, costumes, makeup, lighting, sound, audience, theatre publicity, theatre management, and critic.

THEA 221 Theatre Activities (1-0) 1 Cr. Hr.
Prerequisite: **THEA 220.**
This course is a continuation of THEA 220 and will continue to explore all the elements of theatre: actor, director, playwright, scenery, costumes, makeup, lighting, sound, audience, theatre publicity, theatre management, and critic.

THEA 231 History of Theatre 1 (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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 will be explored.

THEA 232 History of Theatre 2 (3-0) 3 Cr. Hrs.
Prerequisite: **None.**
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 will be explored.

THEA 241 Oral Interpretation of Literature (3-0) 3 Cr. Hrs.
Prerequisite: **THEA 208 and COMA 103.**
This course is designed to give students an understanding of Oral Interpretation of Literature through a two-fold 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.

WELDING

Associate Dean: Bruce Sweet, MA
Instructor: Assistant Rodney Johnson, CWE/CAWI
Adjunct Faculty

WELD 108 Shop Mathematics (2-0) 2 Cr. Hrs.
Prerequisite: **None.**
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.

WELD 109 Algebra (2-0) 2 Cr. Hrs.
Prerequisite: **WELD 108 or equivalent.**
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.

WELD 113 Shielded Metallic Arc Welding (S.M.A.W.) (2-2) 3 Cr. Hrs.
Prerequisite: **None.**
Theory and fundamentals of oxy/fuel cutting, welding, soldering, brazing, chemical bonding, resistance and shielded metallic arc welding, joining and fabricating, and welding metallurgy will be explored. Emphasis will be on basic welding skills and welding metallurgy, and the establishment of sound work habits. The course is designed to provide a foundation for more advanced courses.

WELD 115 Gas Metallic Arc Welding (G.M.A.W. or M.I.G.) (2-2) 3 Cr. Hrs.
Prerequisite: **WELD 113 or consent of the department.**
Theory and fundamentals of gas metallic arc welding, commonly referred to as M.I.G. welding, will be explored. This method of fusion of metals is widely used and is the fastest growing segment of the metal working industry. Emphasis will be on basic skill development and the establishment of sound work habits. The course is designed to provide entry level employability and a solid foundation for more advanced courses.

WELD 118 Adhesive Joining Technology (1-3) 4 Cr. Hrs.
Prerequisite: **WELD 113 and MET 114 or consent of department.**
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 will be compared to general mechanical joining techniques.

WELD 119 Gas Tungsten Inert Arc Welding (G.T.A.W. or T.I.G.) (2-2) 3 Cr. Hrs.
Prerequisite: **WELD 113 or consent of the department.**
Theory and fundamentals of gas tungsten arc welding (G.T.A.W.) will be explored. 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. The course is designed to provide entry level employability and solid foundation for more advanced courses.

WELD 120 Advanced Processes Stick Electrode and M.I.G. Welding (2-2) 3 Cr. Hrs.
Prerequisite: **WELD 115 or consent of the department.**
The student will gain additional knowledge and experience in both 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, pipe welding on heavy sections. Material will be formed and fabricated using power and hand operated tools and equipment. Student will design, cost estimate, procure materials and fabricate a student project.

WELD 130 Advanced Processes—Gas Tungsten, Ceramic and Polymer Welding (2-2) 3 Cr. Hrs.
Prerequisite: **WELD 119 or consent of department.**
This 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.

WELD 205 Welder's Print Reading (1-1) 2 Cr. Hrs.
Prerequisite: **WELD 120.**
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.

WELD 206 Welding Inspection and Qualification (1-1) 2 Cr. Hrs.
Prerequisite: **WELD 205.**
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.

WELD 223 Fabrication (2-4) 4 Cr. Hrs.
Prerequisite: **WELD 120 and WELD 130 or consent of department.**
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.

WELD 262 Welding Metallurgy (1-2) 3 Cr. Hrs.
Prerequisite: **None.**
Welding metallurgy includes the influence of alloy composition, filler materials, fluxes and thermal interactions on the structure and properties of metals. Topics covered in the course will include the chemical, mechanical, and physical properties of metals, mechanical behavior, microstructure and post-weld heat treating.

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 (2-2) 3 Cr. Hrs.
Prerequisite: **WELD 113 or extensive welding experience.**

WELD 211 Preparation for Welder Certification in Gas Metallic Arc Welding (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 the department.**

WELD 213 Preparation for Welder Certification in S.A.W. (2-2) 3 Cr. Hrs.
Prerequisite: **WELD 130 or consent of the department.**

WELD 214 Preparation for Welder Certification in Pipe Welding (2-2) 3 Cr. Hrs.
Prerequisite: **WELD 130 or consent of the 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

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

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 1995
Director of Media/
Instructional Support Services
AS Schoolcraft College

HAWKINS, CHERYL D. 1996
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

MOSLEY, REGINA 2005
Director of Financial Aid
BS University of Michigan – Flint
MS Central Michigan 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

PIOTROWSKI, JOHN 1992
Director of Technical Programming
AAS Schoolcraft College

POLKOWSKI, JAMES 1986
Executive Director of Business Services and
Risk Management
BS Wayne State University

SANDERS, KIMBERLY 2004
Registrar—Director of Enrollment Services
BS Lawrence Technological University
MS Walsh College

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 Businesss
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
MS Walsh College

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
Development Center
AA Bay de Noc Community College
BS and MS Central Michigan University

ZYLKA, SHERYL 1982
Associate Dean
Continuing Education Services
AS Schoolcraft College
BS University of Michigan
MA Eastern Michigan University

Full-Time Faculty

ABBAS, MOHAMMED 1991
Professor, Biology
BS Baghdad University
MS Purdue University
PhD Wayne State University

ADDI, OMAR, 1990
Professor, English
BA University of Mohamed V
MA State University of New York

ANDERSON, KATHERINE 2001
Assistant Professor, Mathematics
BS Northern Michigan University
MS Michigan State University
BA and MA Wayne State University

ARSZNOV, JANET M. 1996
Associate Professor, Mathematics
BS and MA University of Michigan
MA Eastern Michigan University

AUSTIN, HOLLY 2004
Instructor, Nursing
BS Northern Michigan University
MSN 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
Professor, Mathematics
BA and MA Eastern Michigan University

BEARDEN, LOIS J. 1990
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

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

CHAUDHERY, SUMITA 1968
Professor, English
BA Howard University
MA Howard University
PhD University of 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
Professor, CAD/Drafting
BS, GMI, Engineering and
Management Institute
MS University of Michigan
Professional Engineer

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

GAWRONSKI, KEVIN P. 1982
Professor, Culinary Arts
AAS Schoolcraft College
Certified Master Chef
American Culinary Federation

GIBBONS II, CHARLES 1993
Professor, Metallurgy
AAS Wayne State University
Certified Senior Industrial Technologist

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
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Certified Master Chef
American Culinary Federation

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

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
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

LAJOY, MARY B. 2001
Counselor, Assistant Professor
BS Western Michigan University
MA Eastern Michigan University

MAHESHWARI, ARCHANA 2002
Assistant Professor, English
BA and MA Osmania University
MA Wayne State University

MARROSO, MARLYNN J. 1998
Associate Professor, Nursing
AAS Henry Ford Community College
BSN University of Michigan
MSN Wayne State University

MCNUTT, CAROLINE H. 2000
Assistant Professor, Biology
BS, MS University of Western Ontario

MCPHERSON, DORIS 1992
Professor, Computer Information Systems
BS, MA and Specialist
Eastern Michigan University
EdD Nova University

MEHALL, MICHAEL J. 1998
Associate 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

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
Associate Professor, Spanish
BA and MA Michigan State University

NUFFER, ROY A. 1987
Librarian, Professor
BA and MSLS Wayne State University

O'CONNELL, DIANE 1990
Professor, Geography
BA College of William and Mary
MS Eastern Michigan University

O'CONNOR, THOMAS A. 1990
Professor, Biology
BA and MS Purdue University
PhD University of Washington

OLSON, SARAH M. 2000
Associate Professor, Art
BAEd, BFA, MA University of Michigan

ORICK, MICHAEL 1993
Professor, Biology
BA University of Michigan, Dearborn
MS Eastern Michigan University

PALM, MARY ALICE 1993
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

PRICER, WAYNE F. 1994
Librarian, Associate Professor
ALA Oakland Community College
BA Madonna University
MSLS Wayne State University

QUELL, ELIZABETH 1991
Associate Professvor, 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. 1981
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

SANTIAGO, RODOLFO 2002
Instructor, Computer Information Systems
BS University of the Philippines
MBA University of Detroit

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

SCHUETT, FAYE 1992
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
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 2004
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, PhD 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

WALDYKE, MICHAEL J. 2001
Assistant Professor, Chemistry
BS Calvin College
MS University of California, Berkley

WALE, JERRY C. 1973
Professor, Computer Information
Systems/Electronics Technology
BSEE Lawrence Institute of Technology
MSEE University of Detroit

WILLIAMS, LARRY G. 1969
Professor, Mathematics
BS and MA Bowling Green State University

WROBLE, STEPHEN A. 1991
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
MS Cappela University

Support Staff

ADAMS, LISA 2002
Primary Caregiver

ADAMS, SUSAN 1991
Help Support Specialist

ALLEN, ANNE 1991
Primary Caregiver

ALTESLEBEN, MICHAEL 2004
Utility II

ANCHOR, ELIZABETH 1997
Secretary III

ANDERSEN, GERALDINE 1997
Counseling Office Assistant

ANDERSON, BRUCE 1999
Electronic Technician

ANTIEAU, DAN 1998
Public Safety Education Coordinator

APPELLE, APRIL 2004
Utility II

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

BROWN, BERNICE 1993
Secretary IV

BROWN, CATHERINE 2001
Secretary III

BROWN, DAVID 1997
Media Technician

BROWN, KATHY 1997
Coordinator-Instructional Services

BROWN, PAUL 1983
General Maintenance

BUREK, NORMA 1979
Coordinator-Computer Operations

BUTTIGIEG, KRISTEN 2004
Assessment and Research Coordinator

CAPPS, RACHEL 2005
Financial Aid Assistant

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, AARON 2004
Executive Chef

COOK, JENNIFER 1997
Utility II

COOLEY, MARGOT 1997
Secretary IV

COUTTS, ROGER 1995
Network Support Specialist

CROSS, VICKI 1994
Utility II

DANI, BRENDA 1994
Lead Account Manager

DANI, DEBORAH 1992
Human Resources Technician

DIXON, SHIRLEY 1989
Research Coordinator

DORSEY, JUANITA 1979
Secretary III

DOUGLAS, JANET 2000
Secretary III

DUBOIS, ROBERTA 1996
Public Safety Officer

DUKA, KENNETH 1986
Utility II

DUNCAN, JR., TIMOTHY 1997
Networking and Software Specialist

DURLING, BRENDA 1998
VisTaTech Operations Manager

ELESON, BELINDA 1979
College Receptionist

ERISMAN, BRADLEY 1995
Bookstore Operations Associate

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
Administrative Secretary

GELMAN, SANDRA 1991
Corporate Services Coordinator

GERARGE, ELAINE 1984
Job Placement Technician

GERNERT, KERRY 2001
Interior Design Coordinator

GILLOW, JANINE 1998
Accounting Associate

GNIEWEK, DONNA 1999
Graphic Designer

GRANT, PHILIP 1977
Utility II

GRAYER, SHAWNDA 2000
Purchasing Assistant

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
Bookstore Textbook Buyer

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

HOOPER, MARY 2001
Primary Caregiver

HOWELL, BRADLEY 1999
Skilled Maintenance

HUBENSCHMIDT, JOHN 1990
General Maintenance

HUDSON, CHRISTINA 2004
Utility II

HUDSON, JR., ROBERT 1980
Utility I Leader

HULIK, KATHLEEN 1996
Public Relations/Media Coordinator

ISABELL, AGNES 1995
Secretary III

JARVIS, SANDY 2005
Payroll Associate

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
Operations Specialist

KLOTZ, HOLLY 2002
Accounts Management Associate

KOROL, GEORGE 1992
Public Safety Officer
KOTRBA, CONNIE 2002
Interim BDC Team Leader
KOVACS, CHRIS 1991
Public Safety Officer
KOVACS, CONNIE 1998
Primary Caregiver
KRAWCZYK, THERESA 1990
Secretary III
KREIPKE, REBECCA 2004
Secretary II
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
Accounts Receivable Associate
LYNCH, MARJORIE 1973
Special Events Coordinator
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 I
MARGHERINI, RANDY 2004
Utility II
MASON, DENISE 1992
Utility II
MATHUR, VIKRAMADITYA 1999
Corporate Services Coordinator
MATTSON, LORNA 1987
Accounts Receivable Associate
MATUSIK, SHERRINE 1983
Assistant to the Registrar
MCCARDELL, TIMOTHY 2001
Utility II
MCCARDELL, CATHERINE 2002
Financial Aid Specialist
MCCOLLISTER, DONALD 1987
Storekeeper Leader
MCCOLLISTER, DONNA 2004
Utility II
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
MODICA, JEFFREY 2004
Skilled Maintenance-HVAC
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
Coordinator-Distance Learning
PETRICCA, JULIE 1997
Senior Buyer
PIASENTIN, GERARD 1997
Project Engineer
PLEMMONS, LARRY 1997
Public Safety Officer
POCHES, KIM 2005
Coordinator-CES
POPKES, JENNIFER 2000
Bookstore Assistant C
PRENGER, ANN 1998
Lead 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
VisTaTech Conference Services Manager
RICE, RUTH 2000
Assistant to the Director of Food Service
RILEY, BONNIE 1980
Cashier III
RISATTI, ANGELA
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
Administrative Assistant/Budget Coordinator
SEVERSON, MELISSA 1992
Payroll Associate
SHAUGHNESSY-SMITH, JEAN 1989
Co-Supervisor, Children's Center
SHELTON, CAROLINE 2002
Purchasing Assistant
SHERFIELD, BARBARA 1998
Coordinator-Academic Computing Labs
SKAGGS, B. IONE 2001
Document and Layout Associate
SMITH, EMILY 1997
Admissions Office Assistant
SMITH, JONATHAN 1998
Financial Aid Assistant
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 III
STOVER, STACEY 2002
Coordinator—
Admissions and Student Recruitment
STOWELL, TODD 1996
Student Activities Technician
SULLIVAN, PATRICK 1988
Utility I
SWIGER, CURTIS JR. 1983
Sergeant, Public Safety
SYLVESTER, LUANN 1995
Programmer/Analyst
SZUKIELOWICZ, GAIL 1989
Transfer Credit Specialist
TAGAREL, LYNDSAY
Bookstore Purchasing Associate
TAYLOR, LUCIAN 1980
Storekeeper
THOMAS, TAHLIA 2002
Project Coordinator
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, JOSEPH 2005
Media Technician
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
WIKTOR-PROFFITT, MICHELLE 1988
Document and Layout Associate
WILLIAMS, MICHELLE 2005
Secretary II
WILSON, JANET 1993
Accounting Supervisor
WILSON, NICOLE 2002
Coordinator—Training and Technology
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
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
Burke, William, MA ..... POLS
Burnham, Robert, MS ..... MFG/QM
Burnside, Robert, MEd ..... COUNS
Bushart, Gerald, MA ..... MATH
Cavan, Paul, MS ..... COR/CS
Cavanaugh, Gerald, MA ..... DRAFTING/CAD
Cieslak, Daniel, H., BS ..... BUS
Clack, Donna, MA ..... COLLS
Conway, Daniel, J., MA ..... POLS
Coppola, Carlo, PhD ..... CM
Cramb, Richard, Jr., MA ..... CJ
Cuneo, 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
Gibbons, Thomas, MA ..... POLS
Glass–Boyd, Crystal, MA ..... GEOG
Gordon, Richard,F., SPA ..... BUS
Grewe, Barbara, BSN ..... NURS
Griffith, Robert, MBA ..... ACCT
Hanert, Frederick, MA ..... ECOUN
Harden, Shirley, EBM ..... MUSIC
Harm, Nancy, EdS ..... PSYCH
Harper, Ellen, MSA ..... AHE
Hoffmann Jr., Walter, MEd ..... PSYCH
Holman, Cheri, MA ..... MATH/OIS
Holtzman, Roberta, MA ..... FR/SPAN
Hopfner, John, MBA ..... BUS
Horvath, John, MA ..... PSYCH
Hurick, Patricia MA ..... COUNS
Jacobs, Jan, PhD ..... PSYCH
Johns, Michael, MA ..... HIST
Jooharigian, Robert, PhD ..... PHIL
Kappen, Orville, MA ..... CJ
Kaufman, Judith, MEd,MA ..... CPPC/HDS
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
Kulnis, Edward, MA ..... ECOUN
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
McBride, Ronald E., MA ..... ELECT
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
O'Kelly, James, MA ..... POLS
Oakes, Michael, MA ..... GEOG
Olech, Timothy, MS ..... BIOL
Parsons, Wayne, A., MA ..... CIS
Patchin-Worosz, Ellen, MS ..... BIOL
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 ..... MATH
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
Schaden, J. R., PhD ..... PHIL/PSYCH
Schuby, Thomas, MA ..... SOC
Segowski, Edward, MEd ..... MATH
Shuput, Evelyn, MA ..... ECOUN
Sikorski, Gary ..... PA
Simo, C.T., MSA ..... BUS
Skinner, Robert ..... PE
Smilnak, John, AAS ..... FIRE
Smith, Craig, MA ..... ART
St Chur, Joseph, BE ..... COMPS/ELECT
St John, Beverly, J., MS ..... BIOL
St. Louis, Mary, MA ..... MATH
Stanley, Dorothy, MA ..... MATH
Stanton, Fred, BS ..... PA
Sylvester, James, MEd ..... COUNS
Szabo, Sharon, MBEd ..... CIS
Talbert, Linda, S., MA ..... COLLS
Temporelli, Barbara, MS ..... CHEM
Trembath, Darryl, MBA ..... BUS
Turnau, III, William, BS ..... CAD
Vukmirovich, Sylvia, EdD ..... COUNS
Washka, Jack, MEd ..... PE
Weiskopf, Barbara, MS ..... PSYCH
Westover, Glenda, MA ..... MATH
Woodruff, Cecil, PhD ..... PE/MATH
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

ADJUNCT ASSOCIATE PROFESSOR

(Min. 8 yrs. service & 150 points)

Abani, Kaveh, MA ..... CIS
Alexander, Keith, BA ..... CIS
Alway, Peter, MS ..... PHYS
Badura, Arlene, MBA ..... COMA
Bartha, Paul, Z., MS ..... CIS
Bartlett, David, MA ..... CCD
Bell, Patricia PhD ..... HIST
Bodrie, Carol, BSN ..... AHE/NURS
Boron, James, MA ..... CIS
Breger, William, MBA ..... ECON/ACCT
Brown, Kathy, MA ..... ACCT/MATH
Cardellio, Carla, MA ..... BUS
Ellies, Karen, MBA ..... BUS
Enteshary–Najafabady, Abbas, MS ..... CIS
Fletcher, Debra, MA ..... BIOL
Fox, Harvey, BS ..... CIS/OIS
Frank, Robert, Licensed Paramedic ..... EMT
Garcia, Glenda, MA ..... PSYCH
Gates-Palombo, Debora, MA ..... ECOUN
Grant, Dorothy, MA ..... COLLS
Grodsky, Elliott, MA ..... ENG
Hackman, Bruce, MA ..... COMA
Harper, Michael , AAS ..... FIRE
Huber, William, BBA ..... CIS
Josiah, George, MS ..... MATH
Jubenville, Lawrence, ME ..... SOC
Julian, Bruce, BA ..... CIS

Kasenow, Gary, JD....COR
Kiurski, Thomas, MPA....FIRE
Kohlert, Peter, A., MSA....MATH
Kurland, Sheila, MS....BIOL
Laberge, Brenda, BSN....NURS
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
Modlin, Russell, BSN....NURS
Mogelnicki, Margaret, MA....CIS
Moucoulis, Ellen, MA....ART
Moylan, Mark, MA....COMA
Nadon, Robert, MA....FIRE
Patail, Bryanne, MLS....ELECT/BMET
Pederson, Vera, MA....CCD
Perry, Robert, AAS....FIRE
Peters, Chris, AAS....BMET/ELECT/COMPS
Pritt, Jeanette, MA....COMA
Qiu, Yun, MS....MATH
Redmond, Charles, MS....CIS
Rejniak, Christine, MA....COLLS
Reppenhagen, Gilbert, ME....ENG
Rothstein, Barbara, MA....GER
Sim, Julie, MA....POLS
Sitzler, Mardell, MA....MATH
Snyder, Jill....CAP
Swarup, Chitra, MS....MATH
Switalski, Jurgin, PhD....CHEM
Taylor, Kathy, BS....MT/HIT
Towner Jr., Melvin, MBA....CIS
Trpovski, Jovan, BAA....POLS
Viksne, Edgar, MBA....BUS

ADJUNCT ASSISTANT PROFESSOR

(Min. 3 yrs. service & 100 points)

Al-Shemeri, Furat, PhD....BIOL
Anderson Jr., Thomas, PhD....HIST
Anderson, Diane, MS....BIOL
Aquila, Dominic, PhD....ENG/HUM/MUSIC
Baehre, Theodore, AAS....PE
Baker-Reed, Shirley, MA....CCD
Behler, Conrad, MA....HIST
Bielat, Robert, MA....ART
Blau, Ben, Certification....MUSIC
Boyde, Silvia, MA....COLLS
Brooks, Gale, BSN....NURS
Burhans, Bruce, MA....HIST/ANTH
Derderian, Harry, MBA....BUS
Doinidis, Elgene, MS....OIS/BUS
Dunn, Robert, PhD....BIOL
Eliasson, Jonene, MA....FR
Gordon, L. G, MS/MSA....BIOL
Haynes, Constance, MSBA....OIS/BUS/CIS
Hays, Samuel, MA....ENG
Hewelt, Barry, MA....ENG
Hiller, David, MS....CJ/PA/FIRE
Hochberg, Ellen, MA....CGT
Hummer, Herbert, MS....COR
Jackson, Harold, MA....MATH
Jacobs, Elisabeth, MA....CGT
Jawad, Afif, PhD....PHYS/MATH
Jawad, Badri, MBA....ECON
Johnson, Kelly, MS....PSYCH
Johnson, Theodore, MBA....CJ
Jordan, Lynne, MS....PE
Lai, Hongyuan, PhD....MATH
Laird, Anita....CIS
Leopold, Larry, MALS....ENG
Marriott, Cindy, PhD....PSYCH
Martin, James, MA....PHIL/PSYCH
Mazur, Brian, MBA....BUS
McCulloch, Celia....CGT
McMahon, George, EdD....PSYCH/SOC
Mellnick, Gerard, MBA....ACCT
Miles, Lois, MPA....COR
Murphy, Susan, MBA....CIS
Murray, Steven, PhD....PSYCH
Ndukwe, Ernest, PhD....GEOG
Petit, Hollie, MA....COMA
Pfaendtner, Jean, MSW....CCD
Pniewski, Stanley, MAT....MATH
Porter, Donald, BS....CIS
Puggini-Denhof, Julie, MA....COUNS
Rivard, Clarence, BA....FIRE
Roney-Hays, Sandra, MA....SOC/ANTH/PSYCH
Roth, Diane, MA....MATH
Saratovtsev, Dena, BA....ENG
Siegel, Marie, BSN....NURS/HIT
Spolsky, Susan, MSW....SOC/PSYCH
Stovall, Clarice, MA....COR
Swope, Michael, MA....HIST
Synpniewski, Matthew, MA....ENG
Walker, Andrew....FIRE
Wlosinkski, Raymond, BS....FIRE
Yemets, Aleksandr, MS....MATH

Emeritus–Honoraire Employes

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

BOYE, DALE 1970–1995
Mathematics Professor Emeritus

BOYCE, MARILYN JOYCE 1973–1994
Doc-U-Center Supervisor Honoraire

BRADNER, ERIC 1961–1971 ❖
President Emeritus

BREITHAUPT, 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

GREENWELL, DIANE F. 1978–2004
Capitalize Receivable Associate 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
HEISE, WILLIAM R. 1969–1998 ❖
Counselor Professor Emeritus
HERSHOREN, GARY 1967–1996
Counselor Professor Emeritus
HOFFMANN, JR. WALTER O. 1964–2004
Psychology 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
REIBLING, LOUIS A. 1980–2004
Vice President for Instruction Emeritus
RICHMOND, MERLE J.1970–1999
Accounting Professor Emeritus
RIEF, MARY JO H. 1987–2004
Administrative Assistant to the Vice President for Finance and Business Services Honoraire
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
RYKTARSYK, DONNA 1967–2003
Assistant Director-Financial Aid Honoraire
SAMPSON,DOROTHY 1967–1998
Nursing Professor Emeritus
SATTIG, HARRIETT H. 1963–1980
Director of Health Careers Emeritus
SCHARMEN, LARRY L. 1985–2000
Biomedical Engineering Technology Professor Emeritus
SCHEWE, STEPHEN J. 1972–2004
Physics Professor Emeritus
SHON, MAYBELLE B. 1966–1983
Secretary to Dean of College Centers Honoraire
SIPES, 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
UDRYS, JANINA 1973–2004
Mathematics 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

❖Deceased

Advisory Committees

Accounting

Richard Berschback, CPA	Associate Professor of Accounting, Walsh College, Troy
William Breger	Accountant, W. A. Breger, Bloomfield Hills
Janet Evans	Senior Accountant, Medstat Group, Thomson Corporation, Ann Arbor
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, Harper Professional Office Building, Detroit
Ronald Edmonds	Manager, Clinical Engineering, Providence Hospital, Southfield
Jane Focht, CBET	Certified Biomedical Engineer, 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 Engineer , 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
Felicia Legardy	Child Day Care Home Provider, Schoolcraft College Student, Detroit
Karen Lynch	Assistant Director of Provider Services, Child Care Coordinating Council of Detroit/ Wayne County, Detroit
Mylon Reynolds	Education Coordinator, Wayne County Head Start, Wayne
Patricia Sargent	Director of Early Childhood, Downriver Guidance Clinic, Lincoln Park
Julie Tuck	Teacher, Churchill High School, 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
Gene Keyes	President, Keyes & Company, Inc., Highland
David J. Lawrence	Project Launch Coordinator/Engineer, Ford Motor Company-Michigan Truck, Wayne
Matthew J. Lee	Training Developer, Ford Motor Company, Plymouth

Computer Graphics Technology

Jacob. S. Pollack	President, The Detroit Creative Group, Detroit
Stephanie Mead	Graphic Designer, O2 Creative Solutions, Detroit
Sarah C. Abate	Media Coordinator, Department of Radiology, U of M, Ann Arbor

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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, Dearborn
Karl Zager	Consultant, Plante & Moran PLLC, Southfield
Vincent Zebraitis	Consulting Systems Engineer, Cisco Systems, Inc., Southfield

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
Matt Prentice	Owner/Entrepreneur, Morels, Bingham Farms
Leopold Schaeli	Master Chef, Retired, West Bloomfield

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

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 Engineering Technician, 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 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, Berwick Saddle Club, 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 Technology and Continuing Education

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
David Hiller	Director, Grosse Pointe Park Department of Public Safety, Grosse Pointe Park
Randall Layton	Retired Chief, Southgate Fire Department, Southgate
Daniel McNamara	4th District Vice President, Michigan State Fire Fighter's Union, Lansing
Keith Weisgerber	Training Coordinator, Michigan Fire Fighter's Training Council, Lansing

Health Information Technology, Medical Transcription and Coding Specialist

Gail Alder	Retired 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	Retired 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

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Kids on Campus

Donna Tinberg	Director of Student Services, Novi Community Schools, Novi
Dr. Elizabeth Hammer	Department Chairperson, DELTA Gifted, Farmington Public Schools, Farmington
Susan Ryan	Consultant, Livonia
Janet Good	Gifted Specialist, Livonia Public Schools, Livonia
Janice Henderson	Facilitator, Northville Public Schools, Northville
Lynn Haire	Principal, Plymouth-Canton Community Schools, Plymouth-Canton

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
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

Learning Assistance Center and Developmental Education

Mary Couillard	Career Intern Coordinator, Livonia Public Schools, Livonia
Becky Huang	Adult Services Librarian, Livonia Civic Center Library, Livonia
Shawnese Laury-Johnson	Rehabilitation Counselor, Commission for the Blind, Detroit
Jan Kavulich	Counselor, Plymouth High School, Canton
Bridget Kocurek	Counselor, Canton High School, Canton
Barbara Lehmann	Counselor, Canton High School, Canton
Mary Prouty	Adult ESL, 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
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, 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 Vincent	Certified Medical Assistant and Registered Medical Assistant, Tempro, Westland

Metallurgy and Materials Science

Nicholas Gianaris, PhD, PE, FASM	Senior Engineering Specialist, General Dynamics Land Systems Sterling Heights
M. Tod Gonzales	President, Heidtman Steel, COO, 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, Six Sigma Black Belt, Visteon Chassis Systems, Dearborn
Daryl R. Wilusz	Corporate Materials Analysis Manager, 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, Convalescent Center, Westland
Peggy Comstock	Degree Completion Coordinator, Madonna University, Livonia
Lisa Chudzinski	Director of Nursing, Whitehall Healthcare, Novi
Carol Ann Fausone	Director of Nursing, St. Mary Hospital, 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

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Office Information System

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
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 Plant, Ypsilanti
Larry Tatro	Vice President Sales, Welding Robotics and Automation, Plymouth Wayne Welding Supplies, Inc., Wixom
Robert Wilcox	Advanced Supplier Development Engineer (ASDE), Visteon Corporation, Van Buren Township

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, Garden City *Observer and Eccentric*, 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

Campus Phone Directory

Admissions—Schedules/Catalogs
McDowell Center 734-462-4426

American Harvest Restaurant
VisTaTech Center 734-462-4488

Athletics
Physical Education Building .....734-462-4400, ext. 5564

Bookstore
Service Building 734-462-4409
Radcliff Center, Garden City 734-462-4778

Business Development Center
VisTaTech Center 734-462-4441

Career Planning & Placement Center
McDowell Center 734-462-4421

Cashier
McDowell Center 734-462-4449

Children's Center
off South Parking Lot 734-462-4442

Continuing Education Services—CES
Continuing Education Center 734-462-4448

Counseling
McDowell Center 734-462-4429

Development & Governmental Relations
VisTaTech Center 734-462-4463

Disabled Student Services
McDowell Center 734-462-4436

Distance & Distributed Learning
Online & Video
Grote Administration Center 734-462-4532
Open Entry/Open Exit 734-462-4588

Facility Rentals
VisTaTech Center 734-462-4475

Finance & Business Service
McDowell Center 734-462-4416

Financial Aid
McDowell Center 734-462-4433

Food Services
VisTaTech Center, Waterman Wing 734-462-4471

Grade Reports—Registrar
McDowell Center 734-462-4430

Hearing Impaired Phone Lines
Livonia 734-462-4437
Radcliff Center, Garden City 734-462-4773

Human Resources
Grote Administration Center 734-462-4408

Information
McDowell Center 734-462-4400

Learning Assistance Center
Bradner Library 734-462-4436

Library Services
Bradner Library 734-462-4440
Radcliff Center, Garden City .....734-462-4400 ext. 6020

Marketing Department
Grote Administration Center 734-462-4417

Media Center
Bradner Library .....734-462-4400, ext. 5330

Office of Instruction
Grote Administration Center 734-462-4451

Payroll
McDowell Center .....734-462-4400, ext. 5368

President's Office
Grote Administration Center 734-462-4420

Public Safety (Security)
Service Building 734-462-4424

Purchasing
McDowell Center 734-462-4444

Radcliff Center
Garden City 734-462-4770

Student Accounts
McDowell Center 734-462-4586

Student Activities
VisTaTech Center, Waterman Wing 734-462-4422

Student Newspaper, *The Connection*
VisTaTech Center, Waterman Wing 734-462-4422

Student Refunds
McDowell Center 734-462-4430

Tennis Courts
Tennis House 734-462-4434

Transcripts—Registrar
McDowell Center 734-462-4480

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

Women's Resource Center
McDowell Center 734-462-4443

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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 collegio 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 Student Services and the Office of Instruction.

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
CRT = Skills Certificate (less than one year)
1YC = One Year Certificate
PAC = Post-Associate Certificate

Skills Certificates

Medical Assisting—
- Medical Biller/Receptionist CRT.00350
- Phlebotomy CRT.00325
- Physician Office Medical Transcription CRT.00330

Certificates

Accounting 1YC.00001
Business—Basic 1YC.00002
Business Information Technology 1YC.00242
Child Care and Family Services—
- Child Care and Development 1YC.00031
- Child Development Associate (CDA) 1YC.00034
- Family Support 1YC.00143
- Special Needs Paraprofessional 1YC.00032

Computer Aided Drafting—
- Electromechanical 1YC.00118
- Technical 1YC.00119

Computer Graphics Technology—
- Foundation 1YC.00164
- Computer Graphics Technology 1YC.00136
  - 3D Animation
  - Digital Art
  - Interactive Media and Game Design
  - Motion Graphics and Video
  - Publishing
  - Web Design

Computer Information Systems—
- Introductory 1YC.00004
- Networking Technology Integration 1YC.00270
- Web Specialist 1YC.00241

Computer Service Technician 1YC.00159
Culinary Arts—
- Culinary Arts [1] 1YC.00079
- Culinary Arts—Baking and Pastry [1] 1YC.00247

Electronics Service 1YC.00125
Emergency Medical Technology 1YC.00024
Firefighter Technology [1] 1YC.00149
Health Information Technology—
- Coding Specialist [1] 1YC.00240

Laser Technology 1YC.00059
Massage Therapy [1] 1YC.00255
Medical Assisting [1] 1YC.00026
Medical Transcription [1] 1YC.00029
Metallurgy—Applied Physical 1YC.00124
Music—
- Foundations 1YC.00162
- Intermediate 1YC.00163
- Piano Teacher 1YC.00115
- Recording Technology 1YC.00144

Nursing—Licensed Practical [1] 1YC.00017
Office Information Systems—
- Office Specialist 1YC.00166

Welding—Fabrication 1YC.00127

Associate Degrees

Accounting AAS.00005
Biomedical Engineering Technologist AAS.00128
Broadcast Communications AAS.00041
Business—
- General AAS.00008
- Marketing and Applied Management AAS.00009
- Small Business Management AAS.00011

Business Information Technology AAS.00277
Child Care and Family Services—
- Child Care and Development AAS.00020
- Family Support AAS.00243
- Special Needs Paraprofessional AAS.00021

Computer Aided Design—Mechanical AAS.00170
Computer Assisted Manufacturing AAS.00150
Computer Graphics Technology AAS.00028
  - 3D Animation
  - Digital Art
  - Interactive Media and Game Design
  - Motion Graphics and Video
  - Publishing
  - Web Design

Computer Information Systems—
- Programming AAS.00012
- Microcomputer Support Technician AAS.00014
- Web Specialist AAS.00275

Cosmetology Management AAS.00010
Criminal Justice—
- Criminal Justice AAS.00086
- Criminal Justice with Academy [1] AAS.00086

Culinary Arts [1] AAS.00087
Electronics Technology AAS.00120
Emergency Medical Technology AAS.00250
Environmental Technology AAS.00176
Fire Technology—
- Fire Technology [1] AAS.00177
- Fire Technology with Academy [1] AAS.00177

Health Information Technology [1] AAS.00153
Manufacturing for Quality Production AAS.00135
Metallurgy and Materials Science AAS.00184
Music—Recording Technology AAS.00244
Nursing—Registered [1] AAS.00000
Office Information Systems—
- Office Administration AAS.00133

Associate Degree Seeking, Undecided [3] 00800

Post-Associate Certificates

Biomedical Applications [2] PAC.00178
Computer Graphics Technology [2] PAC.00181
  - 3D Animation
  - Digital Art
  - Interactive Media and Game Design
  - Motion Graphics and Video
  - Publishing
  - Web Design

Computer Information Systems [2] PAC.00155
Culinary Arts—
- Brigade Advanced Skills [2] PAC.00288

Culinary Management [2] PAC.00157
Metallurgy—Materials Science [2] PAC.00179

Non-Degree Seeking 00900

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
- Manufacturing
- 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

Transfer Degree Seeking, Undecided [3] 00801

[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.

[3] Students pursuing Core Skills.

These programs and courses are described in the current Schoolcraft College Catalog. College catalogs are available online at www.schoolcraft.edu or in the Office of Admissions, McDowell Center, 734-462-4426.

Schoolcraft College

Application for Admission and Readmission

Assigned Student Number

✓**Applications are accepted throughout the year**

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? 2 0 0 (year)

- ❍ Summer Session (July–August)
- ❍ Fall Semester (August–December)
- ❍ Winter Semester (January–April)
- ❍ 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
- ❍ Black or African American
- ❍ Other
- ❍ Asian American
- ❍ Hispanic or Latino
- ❍ American Indian or Alaskan Native
- ❍ Native Hawaiian or Other Pacific Islander

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? ❍ Yes — Graduation Date: ___/___ (month and year)

❍ No Did you receive a GED? ❍ Yes — GED Date: ___/___ (month and year)

❍ 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: ❍ Associate ❍ Master's ❍ No Degree ❍ Bachelor's ❍ PhD Number of credit hours _____

City _____ State _____ if non-US, Country _____ Number of classes successfully completed _____

College/University _____ Degree Earned: ❍ Associate ❍ Master's ❍ No Degree ❍ Bachelor's ❍ PhD Number of credit hours _____

City _____ State _____ if non-US, Country _____ Number of classes successfully completed _____

College/University _____ Degree Earned: ❍ Associate ❍ Master's ❍ No Degree ❍ Bachelor's ❍ PhD 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.

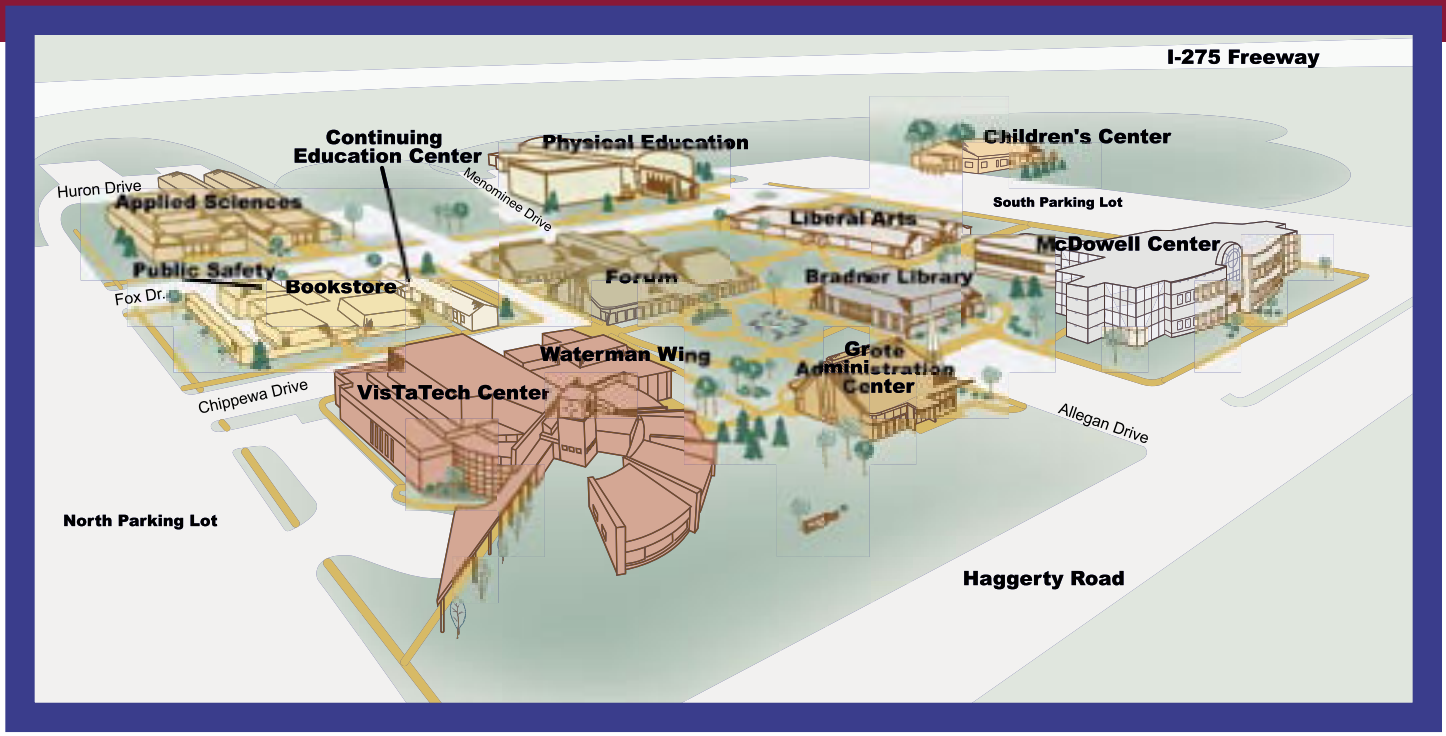
Any student requiring accommodations information for a disability, please contact the Learning Assistance Center at 734-462-4436.

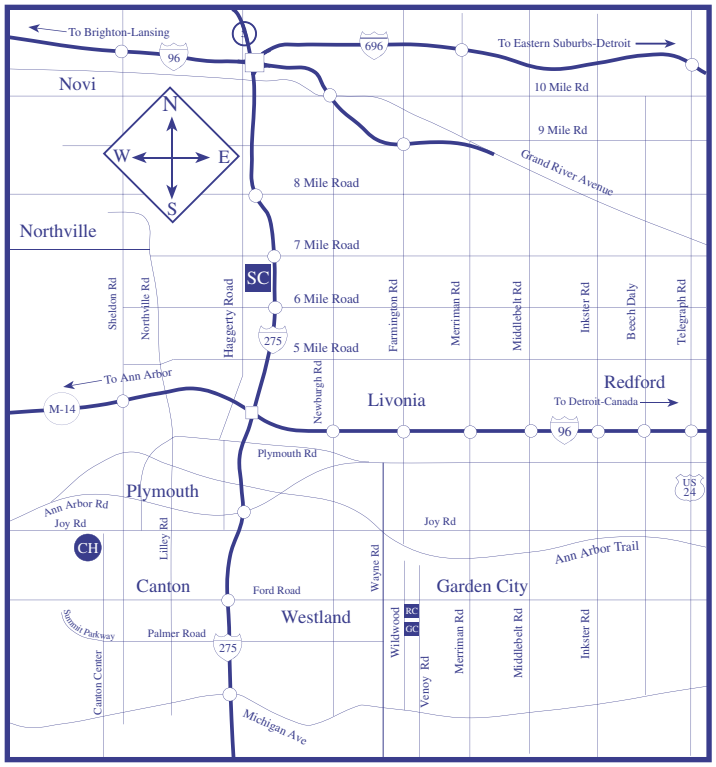
Signature of Applicant _____ Date of Application _____

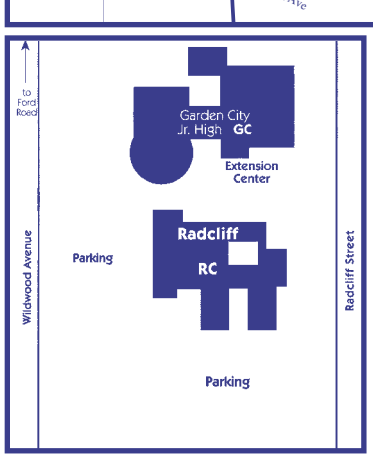
It is the policy of Schoolcraft College that no person shall, on the basis of race, color, national origin, gender, age, marital status, creed or handicap, be excluded from participating in, be denied benefits of, or be subjected to discrimination during any program or activity or in employment.

Office of Admissions
Schoolcraft College
18600 Haggerty Road
Livonia, MI 48152-2696
Phone: 734-462-4426
Fax: 734-462-4553

Campus & Area Maps







Schoolcraft Campus
18600 Haggerty Road
Livonia, MI 48152-2696
734-462-4400

Radcliff Center
1751 Radcliff Street
Garden City, MI 48135
734-462-4770

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 Instruction
- Distance & Distributed Learning
- Human Resources
- Marketing Department
- Office of Instruction
- Office of the President

Liberal Arts Building
- Assistant Dean, Liberal Arts/Independent Learning
- Classrooms
- Liberal Arts Programs
- Theatre

Library
- Archives
- Learning Assistance Center

McDowell Center
- Admissions
- Assessment Center
- Career Planning & Placement
- Cashier
- Classrooms
- Computer Labs
- Counseling
- Finance & Business Services
- Financial Aid
- Grants & Research
- 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
- Development & Governmental Relations
- Main Street Cafe
- Schoolcraft Foundation

Waterman Wing
- Henry's Food Court
- Food Service
- Meeting Rooms
- Recreational Areas
- Student Activities
- Student Clubs
- Study Area

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