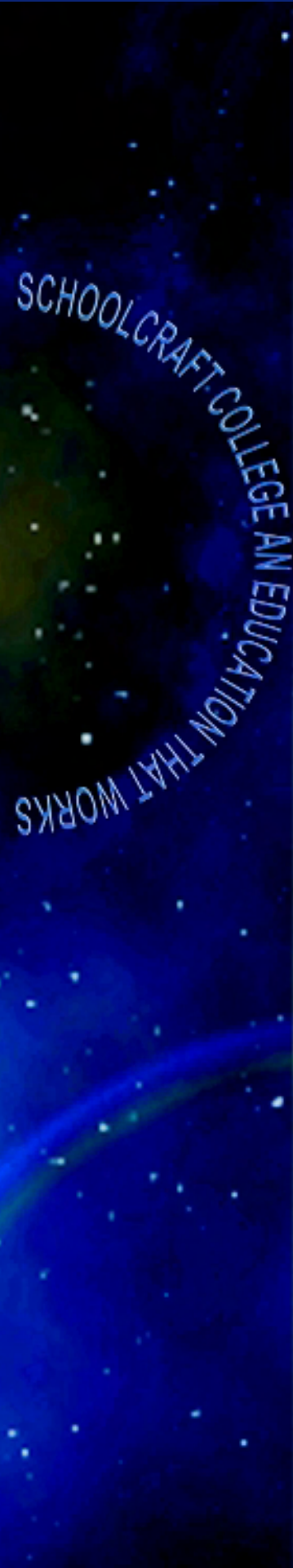
The background of the cover is a deep blue sky filled with white stars. A bright sun with a yellow and orange glow is positioned in the upper right, with rays of light extending across the sky. A green ladder is shown from a low angle, reaching upwards towards the sun. The ladder is positioned vertically, with its rungs clearly visible. The overall theme is one of aspiration and reaching for the stars.

Schoolcraft College

Catalog

New Student Checklist

- 
- ☐ Visit our campus. Call 734-462-4426 to schedule a guided campus tour.
 - ☐ Apply for admission. Complete the free application on the last page of this catalog.
 - ☐ Request that your high school transcript or GED scores, ACT scores and college transcripts be sent to the Office of Admissions. Apply for financial aid. Call 734-462-4433 for the Financial Aid Application packet.
 - ☐ Check the list of available scholarships in the Scholarship Book in the Office of Financial Aid.
 - ☐ Take a free placement test. Testing is on a walk-in basis. Call 734-462-4806 for Assessment Center hours. Recent ACT scores may be used for placement purposes.
 - ☐ Attend an orientation session and learn helpful tips for succeeding at Schoolcraft. Call 734-462-4486 to make a reservation.
 - ☐ Meet with a counselor. Call 734-462-4429 to schedule an appointment.
 - ☐ Register and pay for your classes using telephone, mail-in or walk-in registration options.
 - ☐ Explore the Bradner Library, computer labs, the Learning Assistance Center, the Career Planning and Placement Center and other student services available to help you succeed.
 - ☐ Meet new people. Get involved. The College offers a variety of clubs, organizations and events to expand your college experience.

Enjoy your classes and have fun!

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Accreditation

Schoolcraft College is accredited by the Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools. In 1991, its accreditation was reviewed and reaffirmed through 2001. For inquiries regarding accreditation, contact the North Central Association of Colleges and Schools, Commission on Institutions of Higher Education, 30 North LaSalle Street, Suite 2400, Chicago, Illinois 60602-2504; telephone 800-621-7440; fax 312-263-7462; e-mail address info@ncacihe.org or access the Web site at www.ncacihe.org.

Schoolcraft has a number of programs that have gained state or national approval or accreditation. They include:

- The Associate Degree and Practical Nursing programs are approved by the Michigan Board of Nursing.
- The Occupational Therapy Assistant program is accredited by the Accreditation Council for Occupational Therapy Education.
- The Health Information Technology program is accredited by the Commission on the Accreditation of Allied Health Education Programs, in collaboration with the American Health Information Management Association's Council on Accreditation.
- The Medical Assisting program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) on recommendation of the Curriculum Review Board of the American Association of Medical Assistants' Endowment.



Board of Trustees



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2000-Foundation Board of Governors -2001

Schoolcraft College Foundation Officers: Robert Farris, President — Ralph C. Wilson Agency;
George Grafe, President Elect; Peter Karadjoff, Secretary — Mercy Health Services;
Margaret Slezak, Treasurer — Peoples State Bank



Left to Right: Ex-Officio Member Gregory J. Stempien, Schoolcraft College Board of Trustees, George Grafe, Cheri Holman, Jane Thomas; Suzanne Thomas-Hughes, Todd Knickerbocker, Margaret Slezak, Robert Farris, Ex-Officio Member Dr. Richard W. McDowell, President, Schoolcraft College
Not Pictured: John Allie, Elise Benedict, John Blackwell, Steve Gordon, Bonnie Hartsock, James Jabara, Charles McIlhargey, Alberta Muzzin, Colleen Pobur, John N. Santeiu, Jr., Richard Shaffner, Michael Taschner, and Firial Zarou

It is the policy of Schoolcraft College that no person shall, on the basis of race, color, national origin, gender, creed, age, marital status or handicap, be excluded from participation 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
Schoolcraft College
18600 Haggerty Road
Livonia, MI 48152
734-462-4431

Employment
Betty Gilbert, 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 should be directed to:

Section 504
Adelard H. Raby III
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.

Welcome to Schoolcraft

Welcome to Schoolcraft College

The new century is upon us. Schoolcraft College is prepared for the future with exciting new classes, state-of-the-art labs, and instructors who are eager to share their knowledge and help students succeed.



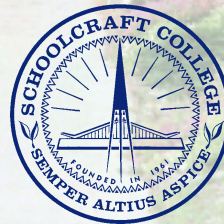
At Schoolcraft, you will be challenged by ideas and innovative learning activities. You may become involved in community projects. You will enjoy small classes with personalized instruction. You will learn and grow and find an academic home. At Schoolcraft, our slogan is "An Education that Works."

Whether you take classes or seminars, attend special events or just visit, everyone at Schoolcraft College welcomes you. We invite you to become part of the Schoolcraft community.

Sincerely,

A handwritten signature in blue ink that reads "Richard W. McDowell". The signature is written in a cursive style.

Richard W. McDowell
President, Schoolcraft College



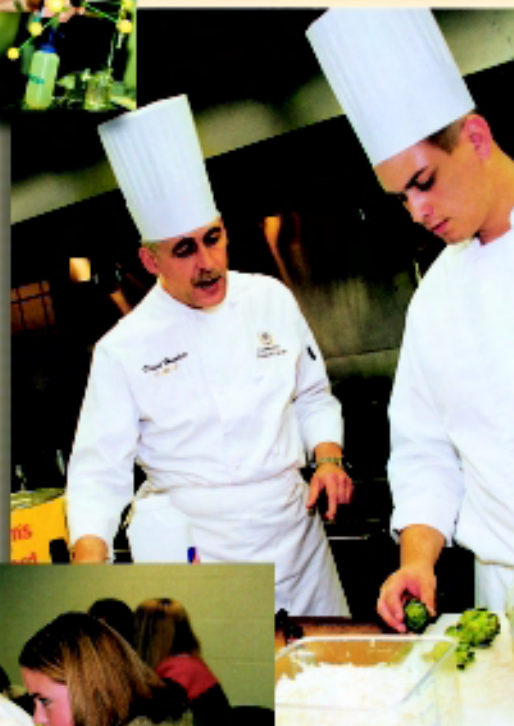
Schoolcraft-The Right Choice

Schoolcraft College is the right choice for you because...

- *You* receive a quality education that prepares you for a dynamic future.
- *Your* teachers are part of an award-winning faculty.



- *You* have small classes with personalized attention.
- *You* can commute easily to campus from several major freeways.
- *Your* college tuition is affordable.



SCHOOLCRAFT COLLEGE AN EDUCATION THAT WORKS



- *You* can choose from programs that prepare you directly for a career or transfer to a four-year institution.
- *You* have access to more student computer labs than at any community college in Michigan.

- *You* can access student services dedicated to help you obtain financial aid, employment or tutoring.



- *You* have opportunities to be involved in the community through Phi Theta Kappa, the Student Activities Board and the Schoolcraft Scholars Honors Program.



Something for Everyone

An Education that Works: Learning Tailored to Your Style



No one walks or talks or looks the same, and no one learns the same. Schoolcraft College recognizes the individual needs of students and offers classes at different times in different formats to fit your schedule and your learning style.

You can take:

- *Traditional* classes, offered during the day, in the late afternoon, in the evening and on weekends.
- *Television* and audio classes, which let you set your own schedule.
- *Online* classes, using e-mail to interact with faculty and other students.
- *Open Entry/ Open Exit* classes are designed for students to take course work at their own pace.



SCHOOLCRAFT COLLEGE AN EDUCATION THAT WORKS



- *Omnibus*, the joint Schoolcraft-Madonna University program leading to a master's degree in four years.



- *Computer-based* classes, with lessons entirely on the computer and an instructor present to help.



- *Schoolcraft Scholars*, an honors program emphasizing learning and community service.



- *Classes* in Livonia, Garden City at the Radcliff Center and in Canton.



An Education That Works

SCHOOLCRAFT COLLEGE AN EDUCATION THAT WORKS



*An Education That
Works: Learn the Skills
for a Great Career*

Whether you have a clear career path or are searching for the right direction, Schoolcraft

programs are geared toward preparing you for a real career in the real world. If you plan to continue your education at a four-year institution, enter the job world immediately after graduation

or add new skills, the high quality instruction you receive at Schoolcraft will be your foundation for future success.





The Learning Goes On

SCHOOLCRAFT COLLEGE AN EDUCATION THAT WORKS



The Business Development Center offers area companies many services vital to maintaining a competitive advantage. They include up-to-the-minute customized training, small business assistance, guidance in establishing or expanding international trade opportunities, aid in winning government contracts and instruction in trade skills.

Beyond the Classroom

College life extends beyond the classroom. Meeting new people and having fun enhances your college experience.



*Whitewater Rafting
The MacGuffin
Golf
SCool Jazz
Ski Trips*

*Phi Theta Kappa
Schoolcraft Connection
Spring Break in Florida*



*Soccer
Basketball*

The key to your future

SCHOOLCRAFT COLLEGE AN EDUCATION THAT WORKS



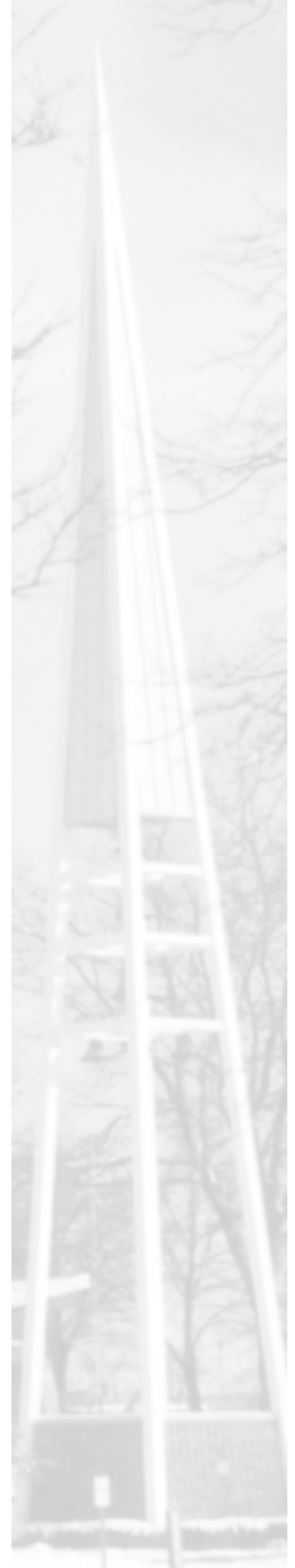
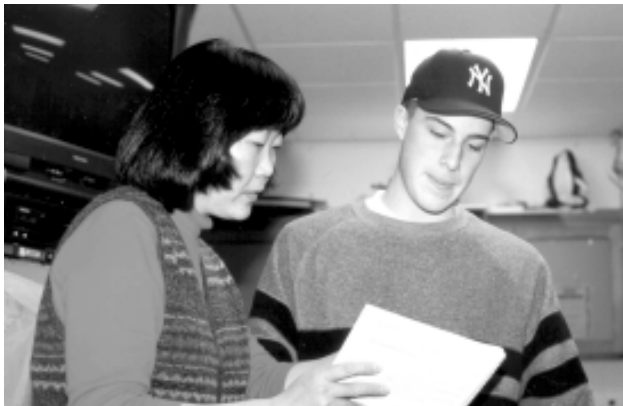
*An
Education
that
Works*





Schoolcraft College

The College



The College

College Mission

Schoolcraft College's mission is to serve the community as an educational, cultural and recreational center and to provide an environment where students receive a quality education. The College is dedicated to meeting the challenges of a changing society and tailoring its programs and services to the needs of the community.

College programs are designed to help individuals realize and develop their potential, increase their ability to think critically and creatively, develop their capacity for making sound judgments, appreciate their cultural heritage and participate meaningfully in the life of their community. The College cooperates with public and private schools, colleges and universities, and other community organizations in performing this mission.

The College serves the community by:

- Providing programs and courses that develop a broad range of knowledge and skills needed for careers in business, industry, health and technical fields.
- Providing programs and courses that prepare students to transfer to other academic institutions and continue their studies toward a bachelor's or professional degree.
- Providing developmental programs and courses that prepare students to perform successfully in the rigorous academic atmosphere of a college.
- Providing counseling and guidance programs that prepare students to reach their maximum potential in their personal, social, educational, career and life goals.
- Providing lifelong education for students of all ages.
- Providing community service programs and activities that enrich the lives of people in the greater College community.

Quality Assurance

Schoolcraft College is committed to preparing highly skilled graduates, capable of performing effectively in their major field of study and meeting the College's general degree requirements. The College assures its students, their prospective employers or the institutions to which they transfer, that individuals who have earned Schoolcraft degrees or certificates with a 2.0 or higher grade-point average are fully capable of competent performance.

Any Schoolcraft student who transfers to a new institution after meeting our academic criteria should perform at a level equal to or higher than students who began their academic career at the new institution. If the receiving institution believes the transferring student is unprepared in specific areas, Schoolcraft will permit the student to retake relevant courses without tuition charges.

Schoolcraft has articulation agreements with a number of Michigan institutions guaranteeing that our students' associate degrees and specific courses transfer. Students who follow the advice of College counselors will find the maximum number of earned credits will transfer to the receiving institution.

Students in a career program earning a degree or certificate with a 2.0 or higher grade-point average can be expected to perform competently in their area of specialization. Any employer who believes a Schoolcraft graduate does not possess adequate entry-level skills and can specify deficiencies may request remediation. Schoolcraft will permit the student to retake relevant courses without tuition charges.

These assurances are made for individuals who transfer to another academic institution or gain employment within one year of receiving a Schoolcraft degree or certificate.

College Sites

Schoolcraft College is a great place to launch your career, whether you continue at a four-year institution or enter the working world immediately after graduation. At Schoolcraft, students receive the first two years of higher education at a convenient, close-to-home location, with day, evening, weekend, distance and online classes. There are 50 academic programs that allow students to transfer to universities, and almost 60 career programs that prepare students for jobs now and in the future.

Schoolcraft students thrive in its friendly, welcoming atmosphere and enjoy the personal attention they receive in its classes as well as the lively student-teacher interaction. There are two convenient locations, in Livonia and Garden City. Limited classes are offered in Canton.

The Livonia Campus

The Livonia main campus houses the administrative offices, three classroom buildings, the Waterman Campus Center, the Continuing Education Center, physical education facilities and the main College Bookstore. Student services are concentrated in the McDowell Center. This makes it possible for students to register, see a counselor, take assessment tests, get help with classes, pay fees, find employment and use a computer lab without leaving the building. Programs offered on campus include the College's highly acclaimed culinary arts curriculum, computer technology, childcare and development with the Children's Center as a laboratory setting, music and theatre facilities and metallurgy and materials science.

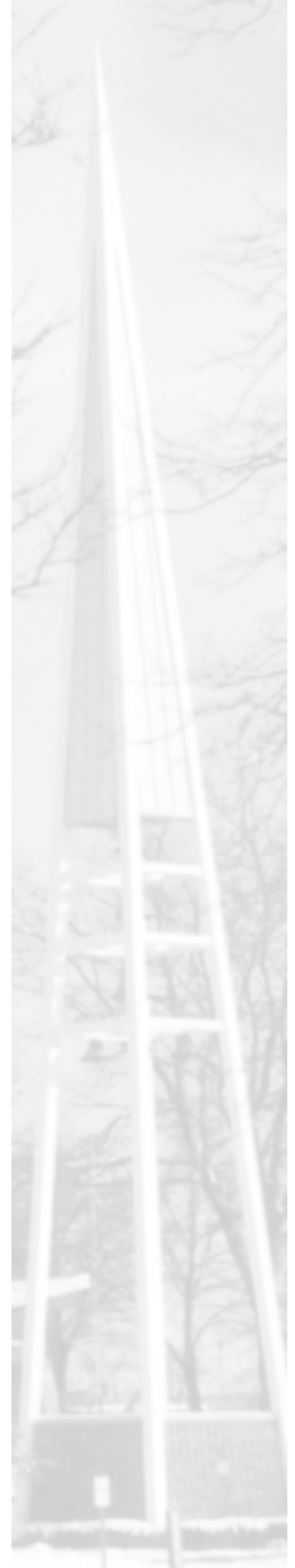
Radcliff Center

Students may take general education courses or specific career programs at the Radcliff Center in Garden City. The Center is an extension of the College's Livonia campus, established to provide convenient accessibility for students, serve the local community, and provide opportunities for students to pursue quality education. The Center houses 34 classrooms, offices, a new state-of-the-art biology classroom and lab, four new Internet stations in the Library, and a new medical assisting mock office for the recently accredited Medical Assisting program. Many student services are available. The Center specializes in career programs in allied health and public safety.



Schoolcraft College

Admissions and Financial Information



College Admissions

McDowell Center Room 260
Office of Admissions
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 less than 18 years old will be considered for admission based on placement testing, individual counseling and recommendations from their high school principal.
- Students still attending high school 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 High School Special Enrollment.

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

Admissions Process

Students seeking admission must submit the following to the Office of Admissions:

- A completed Schoolcraft College Application for Admission
- An official high school transcript(s)
- An official college transcript(s), if applicable
- Proof of residency.

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

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

High school students enrolled in grades 11 and 12, who have completed the MEAP High School Test and earned an endorsement in the subject area or enroll in courses that do not require an endorsement, may apply for Dual Enrollment at Schoolcraft College under the Postsecondary Enrollment Options Act of the State School Aid Act. Students are admitted for one semester at a time under Dual Enrollment. Applications are available at the student's high school. To be processed, the application must have a list of approved courses and signatures of the student, parent and school principal. 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.

High School Special Enrollment

High school sophomores, juniors or seniors who, together with their counselor, have identified a course they want to take for high school and college credit, may apply to Schoolcraft College as a special high school applicant. Students are admitted for one semester at a time under High School Special Enrollment. Applications are available at the student's high school. To be processed, the application must have a list of approved courses and signatures of the student, parent and high school counselor. 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. To update all information, students are requested to complete a free Application for Admission and Readmission before registration.

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

Transfer Students

Schoolcraft College accepts transfer students from other colleges. Students with less than a 2.0 grade-point average or who have been academically dismissed from their previous school will be considered on an individual basis. The most effective academic planning occurs after the College receives all transcripts, and the student completes all required testing.

All transfer students must submit official copies of their transcripts from all previous colleges attended. Grades are not transferred; only credits and courses are recorded. Students who have earned fewer than 24 college credit hours also must submit their high school transcripts. A high school transcript is required if a student is applying for one of the limited enrollment programs, regardless of previous college attendance.

Guest Students at Schoolcraft College

Students attending another college may enroll at Schoolcraft as guest students. Guest students may register for course(s) without taking placement tests or meeting with a counselor, unless they so choose. Students must submit a completed Michigan Uniform Guest Application or out-of-state Guest Application bearing their college's institutional seal and Registrar's signature designating the course(s) they plan to take at Schoolcraft College. Students can obtain the form from the Registrar's Office at their current college. 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. Students not submitting a Michigan Uniform Guest Application or out-of-state Guest Application may not be exempt from Schoolcraft College admission or enrollment requirements.

Guest Students from Schoolcraft College

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

F-1 Visa International Students

Before admission, all F-1 applicants whose native language is not English must demonstrate adequate knowledge of written English, in addition to other documentation such as a sufficient level of financial support required by Federal Immigration and Naturalization Services (INS). The College documents and determines the minimum level of competency and adequacy of support.

A minimum TOEFL score of 500 on the paper test, 173 on the computer-based test or 70 on the MELAB (Michigan English Language Assessment Battery) is currently considered proof of English proficiency.

F-1 Visa students must maintain full-time enrollment to fulfill INS requirements. All new students follow College placement testing and counseling requirements. Students are admitted for fall, winter, spring and summer terms.

Contact the Office of Admissions at 734-462-4426 for additional information and to request the International Student Packet.

Non-Native English Speaking Students

All students whose native language is not English will demonstrate adequate knowledge of written English before enrolling for classes through placement testing.



Financial Information

Tuition and Fees

Students wishing to register should carefully check class schedules for current tuition and fees. Class schedules are mailed to in-district residents and others three times a year. Students who do not receive a schedule in the 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. Tuition and fees are subject to change. Students with questions about payments should contact the Cashier's Office at 734-462-4449.

Resident and Nonresident Status

Residency status determines the tuition rate students are charged.

- A resident student is one whose legal residence is within the College District. The College District includes the public school districts of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton, and part of Novi. Students may be asked to certify residence status at any time while attending the College. Students are charged tuition based on the address on record in the Registrar's Office. Students who move and change their residency status, but do not report the change, will be charged the appropriate tuition rate. Resident status is determined at the beginning of each semester.
- A nonresident student is one who resides outside the College District.
- An out-of-state student is one whose legal residence is beyond the boundaries of the State of Michigan.
- International Students (F-1 or other non-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 Office of Admission.
- The legal residence of unmarried students under 18 years of age is that of their parents or guardian, regardless of where the student may reside. For those older than 18, the legal residence is that city in which residence is permanently maintained.
- The Registrar will review questions about resident and nonresident status. Students who change their legal residence must complete a Change of Address Form in the Registrar's Office. Students may be asked to provide two or more of the following items as proof of resident status:
 - Valid driver's license
 - Official communications from public utilities
 - 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 company authorizes the College to do so in a purchase order or authorization letter. Authorizations are required each semester. Contact Accounts Receivable, 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.

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

Refund Policy

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

Refunds are made by the Office of Financial Services only after students drop the class(es) and complete the Request for Refund Form. Students whose classes are canceled by the College may receive a 100 percent tuition refund or select another open section paying any added fees. Consult the Registrar's Office for the refund period for classes that do not start at the beginning of a semester. Classes meeting 8 or 12 weeks have a shorter refund period.

Normally, there are no exceptions to the refund procedure. However, if the Dean of Student Services or his/her designee, determine that extenuating circumstances exist, such requests will be handled on an individual basis.

Financial Aid

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

A college education is one of the most important investments you can make. Schoolcraft College understands that students often need help to finance their education. The College participates in a variety of financial aid programs that help eligible students meet college expenses. Many programs base their awards on financial need, but some programs have other requirements such as academic achievement. For additional information on financial aid, consult: The Student Guide, published by the U.S. Department of Education; the Schoolcraft College Financial Aid Handbook; and The 5 Ws of Financial Aid, published by the Michigan Department of Education, and other information accompanying the application and award materials. Reliable Internet sources for financial information are “The Financial Aid Page” at www.finaid.org; U.S. Department of Education at www.ed.gov/studentaid; Michigan Department of Treasury Student Financial Aid Information at www.MI-StudentAid.org. All programs, criteria and funding are subject to change without notice.

Financial Aid Programs

The following section provides brief descriptions of the financial aid programs available through 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. Generally, grants and scholarships are tax free if they are used for qualifying tuition and course-related expenses. Questions regarding tax issues should be directed to the IRS or your tax preparer.

Grant Programs

Federal Pell Grant

This is a federal grant program for students without a bachelor's degree in an undergraduate program who demonstrate exceptional financial need. The award range is set by the federal government each academic year and currently ranges from \$400-\$3,300. Enrollment requirements range from less than half-time to full-time depending on individual eligibility.

Federal Supplemental Educational Opportunity Grant (FSEOG)

This is a federal grant program 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 exceptional financial need who enroll for a minimum of six credit hours per semester and 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 citizens or permanent residents, are considered independent students according to Federal guidelines, have been out of high school at least two years (other than GED), and have been continuous residents of Michigan for 12 months.

Tuition Incentive Program (TIP)

This state grant program provides funding for tuition and mandatory fees to students under age 20 who are high school graduates or have earned a GED. The Family Independence Agency certifies financial eligibility for each recipient. TIP will only pay for tuition and fees at the resident college rates. Students must enroll for a minimum of six credit hours per semester.

Scholarships

Students are encouraged to consult the Scholarship Book in the Office of Financial Aid. The Scholarship Book contains the current scholarship offerings, criteria and deadline dates for each semester. In addition to those listed in the book, other scholarships are available. Consult a financial aid advisor.

Michigan Competitive Scholarship Program

This state scholarship program provides up to \$1,200 per academic year to students who achieve required scores on the ACT exam, who demonstrate financial need, and who enroll in an eligible college or university in the State of Michigan. Applicants must be citizens or permanent residents and must have been continuous residents of Michigan for 12 months. The State of Michigan determines the student's award.

Michigan Merit Award Program

This is a merit-based scholarship program for high school seniors. Students who meet Michigan Education Assessment Program (MEAP) High School Testing (HST) scores and other criteria to be determined by the Michigan Merit Award Board will be eligible for a \$2,500 non need-based scholarship.

Schoolcraft College Institutional Scholarships

The Office of Financial Aid awards a limited number of scholarships each academic year. Students must follow the Financial Aid application process to be considered for these scholarships.

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, these students must submit a seventh-semester high school transcript and a Trustee Scholarship Application; ACT scores or Schoolcraft College assessment test results; and a completed essay on a selected topic.

Students eligible for this scholarship have:

- Been admitted to Schoolcraft College as full-time students
- Demonstrated their ability to complete successfully the curriculum they select
- Attained a minimum overall 3.0 grade-point average during high school.

Schoolcraft College Foundation Scholarships

The Schoolcraft College Foundation has helped thousands of students reach their educational goals through generous public and private scholarship donations. Community members and organizations are encouraged to establish scholarship and endowments honoring special persons or groups while assisting Schoolcraft students.

For available scholarship information, including donor criteria and application dates, contact the Office of Financial Aid for the current Foundation Scholarship Booklet. Requirements for scholarships include submitting high school transcripts for students with fewer than 26 credit hours and all college transcripts, an earned minimum 3.0 grade-point average and a completed Foundation Scholarship application. Application forms and deadline information are available in the Office of Financial Aid at 734-462-4433.

Schoolcraft College Faculty Academic Scholarships

This scholarship program 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.

Student Employment

Federal Work-Study (FWS)

This work-study program provides funds for part-time employment on campus. Employment normally is limited to 20 hours a week for students who enroll for a minimum of six credit hours a semester, maintain satisfactory academic progress, and demonstrate financial need.

Michigan Work-Study (MWS)

This work-study program provides funds for part-time employment on campus. Employment is for students who enroll for a minimum of six credit hours a semester, maintain satisfactory academic progress, demonstrate financial need, are citizens or permanent residents, and have been continuous residents of Michigan for 12 months.

Additional Resources

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.

IRAs

The Taxpayer Relief Act allows early withdrawals from IRAs to pay for qualified higher education expenses. It also established 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.

Michigan Indian Tuition Waiver

Native North Americans of at least one-quarter quantum blood as certified by the person's tribal association and who are legal residents of Michigan may be eligible for a tuition waiver. Additional requirements and information are available through the Office of Financial Aid.



Student Loan Programs

Schoolcraft College Short-Term Loans

Short-term loans are available during walk-in registration. Information and applications are available in the Accounts Receivable Office.

Federal and State Loan Programs

To qualify for a loan, a student must complete federal and Schoolcraft College financial aid application forms. Loan request forms are available from the Office of Financial Aid. All students must participate in entrance counseling and exit interviews as a condition of loan acceptance. Money from federal loans is disbursed in several payments. Student loan checks are held until the first day of classes, and after students have registered and paid for classes. The amount of a loan is determined by students' financial need, other aid received and program limits. The school, not the lender, determines student eligibility for a Federal Stafford or Federal PLUS Loan. If reasons are documented and explained to students in writing, financial aid administrators 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. Interest rates, repayment terms and borrowing limits vary with each loan program.

Federal Stafford Loan Program

This low-interest loan program is available to students who attend college half time or more. The loan is made by a bank, credit union or other lender. To receive a Subsidized Stafford Loan, the student must demonstrate financial need. This loan is exempt from interest accrual until six months after the student ceases attending on at least a half-time basis. The Unsubsidized Stafford Loan has 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 need. The interest rate is variable, but capped at 8.25 percent. The interest rate is determined in June each year.

Federal PLUS Loans

Federal PLUS Loans are for parents who want to borrow money to help pay for their dependent children's education. The interest rate is variable, but capped at 9 percent. The interest rate is determined each June. Parents who have no adverse credit history are eligible for PLUS Loans.

Michigan (MI) Alternative Student Loan Program

The MI-Loan Program is not based on need; however, a student must apply first for need-based aid before applying for a MI-Loan. Loans may range from \$500 up to the full cost of attendance. Information and applications are available by contacting the MI-Higher Education Student Loan Authority, P.O. Box 30051, Lansing, MI 48909, or calling 1-800-877-5659.

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, 106, Title 38) 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 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 dependents of veteran 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

To be considered for financial aid, complete a Schoolcraft College Financial Aid Application and the Free Application for Federal Student Aid (FAFSA) each academic year. Returning students may substitute the Free Application for Federal Student Aid Renewal Application for the FAFSA if they receive this application in the mail from the federal processor. Applications are available in the Office of Financial Aid. A complete application contains the following and is needed before a financial aid determination can be made:

- A Schoolcraft College Financial Aid Application
- Valid results of filing the FAFSA, called Student Aid Reports. Most are received electronically from the federal processor. Results are valid when they contain correct information
- Financial Aid Transcript, for students who transfer to Schoolcraft College in midyear and did or did not receive financial aid at the college from which they are transferring
- Income documentation or other information as requested by the Office of Financial Aid to determine eligibility.

An additional Schoolcraft College Financial Aid Request Form is required for the spring session.

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.

Rights and Responsibilities

All financial aid applicants agree to follow the policies and procedures stipulated by the Office of Financial Aid and the College. These policies and procedures are indicated in the Financial Aid Application, Award Letter, Affidavit of Educational Purpose, the Schoolcraft College Financial Aid Handbook, this catalog and other correspondence provided to the student by the Office of Financial Aid or other provider.

Selection Process

Students are selected to receive financial aid based on program eligibility requirements, deadlines and maintaining satisfactory academic progress. Funds are limited in some programs and awarded to early applicants who meet all requirements. Award amounts are based on demonstrated financial need, attendance, enrollment status, program limitations and the availability of funds. Schoolcraft College awards financial aid in the following order: grants and scholarships; work-study programs; and loan programs. The type of financial aid offered depends on the amount of need, program regulations, outside financial aid, dependency status and availability of funds.

Cost of Attendance for Financial Aid Calculation

Cost of Attendance allowances are required to determine students' eligibility for financial aid. The categories and allowances are listed below. These figures are used only to calculate financial aid eligibility. Actual costs will vary from student to student.

All figures are approximate.

Tuition and Fees as established by the College Board of Trustees

| | |
|--------------------------|---------|
| Room and Board Allowance | \$2,982 |
| Books and Personal | \$1,215 |
| Transportation | \$ 645 |

Returning Schoolcraft College Financial Aid Students

Students must reapply for financial aid each academic year. Program criteria, funding, and maintaining satisfactory academic progress are used in determining eligibility for aid. In addition, students can not owe an overpayment on any federal grant program, be in default on any student loan, or have borrowed in excess of the student loan limits at any institution.

Financial Aid for Transferring Students

Students who will transfer to a four-year university or college should contact the financial aid office of the college they plan to attend for financial aid requirements, deadline dates, and to obtain an application packet. Students usually file and complete aid packets in January or February for the following September. Financial aid is not transferable from one college to another.

Transfer Scholarships

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

Financial Aid Transcripts - Attendance at more than one school within an academic year

Students who attend more than one institution during an academic year will provide Schoolcraft College with a Financial Aid Transcript (FAT) before financial aid can be released. To be valid, the FAT must include information on all semesters a student has, or will attend, the prior institution during the academic year. Students will be ineligible for further financial aid at any institution until any overpayments received are recovered. Forms are available in the Office of Financial Aid.

Attendance at Multiple Institutions

Students cannot receive financial aid at another institution and Schoolcraft College concurrently. Students will be responsible for any overawards and will not be eligible for further aid until the funds are recovered.

Study Abroad

Students may be eligible for federal assistance for attending a study abroad program that is approved for credit by Schoolcraft College.

Withdrawals, Refunds and Return of Title IV Funds

The Schoolcraft College refund policy is printed in the Financial Information section of this catalog. There are additional implications to consider before dropping classes or completely withdrawing from all courses during a semester in which a student receives financial aid. One implication is the effect that withdrawals can have on the student's Financial Aid Academic Progress. The complete policy is provided in the section below. Another consideration is the Return of Title IV Funds Policy. Title IV programs include Federal Stafford Loans, Federal PLUS loans, Federal Pell Grants, and Federal Supplemental Educational Opportunity Grants. Return of Title IV Funds is the process of calculating the student's earned and unearned portion of Title IV aid when a student completely withdraws from classes before 60 percent of the semester has passed. The calculation can result in the student owing money to a federal program. Owing money to a federal program may prevent the student from receiving further aid. Complete information and examples of how the Return of Title IV Funds is calculated can be obtained in the Office of Financial Aid. The Return of Title IV Funds Policy begins with the summer 2000 session.

- b. Have a cumulative Schoolcraft College grade-point average of at least 2.00, and
- c. 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. In addition, spring session applicants are reviewed for continued eligibility. Applicants who have not made satisfactory academic progress are notified by mail.

3. Probation

Financial aid applicants who do not meet the eligibility standard will be granted a semester of probationary financial aid to move toward acceptable GPA or completion rates. Students who fail to make satisfactory academic progress after the probationary semester 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 who has been terminated from financial aid may appeal in writing. All appeals should include appropriate documentation. Extenuating circumstances considered for appeals include personal illness or accident, serious illness or death within an immediate family, 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. Appeal 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.)

- a. 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 placed on a probationary semester of aid. Students on probation will be monitored and evaluated one semester at a time, or
- b. The student has taken, without funding from the Office of Financial Aid, enough credit hours to meet the GPA and completion rate requirements. The student will be reinstated without probation, or
- c. The student meets the GPA and completion rate requirements after a probationary semester. The student will be reinstated without probation.

6. Grades and Successful Completion

Credit hours attempted include all grades recorded on the transcript of 4.00 through 0.00, NC, W and I. Repeated courses are identified as NC on the transcript and are considered as credit hours attempted. Successful grades are 1.00 through 4.00. Unsuccessful grades are 0.00, W, NC and I. Unsuccessful grades are considered attempted and not passed for purposes of determining satisfactory academic progress.

7. Audits and Credit by Exam

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

Financial Aid Academic Progress Policy

Schoolcraft College Academic Progress Policy

In addition to meeting individual financial aid program requirements, a student has 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 include reviewing enrollment periods in which the student did not receive aid, as well as the semesters they did receive aid.

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

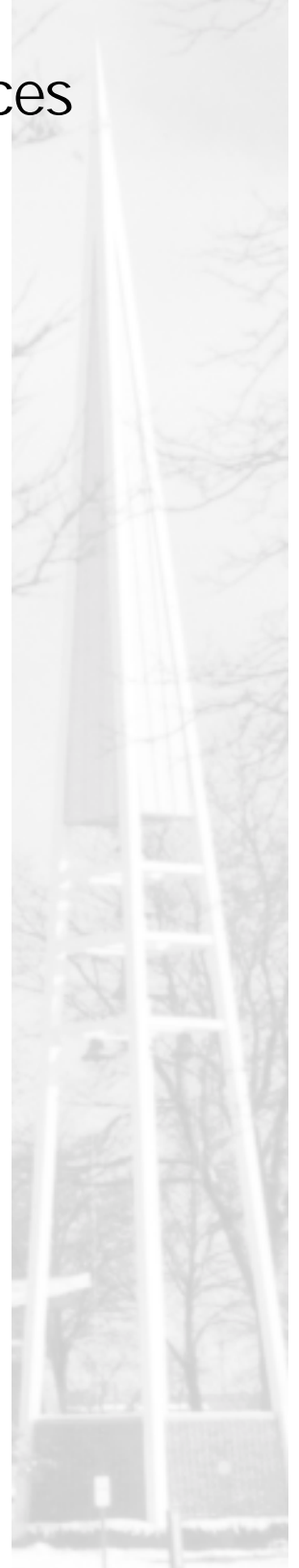
1. Eligibility Requirement – A student must:

- a. Have successfully completed at least 67 percent of all Schoolcraft College credit hours attempted or be a first-time student at Schoolcraft College, and



Schoolcraft College

Academic Support Services



Academic Support Services

Career Planning and Placement Center

McDowell Center Room 235
734-462-4421

Students are invited to visit the Career Planning and Placement Center (CPPC) for career and employment information.

Career Counseling

Students can visit CPPC for help in making career choices. Career decision-making tools are available to help students identify their interests, skills and abilities. Students can stop by or call to make an appointment with a career counselor.

Occupational Resources

The Center offers a wealth of resources to help students locate occupational descriptions, job outlook, wage data and current employment information. Students can use the Internet to gather worldwide career and employment information.

Employment Services

Schoolcraft College students and graduates may use CPPC employment services to look for full-time or part-time employment. On-campus job listings for students are located in the CPPC office. Students can obtain help with resume preparation and interviewing tips.

Counseling Center

McDowell Center Room 275
734-462-4429

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

- Deciding on a major
- Discussing curriculum
- Transfer planning
- Help or referrals in dealing with personal issues
- Managing time
- Educational planning
- Course scheduling
- Clarifying career goals
- Graduation Audits.

Transfer information and curriculum guides are available for students in the Counseling Center. Counselors and staff meet regularly with senior colleges and universities to establish and maintain transfer agreements that will assist students in making a seamless transition to the senior institutions. Information on career certificate and associate degree programs is also available in the Counseling Center.

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

Students who work closely with a counselor for educational planning are more likely to succeed in college and achieve their educational goals. Counselors can be seen by appointment except during the Walk-in Registration period before classes begin. Schedule early for best results.

The counseling staff offers a two-credit career development class, HDS 110, Career Decision Making.

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, mail and in person. Current semester schedules contain appropriate registration information.

The Registrar's Office is responsible for maintaining all student academic records. Other office services include enrollment verifications, student loan deferment processing, transfer course evaluations and guest application processing.

Learning Assistance Center

McDowell Center Room 210
734-462-4436

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

The Learning Assistance Center (LAC) offers academic support services to students and members of the community. Its primary function is to help students be as successful as possible in educational, occupational and personal endeavors. Emphasis is placed on the student becoming an active learner.

Tutorial Assistance

The College provides free peer tutoring for many courses. There is drop-in tutoring for students who may benefit from occasional help. Copies of the drop-in schedule are available from LAC folders on Student Activities bulletin boards around campus or at the LAC. Individualized tutoring is available to students experiencing difficulty with course work who may need more extensive assistance. Students first must meet with a faculty facilitator in the LAC to receive approval for individual tutoring. Students are invited to take advantage of the LAC's Final Math Reviews held at the end of the fall, winter and spring semesters. These intensive reviews follow the review packets for many of the College's math classes. Look for dates and times on the LAC bulletin board, across from the Doc-U-Center.

PAL (Peer-Assisted Learning) Program

The Peer-Assisted Learning Program at Schoolcraft College pairs participating instructors with former top students to provide additional assistance to current students desiring academic help. Under the direction of the instructor, the PAL meets students outside the classroom to clarify and reinforce lecture material, laboratory assignments, written assignments and text readings, as well as conduct informal discussions and test preparation sessions. Students can take advantage of this special opportunity to enhance their success by calling the LAC for names of participating instructors.

Writing Fellows

This writing assistance program provides technical help in all phases of composition. Writing fellows are honor students, trained to help organize, evaluate, and provide constructive feedback on papers in any subject area. Writing fellows do not edit, but help students with their writing. Though writing fellows are linked to specific classes in many disciplines, they are available in the LAC to all students on a drop-in basis. Call the LAC for more information.

Math Review Videos

The LAC has a set of instructional math videos for Math 45, Math 47, Math 51, Math 112, Math 119 and Math 128. These videos can be checked out for two days.

Computer Laboratory

The Center has a computer lab available for students, with software designed to increase reading speed and accuracy and help with test-taking skills, writing skills and basic composition skills. Other software is used to enhance developmental English, math and reading classes. Contact the LAC for further information.

Study Skills

Study skills instruction is available to students who want to improve their textbook reading, notetaking, memory retention, time management or test-taking skills. Students who wish to improve their study skills may contact the LAC and arrange for consultation with a faculty facilitator. The faculty facilitator may recommend enrolling in collegiate skills courses to improve reading and study skills.

Students with Disabilities

The LAC provides accommodations for students with a variety of documented disabilities — physical, learning and emotional. Any individual attending the College who needs accommodations should contact the LAC at 734-462-4436. Services are designed to meet individual needs and include, but are not limited to, counseling, faculty liaison, adapting test procedures, modifying learning stations, referrals for services or information, tutoring, textbooks on tape, application assistance, interpreters, notetakers, and identifying specialized equipment and furniture needs.

Limited English Proficiency

Students for whom English is a second language can be assured that a lack of English language skills will not prevent admission to the College. Although most college courses require English proficiency, specific classes for international students include English 052, English Grammar for Second Language Students, and English as a Second Language through Continuing Education Services. An interactive computer program and individual tutoring are available. There is additional information for students with limited English proficiency in the class schedule.

Test Preparation Workshops

Test preparation workshops that emphasize test taking strategies and alleviating test anxiety are scheduled on a regular basis. Preparation workshops for standardized national tests include classes for SAT, ACT, PSAT, GRE, GMAT, LSAT, CLEP, TOEFL and college placement tests.

Assessment Center (Testing Services)

McDowell Center Room 220
734-462-4806

The Schoolcraft College Assessment Center offers comprehensive testing to students, faculty, business and industry, groups and individuals. The following is a detailed description of these services.

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 for the timed ASSET test of basic skills, or the untimed Computerized Placement Testing (CPT) program. No appointment is necessary. As an alternative to placement testing, students may submit ACT scores up to three years old.

Make-up Testing and Distance Learning

Students sometimes miss a test because of absence, illness, or other extenuating circumstances. Arrangements can be made with instructors for make-up testing in the Center. Also, testing for students in Distance Learning programs is available during Center hours. In addition, accommodations can be provided for students requesting alternative testing arrangements such as additional time, test readers and writers, and/or computer-assisted writing.

CLEP (College-Level Examination Program)

CLEP is a national College Board credit-by-exam program available to Schoolcraft College students and members of the community. To obtain credit for work experience and skills, the student must achieve the minimum scaled score recommended by the American Council on Education (ACE). Students may choose from 29 Subject Exams and five General Examinations. Exams are offered in the Center on the second Saturday of each month.

DANTES

The Dantes Subject Standardized Test is a nationally recognized testing program that affords individuals the opportunity to receive college credit for learning acquired outside the traditional college classroom. More than 30 test titles in the areas of social science, business, mathematics, applied technology, humanities and physical science are available. To obtain credit, the student must achieve the minimum scaled score recommended by the American Council on Education (ACE). Contact the Center to schedule testing.

AP (Advanced Placement) Examinations

Schoolcraft College will award college credit for satisfactory scores on tests taken through the College Board AP Program. To obtain credit, students must score 3 or higher on each AP exam. Students requesting such credit should have their Advanced Placement scores sent to the Schoolcraft College Registrar's Office.

GED (General Educational Development Test)

The GED is a series of five tests that measure knowledge and skills. They include literature and art, mathematics, social studies, science and writing skills. The five tests must be taken in a two-day sequence and candidates must be 18 years old or their high school class must have graduated. GED testing takes place on the third Wednesday and Thursday of each month, excluding December.

Test Proctoring

Test proctoring is available for individuals requiring a proctor site for other institutions and correspondence programs.

NET

NET (Nurse Entrance Test) is required as a pre-requisite for the Nursing Program.

Business and Industry Assessment

A variety of testing for required employment proficiencies is available on site or in the Assessment Center for a group or an individual. Assessment can be provided for pre-employment, determining basic skills, entry-level skills and promotional eligibility. Area businesses are encouraged to visit or call for additional information.

College Libraries

Bradner Library, Livonia Campus
734-462-4440

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

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

Schoolcraft students, faculty, and staff may use and borrow books in both libraries. Community members may inquire about their eligibility to borrow under the statewide MichiCard borrowing program.

Librarians are available to assist users in locating books, journal articles, pamphlets, U.S. government publications and Internet-based resources. They also offer library tours and introductions to using the Internet by class request. Contact either library for more information.

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

| Bradner Library | Radcliff Library |
|----------------------------------|---|
| Mon. - Thurs.: 8:00 am - 9:00 pm | Mon. - Thurs.: 8:30 am - 9:00 pm |
| Friday: 8:00 am - 4:00 pm | Friday: 8:30 am - 12:30 pm and 5:00 pm - 9:00 pm |
| Saturday: Noon - 5:00 pm | Saturday: 8:30 am - 3:00 pm |
| Sunday: Noon - 5:00 pm | Sunday: Closed |

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

College Archives

Bradner Library Room 181
734-462-4400 ext. 5313

The Archives collects, preserves, and makes accessible Schoolcraft's historical records and memorabilia. The collections are available to faculty, staff, students and other researchers who wish to study the College's history. Included in the collections are early 1960s documents about the founding of the College, Board of Trustees' minutes, Staff Weekly newsletters and the student newspaper from the Commuter to the Connection, plus many brochures, pamphlets and photographs. The Archives houses the Sam Hudson Collection, which deals with the early history of Plymouth, Michigan. Hours of operation are Tuesday - Friday, 10:00 am to 4:30 pm or by appointment.

Academic Computer Use

McDowell Center Room 100
Radcliff Center Room 415
Computer Lab Hot Line for Both Campuses
734-461-4400 ext. 5521

Schoolcraft College offers its students access to more computer labs than any community college in Michigan. We constantly update our software and purchase new hardware in an on-going effort to keep our students equipped with the latest technology.

Schoolcraft College Academic Computing Lab use policy states that students:

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

Certification may be obtained by:

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

For online classes, students must have a working knowledge of computers, and will need a computer with modem and 4-speed CD-ROM; an Internet Service Provider (ISP); Windows 95 or higher; professional version of Office 95 or higher; and Netscape 3.0 or higher, or Internet Explorer 4.1 or higher.

For online classes, Windows 95 meets the minimum requirements. Windows 98 is recommended. For CIS120, MS Office 97 is required.



Women's Resource Center

McDowell Center Room 225
734-462-4443

Radcliff Center Room 120
734-462-4400 ext. 6051

Introduction

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

Appointments are not required. For more information, stop in .

During regular hours peer counselors are available at the WRC. They can assist an individual who wishes to:

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

Volunteer peer counselors are specially trained in listening skills. They serve both walk-in and telephone clients at the McDowell Center.

A wide variety of free pamphlets, brochures and articles are available at the Center.

Special WRC Programs and Services

From Chocolate Chips to Micro Chips (CHIPS):

A Program for Women in Transition

This one-stop program assists women in transition by providing assertiveness training, guided career exploration, job-related skills identification, resume writing, interviewing techniques, job-hunting strategies, educational counseling, assistance in applying for school-related financial aid, a support group with other women and job placement guidance. Keyboarding and computer orientation classes are offered, and a clothing boutique is available for participants. Phase II of the CHIPS program includes the Microsoft Word 97/Windows (OIS 165) class.

Divorce Support Group

A divorce support group meets the second and fourth Tuesday of each month. There are guided group discussions and presentations by lawyers, therapists, mediators and financial planners. There is no fee to attend and participants need not preregister. A schedule of speakers is available quarterly. The first Monday of each month a Certified Divorce Planner is available free of charge. The third Monday of each month, a lawyer is available for free consultations. These consultations are scheduled from 5:00 to 7:00 pm on a first-come, first-served basis. Call for more information.

Single Parent/Homemaker and Sex Equity Program

This grant, funded by the Michigan Department of Education, provides tuition assistance, support services, and programs for single parents, homemakers, displaced homemakers, and nontraditional job seekers who demonstrate financial need and are enrolled in vocational education and/or career guidance programs. Contact the Women's Resource Center for more details.



WRC Scholarships

Women's Resource Center scholarships are available to women who do not qualify for federal or state financial aid. The WRC works vigorously to insure scholarships are available to fill as many requests as possible. A scholarship application is available at the WRC.

Luncheon Series

The WRC sponsors six luncheons each year, featuring speakers on a variety of topics. Call for a current schedule.

Thinking About College?

This is a day-long opportunity to ask questions about the College entry/re-entry process including admission, orientation, registration, financial aid, childcare, learning assistance, career planning and counseling services at Schoolcraft College. We include interaction with selected faculty members.

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 events and are accessible to the community.

Doc-U-Center

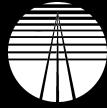
Liberal Arts Room 120
734-462-4400 ext. 5304

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

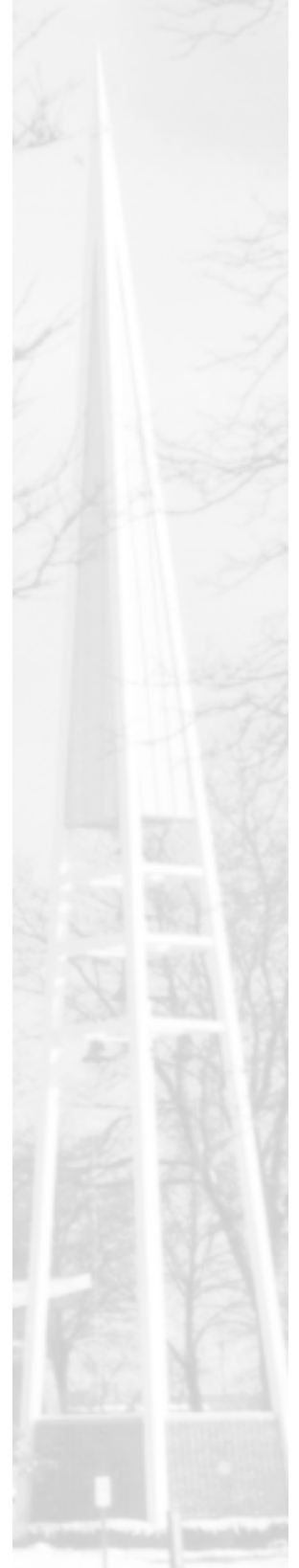
Bradner Library Room 500
734-462-4400 ext. 5330

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. Video and audio production, tape dubbing, videoconferencing, the interactive video classroom and multimedia presentation services are available.



Schoolcraft College

Campus Life Services and Activities



Campus Life — Services and Activities

Student Identification

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

Food Service

Waterman Campus Center
Option's Snack Shop at Radcliff Center

Food Service offers a variety of meal choices prepared daily, from sandwiches and burgers to a fresh salad bar, homemade soups, and full meals. Food Service is located in the Waterman Campus Center. Fall and winter semester hours are 8:00 a.m. until 2:00 p.m. Spring and summer sessions hours are 8:00 a.m. until 1:00 p.m. Monday through Thursday. Food service is available at the Ocelot Grill in the lower level of Waterman. Hours are from 10:00 a.m. until 7:00 p.m. during the fall and winter semesters. Vending machines are available in all classroom buildings. Radcliff Center provides food service in the Option's snack shop; fresh soups and sandwiches are served daily. Option's is open Monday through Thursday from 8:00 a.m. to 8:30 p.m. and on Friday from 8:00 a.m. to 1:00 p.m. Food Service provides full-service catering for meetings and large functions.

Children's Center

South Parking Lot Livonia Campus
734-462-4442

The Schoolcraft College Children's Center is a pleasant, well-supervised educational facility, accredited by the National Association for the Education of Young Children. Our program 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 is the training facility for Schoolcraft College's Child Care and Development Program and is under the direction of College faculty and trained teachers.

The Center is open from 7:00 a.m. to 6:00 p.m. Monday through Friday. Parents who have questions or wish to register their children are invited to call the Center. The Center operates year-round. Costs and fees are listed in the current credit class schedule and may change without notice.

College Bookstores

Livonia Campus
734-462-4409

Radcliff Campus
734-462-4778

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

Health Service

Waterman Campus Center Room 150
734-462-4400 ext. 5050

Services include health counseling, treatment for minor illnesses or injuries, health insurance information, referrals to community resources, and a cot room for rest. Hours are Monday - Thursday from 8:00 a.m. to 4:30 p.m. for walk-in assistance.

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.

When students are absent for health reasons, or anticipate that a health-related absence will last more than three days, they should report the absence to Health Service. Official notices will be sent to their instructors and the Registrar. Absences of fewer than three days should be resolved between the student and the instructor. Students should contact their instructors directly to make up homework assignments. If students are unable to contact their instructors, Health Service will ask the instructors to contact the students or their families. Students are encouraged to notify Health Service regarding any medical problems.

Health Insurance

Hospitalization and accident insurance is available for full- and part-time students. Information on this program is available in the Health Service Office. Insurance brochures are available at: Health Service, Admissions Office, Business Office, Counseling Center, Registrar's Office, Women's Resource Center and the Radcliff Center Office.

Access to the Physical Fitness Facility

Physical Education Department
734-462-4400 ext. 5249

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

Student Activities Office

Waterman Campus Center Room 169
734-461-4422

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.

Athletics

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



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 are available in the Student Activities Office. Campus clubs and organizations at Schoolcraft College are:

- African-American Student Association
- Beekeepers Club
- Chess Club
- Gay/Straight Alliance
- Gourmet Club
- Health Information Technology Club
- International Students Organization
- Intervarsity Christian Club
- Lady Ocelots Dance Team
- Music Club
- National Computer Graphics Association
- Occupational Therapy Club
- Phi Theta Kappa
- Quilting Club
- Edgerunners Ski Club
- Student Activities Board

The Connection - Schoolcraft's Student Newspaper

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

Performing Arts Groups

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

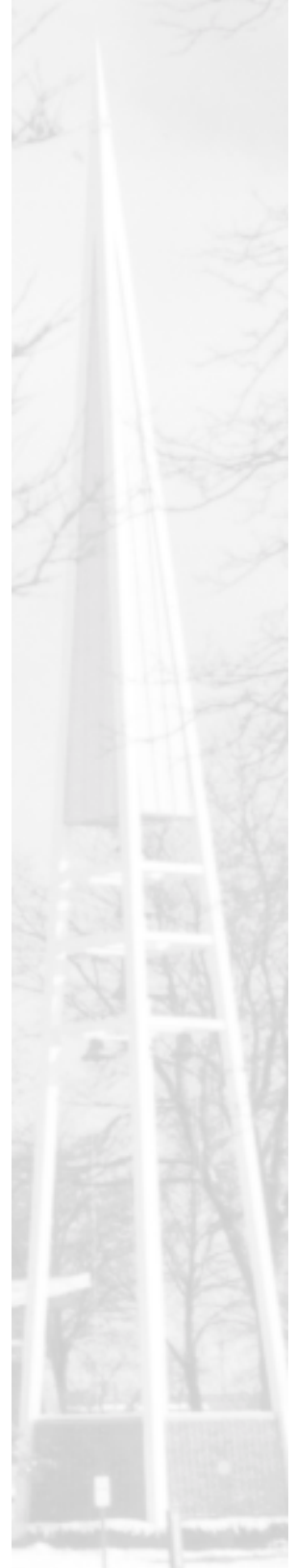
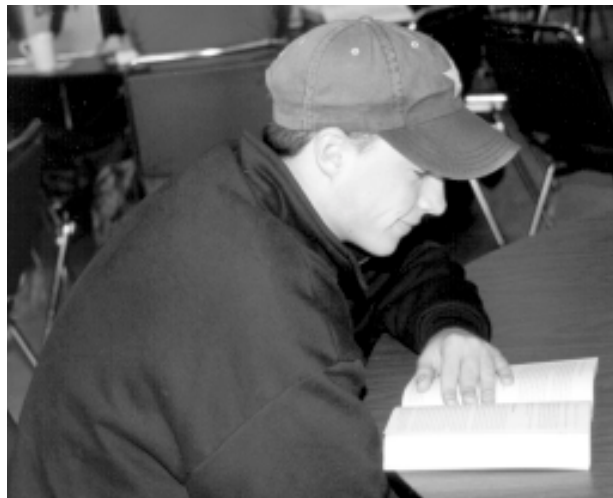
Phi Theta Kappa

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.



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 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 which 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 of 1974 grants Schoolcraft College students the right to have personal information from their College records withheld from any individual, agency or organization without the student's written consent, except for a specified list of exceptions.

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. The right to a 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, 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, degrees and awards received, and the most recent educational agency or institution attended. The College can release such public information at any time, unless the Registrar has received a prior written objection from the student specifying information which should not be released. This written objection from the student must be received by the Registrar no later than 10 working days after classes begin in any semester or session.

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 such as WJR and WWJ and local television stations 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 Office of Admissions and the Office of the Registrar.

Handicapped Students

Schoolcraft College does not discriminate on the basis of handicap 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 for Business Services, whose office is in the Administration Building. Students may request services by contacting the Learning Assistance Center in the McDowell Center.

Lost and Found

All lost items should be given to the Public Safety Department on the Main Campus, or to the Central Office in one of the off-campus centers where it will be recorded and held. For rules on disposition of these articles, see College Policy 1070.12, or call Public Safety at 734-462-4400, ext. 5424.

Parking Regulations

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

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

Schoolcraft Public Safety officers are authorized to write City of Livonia traffic citations by authority granted under Title VI, Chapter I, of the Livonia Code. Tickets are payable at the 16th District Court, 15140 Farmington Road, Livonia, Michigan. Information regarding the fines for violations can be obtained by calling the court at 734-522-5900. 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 734-422-1122.

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 for Business Services.

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.

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 Dean of Student Services is Schoolcraft's Title IX coordinator. Students wishing further information regarding this act may call 734-462-4431.

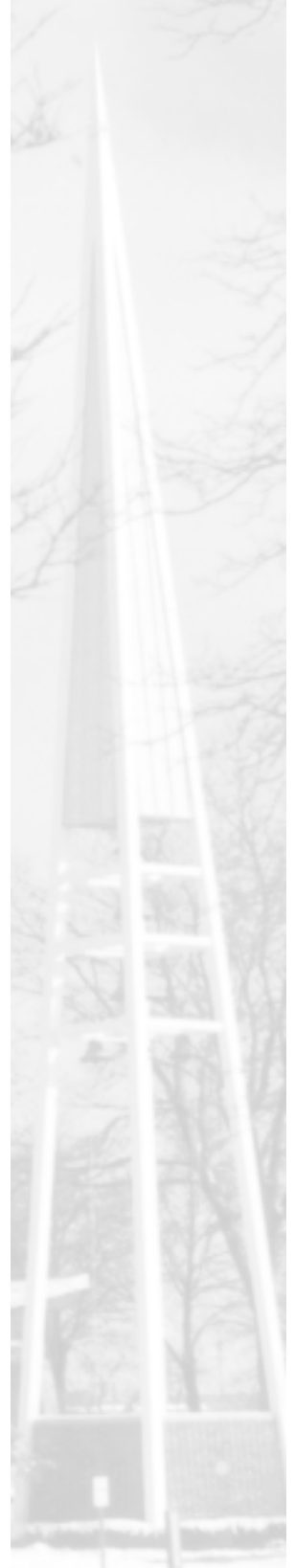
Traffic Regulations

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 Matters



Academic Matters

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 telecourses, audio courses, online Internet courses, and other media-assisted instruction. There are classes offered at convenient community locations or on weekends to accommodate student schedules. Qualified students may earn credit through independent study under the direction of a faculty member.

Distance Learning

Distance learning, which includes courses on tape, television and the Internet, offers students a flexible form of education creating options of where and when they can learn. These classes expand learning opportunities while allowing students to balance educational demands with heavy work, travel or family responsibilities. Students receive regular college credit for distance learning classes. Distance learning students study independently, visiting the campus for a number of review sessions and examinations. The keys to successful distance learning are desire, motivation, discipline and effective time management.

Telecourses or TV courses are the most traditional form of distance learning. Students view professionally produced and academically sound video lessons on television, supplemented with a textbook and study guide. Lectures are presented on WTVS Channel 56, participating cable company channels, or through video tape check out from the Library.

Audio courses are similar to telecourses, using audio tapes to present course materials. A textbook and study guide are required for each audio course.

Online courses enable students to earn course credit from their home or during leisure time through computer connections. Students must have access to a computer with a modem, a CD ROM, the latest version of either Netscape or Explorer, and an Internet Service Provider. Students come to campus one time for the general orientation session where they receive information about online courses, including user IDs and passwords. Hands-on activities are designed to help students gain a familiarity with the online processes and course requirements. Following the orientation, all 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 discussion is required. Text materials accompany each course.

Interactive Television (ITV) courses meet on campus in the College's ITV classroom. The instructor and students interact with students from another site over interactive television. Textbooks and supplemental materials are available in the College Bookstore.

Students are admitted and register for distance learning courses as they would for any credit course Schoolcraft College offers. There is a special fee for some distance learning courses. The first class session and orientation acquaint students with the overall course requirements, review sessions, testing dates and other important information.

OMNIBUS

The Online Multi-degrees in National and International Business (OMNIBUS) is a challenging four-year online degree program designed for working professionals who want to earn associate, bachelor's and master's degrees from their home or other computer workstations. This online program, cosponsored by Schoolcraft College and Madonna University, culminates in a master of business administration degree. Classes are application-based and allow working professionals to earn all three degrees in a four-year period. Students work independently and in teams, communicating online with each other and faculty. For more information, call 734-462-4599.

Open Entry/Open Exit Classes

The College offers a limited number of computer classes aimed at individuals who are accelerating their education and can complete course work without being in a traditional classroom setting. Within a prescribed time period, students may register and complete these courses at their own pace. The work can be done at home, during leisure activities or in computer labs. Instructors are available in College computer labs at regularly scheduled times to assist students.

Independent Learning

The college provides students an opportunity to earn credit for certain courses through independent study. The associate dean of each discipline will list available courses. 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. Students should contact the Associate Dean of Liberal Arts/Independent and Distance Learning for more information.

Schoolcraft Scholars

Schoolcraft Scholars, an honors program emphasizing service learning, is offered to qualified students. A colloquium in humanities introduces honors students to community organizations, and a capstone course in sociology supports the completion of extensive service projects. During the two-year program, honors students attend numerous fieldtrips, lectures and workshops with honors faculty. They complete honors projects in four regular courses, and provide 100 hours of service to the College and community. Schoolcraft Scholars are eligible for scholarship funds for all honors courses.

Educational and Community Services

Business and Industrial Services

McDowell Center Room 315
734-462-4441

The Office for Business and Industrial Services responds to specific needs of the business community.

Contract Education

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

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

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

Business Assistance Services

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

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

Small business start-up help is available from our entrepreneur service. Additional services include direct consultations and group training sessions.

Related Trades Instruction

Apprentices, Employees-in-Training, Trainees and Tradespersons

Related Trades Instruction is provided for more than 40 trades. This instruction is developed with the U.S. Department of Labor's Bureau of Apprenticeship and Training, the industrial organization involved, and the labor unions that represent the apprenticeship areas.

Associate in Applied Science Degrees for Journeymen

Persons who have satisfactorily completed Related Trade Instruction programs may receive credit toward certain associate degrees in applied science. These associate degree programs are:

- Computer Integrated Manufacturing (Automation/Electromechanical/Robotics) - CIM
- Biomedical Engineering Technologist - BMET
- Computer Aided Design/Mechanical Design - CAD
- Computer Aided Design/Tool Design - CAD
- Electronic Technology - ELECT
- Manufacturing & Production Planning - MFG
- Computer Assisted Manufacturing - CAM
- Metallurgy & Materials Science - MET.

Students may receive credit by equivalency for other work experiences following a committee review and evaluation of application materials. For additional information, contact the Related Trades Instruction coordinator at 734-462-4457.



Continuing Education Services

Continuing Education Center
734-462-4448

Continuing Education

Continuing Education Services (CES) offers a wide range of continuing education activities designed to meet the ever-changing educational needs of the community. These experiences provide opportunities to gain new knowledge and skills demanded by innovation in today's business world, and avenues to explore personal development.

Courses, seminars, workshops and conferences are available to enhance the quality of life in the community and contribute to personal or professional growth.

Representative programs include:

- Comprehensive offerings designed for career-minded students in business management, computer software programs, and financial planning, including a selection of online courses
- Certification and licensure classes designed for professional and technical personnel in fields such as nursing, K-12 teaching and school administration, real estate licensure preparation, culinary arts and secretarial certification
- Small business management seminars designed to stimulate entrepreneurial leadership and local economic development
- Personal development workshops, as well as courses and programs designed to enhance the quality of life in the community
- Retired Senior Volunteer Program (RSVP) designed to give senior adults an opportunity to work with students and staff on a variety of projects
- Kids on Campus Program designed to provide extensive enrichment programs and academically enhanced activities for children, that serves more than 2,000 children annually
- Wellness and physical fitness programs designed for health-conscious individuals. interested in dance, fitness, self-defense, swimming and other recreational activities.

Continuing education classes are open to students of all ages and do not require a formal admissions process. Instructors are professionals who bring a special expertise to the learning process.

Students receive nationally recognized Continuing Education Units (CEUs) for most continuing education classes. Students in some specialized courses receive Certificates of Accomplishment.

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

| | |
|---------------------|--|
| 100 percent refunds | Approved only if the College cancels a class |
| 90 percent refund | Before first class session |
| 50 percent refund | Before second class session |
| No refunds | After second class session. |

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

Community Services

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

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



The Kids on Campus program is the 1998 recipient of a national award from the National Counsel for continuing Education and Training (NCCET).

Academic Policies

Attendance Procedures

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

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

Credit Hours

Normally, students receive one hour of credit for each hour required in class per week during a 16-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 averages 12 to 15 semester credit hours. Students must receive permission from their counselors to elect more than 18 hours. Normally, students eligible for overloads earned a minimum grade-point average of 3.0 in the previous semester at Schoolcraft College. Students must obtain permission from a counselor before the beginning of each semester during which they wish to carry an increased load.

Course Load - Spring and Summer Sessions

The full-time course load in the spring and summer sessions ranges from six to eight 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 the United States Air Force Community College, other colleges and universities
- The College Level Examination Program (CLEP)
- The National Occupational Competency Testing Institute (NOCTI).

Schoolcraft College requires residency credit hour minimums.

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.

Final Examinations

To earn credit for courses, all credit class students take final examinations on the dates published in the current semester class schedule. Associate deans may make exceptions to this college-wide regulation within their divisions.



Student Records

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

Transcript Request

To forward grade transcripts to another educational institution or a business, students must make a written request or complete a request form in the Registrar's Office. Transcripts are issued only after students have fulfilled all financial obligations to the College. Only transcripts bearing the Schoolcraft College seal and the Registrar's signature are considered official. There is no charge for official transcripts.

Grade Reports

Grade reports are issued at the end of each semester or session and are mailed to the student's residence. If grade reports are returned to the Registrar due to postal address problems, students must show proper identification to claim grades at the Registrar's Office. If a change of address has occurred affecting residency, tuition adjustments will be made at this time for current and subsequent semesters. Grade reports for students who have financial and other obligations to the College are not mailed 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 10th week of fall or winter semester, and through the 5th week of the spring and summer session. 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 16 weeks have prorated "W" dates.

Issuance of an Incomplete Grade

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

Eligibility for Athletics

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

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 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:

| <u>Class Elected</u> | <u>Course Grade</u> | | | | <u>Grade</u> |
|-----------------------|------------------------|---|-----|---|--------------------------------|
| | <u>Credit Received</u> | | | | <u>Points</u> |
| | <u>Hours</u> | | | | <u>Earned</u> |
| English 101 | 3 | X | 2.2 | = | 6.6 |
| Political Science 105 | 3 | X | 3.4 | = | 10.2 |
| Mathematics 112 | 5 | X | 2.1 | = | 10.5 |
| Chemistry 111 | 4 | X | 2.7 | = | 10.8 |
| Total Credits | 15 | | | | Total Grade Points 38.1 |

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:

$$38.1 / 15 = 2.540 \text{ grade-point average}$$

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 may petition the Dean of Instruction 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 through written appeal to the appropriate associate dean. The appeal must be made in writing and should include the following:

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

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

Step III

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

Step IV

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

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

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

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

Expedited Process

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

Step I

Student 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

The student may appeal in writing directly to the Dean of Student Services. The written appeal should include the following:

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

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

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

Graduation Requirements

Degree Requirements

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

In keeping with this philosophy, all entering students working toward an associate degree at Schoolcraft College must complete courses that fulfill the College's 10 General Education Goals. The General Education Goals ensure that Schoolcraft College graduates have basic competence in mathematics, writing, oral communication, reasoning, computer technology, science, personal development, the arts and social sciences.

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 which require more than 60 credit hours.

In addition:

- The last 15 credit hours must be earned at Schoolcraft or a minimum of 50 credit hours earned at Schoolcraft. Exceptions may be considered by the Dean of Instruction
- Students must complete the 10 General Education Goals required for their associate degree
- During their last semester, students must file the Intent to Graduate form before the published deadline date. (Please review a current Schedule of Classes for dates). The College Registrar will verify all requests to determine compliance with course requirements, general education goals, and validity of course waivers, if applicable.

Multiple Degree Requirements

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

Certificates of Program Completion

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

Pre-Associate Certificates

A pre-associate certificate is awarded upon satisfactory completion of a program of study with a minimum 2.0 grade-point average. Pre-associate certificates do not require completing General Education Goals. 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 with a minimum 2.0 grade-point average, after earning an associate degree from Schoolcraft or another college. The courses within the post-associate certificate are designed to provide higher level specialized training in job-related skills.

Graduation Procedures

When applying for graduation, students must:

- Complete degree requirements from the current catalog (year of graduation)
- OR
- Complete degree requirements from the catalog in effect the year a student first entered Schoolcraft College, or a subsequent catalog 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.

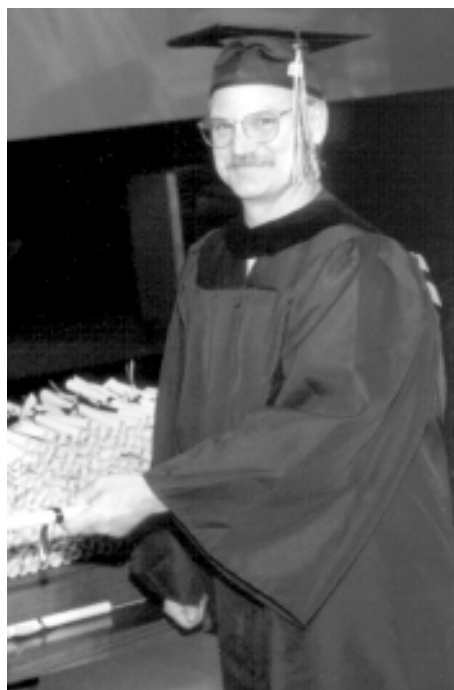
Any changes in these requirements must be approved in writing by the appropriate instructional administrator.

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. The Intent to Graduate form is returned to the Registrar's Office.

Commencement - Graduation

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



Associate Degree General Education Goals

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

The College requires candidates for all associate degrees to have basic competence in ten general areas. Courses in these areas constitute Schoolcraft's General Education Goals requirement. The

areas are math, writing, speaking and listening, reasoning, computer and information technology, science, the individual, arts and humanities, social institutions, and international perspectives and diversity. Some courses apply only to a particular associate degree program, and students may substitute a department's more advanced course to satisfy a General Education Goal requirement. Certain courses fulfill two goals.

A Schoolcraft College graduate with an associate degree should be able to meet the following goals:

Math

Goal 1. Understand and perform computations using the concepts of collegiate level mathematics. Perform, with reasonable accuracy, the computations necessary to master mathematics courses at or above the 100 level.

Select one course.

Accounting 103

Culinary Arts only

Accounting 201

Accounting 202

Business 105

Electronics 128

Electronics, Computer Integrated Manufacturing, Biomedical Engineering Technologist, Computer Service, and Laser Technology majors only.

Mathematics 105

Elementary Education majors only.

Mathematics 110

Mathematics 112

Nursing 116

Nursing majors only.

Writing

Goal 2. Use written English competently. Organize and develop ideas into grammatical sentences and effective paragraphs; understand, conduct and employ basic research methods.

Select one combination of courses.

English 100 & 106

Computer Service, Computer Aided Design: Tool/Mechanical, Culinary Arts, Culinary Management, and Manufacturing for Quality Production majors only.

English 100 & 116

Computer Integrated Manufacturing, Biomedical Engineering Technologist, Computer Service, Cosmetology Management, Electronics, Laser Technology, Occupational Therapy Assistant, Child Care and Development, and Correctional Science majors only.

English 101 & English 102

English 101 & 106

Accounting, Small Business Management, Marketing and Applied Management, Medical Assisting, Correctional Science, Child Care: both programs, Office Information Systems, and Computer Information Systems majors only.

English 107

Broadcast Communications majors only.

Speaking and Listening

Goal 3. Speak and listen competently and in an organized and critical manner with individuals in different situations.

Select one course or a combination of courses.

Communications 103

English 100

French 101 & French 102

Medical Assisting 180

Medical Assisting majors only.

Nursing 122

Nursing majors only.

Occupational Therapy 214

Occupational Therapy Assistant majors only.

Spanish 101 & Spanish 102

Reasoning

Goal 4. Use systematic, critical and creative processes, drawing from knowledge of appropriate disciplines, to identify problems, analyze alternate solutions, and make decisions.

Select one course.

Biology 101

Chemistry 111

Collegiate Skills 101

Correctional Science 261

Correctional Science majors only.

Criminal Justice 211

Criminal Justice majors only.

Electronics 127

Electronics majors only.

English 205

English 206

Geology 133

History 134

History 137

History 138

History 141

Nursing 120

Nursing majors only.

Occupational Therapy 204

Occupational Therapy Assistant majors only.

Philosophy 243

Philosophy 247

Physics 104

Physics 123

Physics 181

Political Science 105

Computer and Information Technology

Goal 5. Understand the importance of information technology in today's society; demonstrate an ability to use computer systems to achieve professional, educational and personal objectives, respecting the legal and intellectual rights of individuals and organizations.

Select one course.

Allied Health Education 101

Computer Aided Design 103

Computer Graphics Technology

All computer courses

Computer Info. Systems 105

Computer Info. Systems 115

Computer Info. Systems 120

Computer Info. Systems 129

Computer Service 126

Computer Service, Computer Integrated Manufacturing, Biomedical Engineering Technologist, Electronics, and Laser Technology majors only.

Culinary Arts 243

Culinary Arts majors only.

Occupational Therapy 216

Occupational Therapy Assistant majors only.

Office Info. Systems 100

Office Info. Systems 145

Office Info. Systems 165

Science

Goal 6. Understand the philosophy of science and the principles that are basic to scientific inquiry and research.*Select one course.*

| | |
|---|--------------------------------------|
| Biology 101 | Electronics 127 |
| Biology 103 | Electronics, Computer Service, |
| Biology 105 | Computer Integrated Manufacturing, |
| Biology 115 | Biomedical Engineering Technologist, |
| Business 217 | and Laser Technology majors only. |
| Small Business Management, General | Fire 200 |
| Business and Marketing and Applied | Geography 105 |
| Management majors only. | Geography 130 |
| Chemistry 111 | Geography 212 |
| Computer Info. Systems 250 | Geology 133 |
| Computer Information Systems majors only. | Metallurgy 102 |
| Conservation 101 | Metallurgy 280 |
| Criminal Justice 201 | Physics 104 |
| Correctional Science and Criminal Justice | Physics 123 |
| majors only. | Physics 181 |
| Criminal Justice 209 | |
| Criminal Justice majors only. | |
| Electronics 119 | |

The Individual

Goal 7. Understand human behavior as it relates to individual development, mental and/or physical health, and wellness.*Select one course.*

| | |
|---------------------------|------------------------|
| Biology 105 | Physical Education 123 |
| Human Devel. Services 110 | Psychology 153 |
| Physical Education 101 | Psychology 201 |
| Physical Education 121 | |

Arts and Humanities

Goal 8. Understand the arts as a means of human expression; develop an awareness of the role of art in personal, social and cultural enrichment.*Select one course.*

| | |
|----------------------------|--------------------------------|
| Art 105 | Humanities 210 |
| Art 106 | Music 103 |
| Art 113 | Music 105 |
| Art 115 | Music 110 |
| Art 116 | Music 111 |
| Art 201 | Music 121 |
| Business 122 | Music 131 |
| General Business and | Music 133 |
| Marketing and Applied | Music 141 |
| Management majors only. | Music 149 |
| Culinary Arts 295 | Music 164 |
| Culinary Arts majors only. | Music 165 |
| English 200 | Occupational Therapy 123 |
| English 243 | Occupational Therapy Assistant |
| English 244 | majors only. |
| English 245 | Theatre 120 |
| English 246 | Theatre 207 |
| English 248 | Theatre 208 |
| Humanities 106 | |

Social Institutions

Goal 9. Understand the major ideas and historical events that have shaped American society, and have knowledge of the functioning of the American social and political systems.*Select one course or any 2 of the listed History courses:*

| | |
|------------------|-----------------------|
| Anthropology 112 | History 151 |
| Anthropology 201 | History 152 |
| Archaeology 117 | History 153 |
| Conservation 101 | History 230 |
| Economics 103 | Political Science 105 |
| Economics 201 | Psychology 153 |
| Geography 212 | Psychology 201 |
| History 141 | Sociology 201 |

International Perspectives and Diversity

Goal 10. Demonstrate an awareness of the contemporary global community; recognize the value of culturally diverse populations; and understand how major ideas in world societies and civilizations have shaped cultures.*Select one course.*

| | |
|------------------|----------------|
| Anthropology 201 | Geography 130 |
| Art 115 | History 134 |
| Art 116 | History 137 |
| Art 201 | History 138 |
| Economics 201 | Humanities 106 |
| English 243 | Music 105 |
| English 244 | Philosophy 243 |
| English 245 | Sociology 201 |
| English 246 | Spanish 101 |
| French 101 | Spanish 102 |
| French 102 | |



Associate Degrees

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

ASSOCIATE IN ARTS (AA)

The Associate in Arts degree is for students who plan to transfer to a senior institution and pursue a major in most transfer programs, including liberal arts.

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

ASSOCIATE IN APPLIED SCIENCE (AAS)

The Associate in Applied Science degree is for students who plan to seek career-oriented employment upon completion of a career program.

1. English - 6 credit hours required by individual curriculum.
2. Completion of one of the career programs listed in the Schoolcraft College catalog in the year the student enters.
3. Courses that apply to this degree must be at the 100 or 200 level.
4. Complete all Schoolcraft College General Education requirements.

ASSOCIATE IN ENGINEERING (AE)

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

1. English 101 and 102 required - 6 credit hours
2. Humanities - 6 credit hours
Art, Foreign Language, History, Literature, Music Appreciation, Music Literature or Music Theory, Philosophy, Communication Arts, Theatre, or Humanities.
3. Sciences - 41 credit hours
Chemistry 111 required; Chemistry 117 (See a counselor prior to registration.)
Math 150, 151, 211, 230, 240 and 252 required
Physics 211 and 212 required
4. Social Sciences - 7 credit hours
Economics 201 required
5. Courses that apply to this degree must be at the 100 or 200 level.
6. Complete all Schoolcraft College General Education requirements.

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, Theater and Humanities.
3. Sciences - 20 credit hours (one course must be a laboratory course)
Biology, Chemistry, Physical Geography, Geology, Mathematics, Physics, or Conservation.
4. Social Sciences - 8 credit hours
Anthropology, Archaeology, Economics, Economic Geography, World Geography, World Regional Geography, History, Political Science, Psychology, or Sociology.
5. General Electives - 18 credit hours - Electives may be chosen from transferable 100 or 200 level courses.
6. Courses that apply to this degree must be at the 100 or 200 level.
7. Complete all Schoolcraft College General Education requirements.

ASSOCIATE IN GENERAL STUDIES (AGS)

The Associate in General Studies degree is for students who plan to transfer to a senior institution and pursue a baccalaureate degree or who plan to individualize a program of study.

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

OR

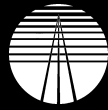
1. English 101 and 102 required - 6 credit hours
2. Any two of the following for a total of 24 credit hours:
Humanities - 12 credit hours required
Sciences - 12 credit hours required
Social Sciences - 12 credit hours required
3. General Electives - 30 credit hours required
4. Courses that apply to this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

Substitution - Waiver

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

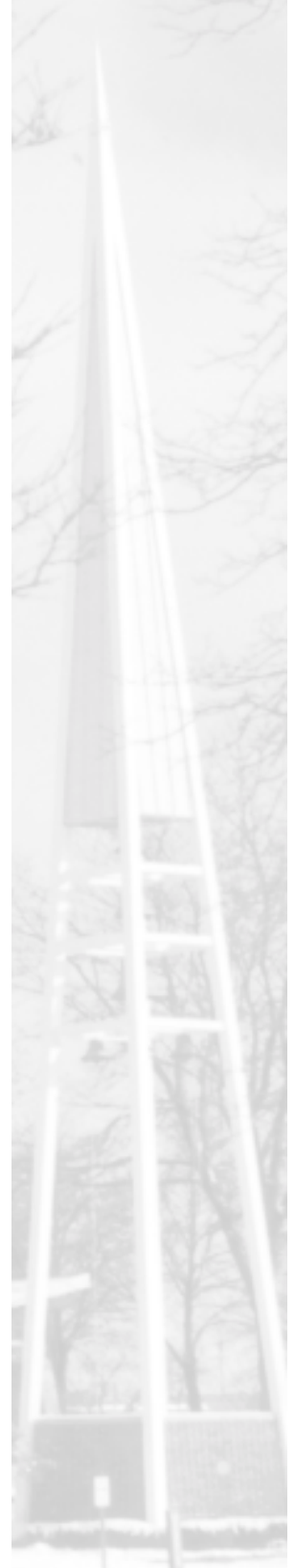
Change of Curriculum or Program

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



Schoolcraft College

Academic Programs



Academic Programs

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

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

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

Transfer Programs

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

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

- Identify the four-year university of choice as early as possible
- Work with a counselor to keep current with transfer issues, to satisfy your associate degree requirements, and to ensure transferability of courses
- Meet with representatives from Michigan's four-year universities at Schoolcraft. Visitation dates and scholarship information are printed in the student newspaper, listed on the College cable television network, posted in the Counseling Center and 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. See the Senior Colleges Agreement list for additional information
- Apply to the four-year university of your choice in a timely manner. Transfer applications are available in the Counseling Center.

The following transfer programs are offered at Schoolcraft College:

LIST OF TRANSFER PROGRAMS

Business Related

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

Education

- Elementary
- Secondary
- Special

Engineering

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

Health Related

- Pre-Dental Hygiene
- Pre-Dentistry
- Pre-Medicine
- Pre-Mortuary Science
- Pre-Nursing
- Pre-Occupational Therapy

- Pre-Optometry
- Pre-Pharmacy
- Pre-Physical Therapy
- Pre-Veterinary

Liberal Arts

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

AGREEMENTS WITH SENIOR COLLEGES

Transfer Guides

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

Transfer guides are available from the following private colleges and state universities:

Private Colleges

Center for Creative Studies
Cleary College
Concordia College
Detroit College of Business
Kettering University
Lawrence Tech. University
Madonna University
Marygrove College
Northwood University
Saint Mary's College
Specs Howard
University of Detroit Mercy
Walsh College

State Universities

Central Michigan University
Eastern Michigan University
Ferris State University
Grand Valley State University
Michigan State University
Michigan Tech. University
Northern Michigan University
Oakland University
UM-Ann Arbor
UM-Dearborn
UM-Flint
Wayne State University
Western Michigan University

MACRAO ARTICULATION AGREEMENT

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

| | |
|-------------------------------|------------------------------------|
| Adrian College* | Lake Superior State College* |
| Albion College | Lawrence Technological University* |
| Alma College* | Madonna University* |
| Aquinas College | Marygrove College |
| Baker College | Michigan Technological University* |
| Central Michigan University | Northern Michigan University |
| Cleary College* | Northwood University |
| Davenport College | Oakland University* |
| Detroit College of Business* | Olivet College |
| Eastern Michigan University* | Rochester College* |
| Ferris State University | Saginaw Valley State University* |
| Grand Valley State University | Siena Heights College* |
| Hope College * | Spring Arbor College |
| Kalamazoo College * | St. Mary's College |
| Kettering University* | Western Michigan University* |

The MACRAO Agreement ensures that any student who is accepted as a transfer student by one of the colleges listed has satisfied the basic general education requirements of that four-year institution. Students must complete the distribution of course work listed below:

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

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

Transcripts of Associate in Arts or Associate in Science degree graduates who qualify will automatically be stamped "MACRAO Agreement Satisfied."

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

Career Programs

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

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

List of Career Programs

Business Certificate
Accounting
Basic Business
Computer Information Systems

Business Associate Degree
Accounting
Computer Information Systems
Cosmetology Management
General Business
Marketing & Applied Management
Office Administration
Small Business Management

Communications Arts Associate Degree
Broadcast Communications

Health Certificate
Medical Assisting ¹
Medical Transcription ¹
Nursing - Licensed Practical ¹

Allied Health Associate Degree ¹
Health Information Technology ¹
Nursing - Registered ¹
Occupational Therapy Assistant ¹
Nursing - Licensed Practical ¹

Public Service Certificate
Child Care & Development
Child Care - Special Education
Child Development Associate
Emergency Medical Technology
Firefighter Technology

Public Service Associate Degree
Child Care & Development
Child Care - Special Education
Correctional Science
Criminal Justice and Academy
Fire Technology and Academy

Technology Certificate
Computer Aided Drafting -
Electromechanical
Computer Aided Drafting - Technical
Computer Graphics Technology
Culinary Arts ¹
Electronic Service
Energy Specialist
Laser Technology
Metallurgy - Applied Physical
Piano Teacher
Welding - Fabrication

Technology Associate Degree
Biomedical Engineering Technologist
Computer Assisted Manufacturing
Computer Aided Design - Mech. Design
Computer Aided Design - Tool Design
Computer Graphic Technology
Computer Service Technician
Culinary Arts ¹
Electronic Technology
Environmental Technology
Manufacturing for Quality Production
Metallurgy & Materials Science

Apprenticeship
Related Trades Instruction

Post-Associate Certificate ¹
Biomedical Applications
Computer Graphics Technology
Computer Information Systems
Culinary Management
Materials Science

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

ACCOUNTING

ACCOUNTING (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00005)

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

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

Students who satisfactorily complete the Accounting curriculum and all General Education requirements qualify for the Associate in Applied Science Degree.

| FIRST YEAR | |
|-----------------|---|
| Fall Semester | |
| ACCT 201 | Principles of Accounting 4 |
| CIS 120 | Software Applications for the Microcomputer 3 |
| ENG 101* | (Minimum Requirement) 3 |
| PSYCH 153 | Human Relations 3 |
| or | |
| PSYCH 201 | General Psychology 4 |
| HUM | Goal #8 Course 1-3 |
| | 14-17 |
| Winter Semester | |
| ACCT 202 | Principles of Accounting 4 |
| CIS 180 | Spreadsheet Applications 3 |
| BUS 207 | Business Law 3 |
| ENG 106 | Business English 3 |
| COMA 103 | Fundamentals of Speech 3 |
| | 16 |

| Spring Session | |
|-----------------------------|---------------------------------------|
| ECON 201 | Principles of Economics 4 |
| | 4 |
| SECOND YEAR | |
| Fall Semester | |
| ACCT 221 | Intermediate Accounting 4 |
| ACCT 226 | Cost Accounting 4 |
| POLS 105 | Survey of American Government 3 |
| ECON 202 | Principles of Economics 4 |
| or | |
| BUS 101 | Introduction to Business 3 |
| or | |
| ELECTIVE | 3 |
| | 14-15 |
| Winter Semester | |
| ACCT 222 | Intermediate Accounting 4 |
| ACCT 238 | Federal Tax Accounting 4 |
| ACCT 260 | Computer Based Accounting 3 |
| SCI | Goal #6 Course 3-4 |
| | 14-15 |
| PROGRAM TOTAL 62-67 CREDITS | |

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

The above program meets all General Education requirements.





ACCOUNTING (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00001)

The accounting program is designed to familiarize students with the work and the challenges facing accountants. The courses provide background knowledge.

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

| Fall Semester | |
|--------------------------|---|
| ACCT 201 | Principles of Accounting 4 |
| BUS 101 | Introduction to Business 3 |
| or | |
| PSYCH 153 | Human Relations 3 |
| BUS 105 | Business Math 3 |
| CIS 120 | Software Applications for the Microcomputer 3 |
| ENG 101 | English Composition 3 |
| | 16 |
| Winter Semester | |
| ACCT 202 | Principles of Accounting 4 |
| ACCT 238 | Federal Tax Accounting 4 |
| BUS 207 | Business Law 3 |
| CIS 180 | Spreadsheet Applications 3 |
| | 14 |
| Spring Session | |
| COMA 103 | Fundamentals of Speech 3 |
| | 3 |
| PROGRAM TOTAL 33 CREDITS | |

ACCOUNTING TRANSFER PROGRAM

(Schoolcraft program code # AA.00500)

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

Students who satisfactorily complete the Accounting transfer curriculum and the General Education requirements qualify for an Associate in Arts Degree.

| FIRST YEAR | |
|-----------------------------|--|
| Fall Semester | |
| ACCT 201 | Principles of Accounting 4 |
| BUS 101 | Introduction to Business 3 |
| ENG 101* | (Minimum Requirement) 3 |
| HIST** | History Course 3-4 |
| | 13-14 |
| Winter Semester | |
| ACCT 202 | Principles of Accounting 4 |
| CIS 115 | Introduction to Computer Based Systems 3 |
| ENG 102 | English Composition 3 |
| MATH 112 | Intermediate Algebra 5 |
| | 15 |
| Spring/Summer Session | |
| COMA 103 | Fundamentals of Speech 3 |
| PSYCH 153 | Human Relations 3 |
| | 6 |
| SECOND YEAR | |
| Fall Semester | |
| ACCT 221 | Intermediate Accounting 4 |
| BIOL 101 | General Biology 4 |
| or | |
| GEOL 133 | Physical Geology 4 |
| ECON 201 | Principles of Economics 4 |
| HUM | (To meet Goal #8) 3 |
| | 15 |
| Winter Semester | |
| ACCT 222 | Intermediate Accounting 4 |
| BUS 207 | Business Law 3 |
| ECON 202 | Principles of Economics 4 |
| POLS 105 | Survey of American Government 3 |
| | 14 |
| PROGRAM TOTAL 63-64 CREDITS | |

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

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

BIOMEDICAL ENGINEERING TECHNOLOGIST

BIOMEDICAL ENGINEERING TECHNOLOGIST (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00128)

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

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

Students who satisfactorily complete the program and all General Education requirements qualify for an Associate in Applied Science Degree.

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



| FIRST YEAR | |
|-----------------|--|
| Fall Semester | |
| ELECT 127 | DC Circuits and Mathematical Modeling 5 |
| ELECT 128 | AC Circuits and Mathematical Modeling 5 |
| ELECT 119 | Basic Measurement and Reporting Skills. 3 |
| | 13 |
| Winter Semester | |
| COMPS 146 | Computer Peripheral Service and Repair 4 |
| ELECT 129 | Diodes and Transistors 3 |
| BMET 115 | Biomedical Instrumentation Terminology and Safety 2 |
| ENG 100 | Communication Skills 3 |
| | 12 |
| Spring Session | |
| ELECT 226 | Digital Logic Circuits 4 |
| ENG 106 | Business English 3 |
| | 7 |
| | 16 Weeks (See Coordinator) |
| BMET 254 | Biomedical Equipment Internship 1 3 |
| | 3 |
| SECOND YEAR | |
| Fall Semester | |
| ELECT 134 | Introduction to Microprocessors 3 |
| ELECT 206 | Operational Amplifiers and Linear Integrated Circuits 4 |
| POLS 105 | Survey of American Government 3 |
| PSYCH 153 | Human Relations 3 |
| HUM 106 | Introduction to Art and Music 1 |
| | 14 |
| Winter Semester | |
| ELECT 229 | Electronics Troubleshooting 3 |
| ELECT 204 | Microcomputer Interface 3 |
| BMET 203 | Transducers 5 |
| BIOL 105 | Elementary Human Anatomy and Physiology 1 4 |
| | 15 |
| | 16 Weeks (See Coordinator) |
| BMET 255 | Biomedical Equipment Internship 2 3 |
| | 3 |

PROGRAM TOTAL 67 CREDITS

BIOMEDICAL APPLICATIONS (POST-ASSOCIATE CERTIFICATE)

(Schoolcraft program code # PAC.00178)

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

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

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

| BIOMEDICAL APPLICATIONS CERTIFICATE REQUIREMENTS (Suggested Sequence of Courses) | |
|--|--|
| FIRST YEAR | |
| Fall Semester | |
| BMET 203 | Transducers 5 |
| COMPS 246 | Computer Peripheral Service and Repair 4 |
| Winter Semester | |
| ELECT 240 | Electronic Data Communication 4 |
| LASR 232 | Laser Systems and Applications 4 |

Completion of a minimum of 15 credit hours is essential. Courses can be taken through independent study. Students may choose an applicable 200-level elective.

BROADCAST COMMUNICATIONS

BROADCAST COMMUNICATIONS (ASSOCIATE DEGREE)

(Schoolcraft program code # AA.00041)

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

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

TYPICAL PROGRAM SCHEDULE SPECS HOWARD SCHOOL Fall Semester

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

SPECS HOWARD SCHOOL Winter Semester

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

SCHOOLCRAFT COLLEGE FIRST YEAR Fall Semester

| | | |
|----------|-------------------------------------|-------|
| ENG 101 | English Composition | 3 |
| COMA 103 | Fundamentals of Speech | 3 |
| BUS 101 | Introduction to Business | 3 |
| POLS 105 | Survey of American Government | 3 |
| MATH | Goal #1 Course | 4-5 |
| | | 16-17 |

Winter Semester

| | | |
|-----------|----------------------------------|----|
| ENG 107 | Introduction to Journalism | 3 |
| ENG 110 | Journalism Practice | 1 |
| PSYCH 201 | General Psychology | 4 |
| COMA 201 | Discussion | 3 |
| GEOG 130 | Physical Geography | 4 |
| CIS 105 | Computer Orientation | 1 |
| | | 16 |

SECOND YEAR Fall Semester

| | | |
|----------|---|----|
| THEA 241 | Oral Interpretation of Literature | 3 |
| THEA 208 | Acting 1 | 3 |
| SOC 201 | Principles of Sociology | 3 |
| GEOG 133 | Physical Geology | 4 |
| | | 13 |

PROGRAM TOTAL 60-61 CREDITS

The above program meets all General Education 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 that provide a unified awareness of the activities and operational setting of a business. The program is intended to lay a foundation for a variety of entry-level positions in business that may ultimately lead to specialized study in some area of management training.

Students who satisfactorily complete the General Business curriculum and all General Education requirements qualify for an Associate in Applied Science Degree.

| FIRST YEAR | |
|-----------------------------|--|
| Fall Semester | |
| BUS 101 | Introduction to Business 3 |
| BUS 105 | Business Math 3 |
| BUS 122 | Advertising 3 |
| CIS 115 | Introduction to Computer Based Systems 3 |
| ENG 101* | English Composition 3 |
| | 15 |
| Winter Semester | |
| BUS 120 | Principles of Salesmanship 3 |
| ACCT 103 | Introduction to Accounting 4 |
| or | |
| ACCT 201 | Principles of Accounting 4 |
| ENG 106 | Business English 3 |
| POLS 105 | Survey of American Government 3 |
| PSYCH 153 | Human Relations 3 |
| or | |
| PSYCH 201 | General Psychology 4 |
| | 16-17 |
| SECOND YEAR | |
| Fall Semester | |
| BUS 217 | Business Management 3 |
| BUS 220 | Supervision 3 |
| ENG 116 | Technical Writing 3 |
| ECON 103 | Introductory Economics 3 |
| or | |
| ECON 201 | Principles of Economics 4 |
| ELECTIVE** | 3 |
| | 15-16 |
| Winter Semester | |
| BUS 207 | Business Law 3 |
| BUS 226 | Principles of Marketing 3 |
| COMA 103 | Fundamentals of Speech 3 |
| HIST 230 | U.S. Business History 3 |
| ELECTIVE** | 3 |
| | 15 |
| PROGRAM TOTAL 61-63 CREDITS | |

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

** Suggested electives: BUS 122, 161, 162, 204, 205, 208, CIS 215, or ENG 116.

The above program meets all General Education requirements.

BUSINESS-BASIC (ONE YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00002)

The Basic Business program introduces students to accounting, economics and data processing. It also develops students' basic skills in keyboarding and computer operations.

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

| Fall Semester | |
|--------------------------|--|
| BUS 101 | Introduction to Business 3 |
| ACCT 103 | Introduction to Accounting 4 |
| CIS 115 | Introduction to Computer Based Systems 3 |
| ENG 100 | Communication Skills 3 |
| or | |
| ENG 101 | English Composition 3 |
| PSYCH 153 | Human Relations 3 |
| | 16 |
| Winter Semester | |
| BUS 105 | Business Math 3 |
| ECON 103 | Introductory Economics 3 |
| ENG 106 | Business English 3 |
| COMA 103 | Fundamentals of Speech 3 |
| OIS 100 | Beginning Keyboarding 2 |
| | 14 |
| Spring Session | |
| BUS 217 | Business Management 3 |
| | 3 |
| PROGRAM TOTAL 33 CREDITS | |



CHILD CARE

CHILD CARE - SPECIAL EDUCATION (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00021)

Working with handicapped children and adults requires sensitivity to individual needs and an ability to find and develop the potential of each child or adult. This curriculum contains theoretical and practical experience designed to prepare students to work in special education classrooms, institutional settings, sheltered workshops, job coach programs, group homes, or supported-living programs. Students learn to work effectively as members of a professional special needs team.

Students who successfully complete the program will meet the requirements of the State Department of Education for Instructional Aides.

The Associate in Applied Science Degree is awarded upon successful completion of the curriculum and all General Education requirements.

| FIRST YEAR | |
|-----------------------------|--|
| Fall Semester | |
| CCD 116 | Child Development 3 |
| CCD 216 | The Child with Special Needs 3 |
| CCD 105 | Introduction to Developmental Disabilities 3 |
| ENG 100 | Communication Skills 3 |
| or | |
| ENG 101 | English Composition 3 |
| PSYCH 153 | Human Relations..... 3 |
| or | |
| PSYCH 201 | General Psychology 4 |
| | 15-16 |
| Winter Semester | |
| CCD 150 | Child Care Practicum 1 3 |
| CCD 215 | Methods and Curricula for Persons with Developmental Disabilities 3 |
| CCD 130 | Learning Disabilities 3 |
| ENG 106 | Business English 3 |
| or | |
| ENG 102 | English Composition 3 |
| SCI | Goal #6 Course 3-4 |
| | 15-16 |
| Spring Session | |
| CCD 126 | Creative Activities 3 |
| CCD 170 | Behavior Management 3 |
| | 6 |
| SECOND YEAR | |
| Fall Semester | |
| CCD 140 | Emotional Impairment 3 |
| CCD 211 | Children and Youth in Groups 3 |
| CCD 200 | Child Care Practicum 2 3 |
| BUS 105 | Business Math 3 |
| PE 121 | First Aid 2 |
| CIS 105 | Computer Orientation 1 |
| | 15 |
| Winter Semester | |
| CCD 113 | Special Education Programs and Supported Community Living 3 |
| CCD 100 | Introduction to Child Welfare Services 3 |
| or | |
| CCD 101 | Preschool Child Care 3 |
| or | |
| CCD 115 | School Age Child Care 3 |
| or | |
| CCD 121 | The Adolescent 3 |
| COMA 103 | Fundamentals of Speech 3 |
| POLS 105 | Survey of American Government 3 |
| HUM | Goal #8 Course 1-4 |
| | 13-16 |
| PROGRAM TOTAL 64-69 CREDITS | |

The above program meets all General Education requirements.

CHILD CARE AND DEVELOPMENT

CHILD CARE AND DEVELOPMENT (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00020)

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

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

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

The Associate in Applied Science Degree is awarded upon successful completion of the curriculum and all General Education requirements.

| FIRST YEAR | |
|-----------------------------|---|
| Fall Semester | |
| CCD 116 | Child Development 3 |
| CCD 118 | Infant and Toddler Care 3 |
| CCD 101 | Preschool Child Care 3 |
| ENG 100 | Communication Skills 3 |
| or | |
| ENG 101 | English Composition 3 |
| PSYCH 153 | Human Relations 3 |
| or | |
| PSYCH 201 | General Psychology 4 |
| | 15-16 |
| Winter Semester | |
| CCD 150 | Child Care Practicum 1 3 |
| CCD 115 | School Age Child Care 3 |
| CCD 216 | The Child with Special Needs 3 |
| ENG 106 | Business English 3 |
| or | |
| ENG 102 | English Composition 3 |
| SCI | Goal #6 Course 3-4 |
| | 15-16 |
| Spring Session | |
| CCD 126 | Creative Activities 3 |
| CCD 170 | Behavior Management 3 |
| | 6 |
| SECOND YEAR | |
| Fall Semester | |
| CCD 200 | Child Care Practicum 2 3 |
| CCD 211 | Children and Youth in Groups 3 |
| CCD 100 | Introduction to Child Welfare Services 3 |
| BUS 105 | Business Math 3 |
| PE 121 | First Aid 2 |
| CIS 105 | Computer Orientation 1 |
| | 15 |
| Winter Semester | |
| CCD 121 | The Adolescent 3 |
| CCD 214 | Operation and Maintenance of a Child Care Facility 3 |
| COMA 103 | Fundamentals of Speech 3 |
| POLS 105 | Survey of American Government 3 |
| HUM | Goal #8 Course 1-4 |
| | 13-16 |
| PROGRAM TOTAL 64-69 CREDITS | |

The above program meets all General Education requirements.

**CHILD CARE SPECIAL EDUCATION
(ONE YEAR CERTIFICATE)**

(Schoolcraft program code # 1YC.00032)

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

| Fall Semester | |
|-----------------|--|
| CCD 116 | Child Development 3 |
| CCD 216 | The Child with Special Needs 3 |
| CCD 105 | Introduction to Developmental Disabilities 3 |
| CCD 150 | Child Care Practicum 1 3 |
| CCD 140 | Emotional Impairment 3 |
| | 15 |
| Winter Semester | |
| CCD 215 | Methods and Curricula for Persons with Developmental Disabilities 3 |
| CCD 130 | Learning Disabilities 3 |
| CCD 113 | Special Education Programs and Supported Community Living 3 |
| CCD 211 | Children and Youth in Groups 3 |
| CCD 200 | Child Care Practicum 2 3 |
| | 15 |
| Spring Session | |
| CCD 170 | Behavior Management 3 |
| PE 121 | First Aid 2 |
| | 5 |

PROGRAM TOTAL 35 CREDITS

**Child Development Associate (CDA)
CERTIFICATE PROGRAM**

(Schoolcraft program code # 1YC.00034)

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

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

| | |
|---------|---|
| CCD 116 | Child Development 3 |
| CCD 118 | Infant and Toddler Care 3 |
| CCD 101 | Preschool Child Care 3 |
| CCD 100 | 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 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.

| Fall Semester | |
|-----------------|---|
| CCD 116 | Child Development 3 |
| CCD 118 | Infant and Toddler Care 3 |
| CCD 101 | Preschool Child Care 3 |
| CCD 150 | Child Care Practicum 1 3 |
| CCD 216 | The Child with Special Needs 3 |
| | 15 |
| Winter Semester | |
| CCD 100 | Introduction to Child Welfare Services 3 |
| CCD 126 | Creative Activities 3 |
| CCD 211 | Children and Youth in Groups 3 |
| CCD 214 | Operation and Maintenance of a Child Care Facility 3 |
| CCD 200 | Child Care Practicum 2 3 |
| | 15 |
| Spring Session | |
| CCD 170 | Behavior Management 3 |
| PE 121 | First Aid 2 |
| | 5 |

PROGRAM TOTAL 35 CREDITS

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

National Association for the Education of Young Children
(NAEYC)
1509 16th Street
N.W., Washington, DC 20036



COMPUTER AIDED DESIGN - ASSOCIATE DEGREE PROGRAMS

MECHANICAL AND TOOL DESIGN OPTIONS

As technology capability shifts from two dimensional drafting to three dimensional modeling, the training of technicians will need to change with it. In addition to understanding the basic principles of dimensioning and drafting, future designers will need to be trained in understanding the complete product development process and how computers have connected them. The skills needed by Tool Designers have grown to include how to import and manipulate 3-D models and how to interface with simulation and machining programs. Mechanical Designers need to be trained in creating, editing, linking and distributing data files which represent the product information while understanding the processes necessary to create and distribute the product.

GENERAL EDUCATION CORE COURSES

| Dept. | Course No. | Course Title | Credits |
|-------|------------|---|------------|
| ENG | 100* | Communications (Goal #2 & Goal #3) | 3 |
| ENG | 106* | Business English | 3 |
| HUM | 106* | Introduction to Art and Music (Goal #8) | 1 |
| MATH | 112 | Intermediate Algebra (Goal #1) | 5 |
| POLS | 105* | Survey of American Government (Goals #4 & #9) | 3 |
| PSYCH | 153* | Human Relations (Goals #7 & #9) | 3 |
| | | | CREDITS 18 |

* Other courses meeting the General Education Goals(s) may be substituted.

CURRICULUM CORE COURSES

| Dept. | Course No. | Course Title | Credits |
|-------|------------|---|------------|
| CAD | 103 | Engineering Graphics (Goal #5) | 3 |
| CAD | 105 | Mechanical Engineering Drawing | 4 |
| CAD | 107 | Detailing | 4 |
| DRFG | 112 | Descriptive Geometry | 3 |
| CAD | 201 | I-DEAS Level 1 | 4 |
| DSGN | 180 | Machine Elements and Design | 4 |
| DSGN | 240 | Tool and Die Design | 4 |
| DSGN | 260 | Jig and Fixture Design | 4 |
| MATH | 119 | Trigonometry | 3 |
| MET | 102 | Introduction To Materials Science (Goal #6) | 3 |
| MET | 114 | Advanced Materials and Applications | 3 |
| MFG | 102 | Basic Machining, Measurements and Manufacturing Processes | 3 |
| CAM | 102 | Introduction to Computer Numerical Control (CNC) | 3 |
| | | | CREDITS 45 |

CAD/MECHANICAL

(Schoolcraft program code # AAS.00170)

Majors will take a Science Elective from the following list:

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

PROGRAM TOTAL CREDITS 67-68

* Or higher level course

CAD/TOOL DESIGN

(Schoolcraft program code # AAS.00140)

Majors will take:

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

PROGRAM TOTAL CREDITS 67

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 Electro-Mechanical Drafting. Students may select, at any time, to work towards an Associate Degree in Computer Aided Design.

Students who satisfactorily complete the Drafting Electro-Mechanical Certificate curriculum qualify for a Certificate of Program Completion.

| FIRST YEAR | | |
|-----------------|---|------------|
| Fall Semester | | |
| CAD 103 | Engineering Graphics | 3 |
| ELECT 135 | Fluid Power | 4 |
| ELECT 127 | DC Circuits and Mathematical Modeling | 5 |
| MATH 112 | Intermediate Algebra | 5 |
| | | 17 |
| Winter Semester | | |
| CAD 105 | Mechanical Engineering Drawing | 4 |
| DSGN 113 | Hydraulics/Pneumatics/Electrical Schematics | 3 |
| ELECT 128 | AC Circuits and Mathematical Modeling | 5 |
| | | 12 |
| Winter Semester | | |
| CAD 107 | Detailing | 4 |
| | | 4 |
| PROGRAM TOTAL | | 33 CREDITS |

CAD-DRAFTING — TECHNICAL (ONE-YEAR CERTIFICATE)

(Schoolcraft program code #1YC.00119)

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

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

| FIRST YEAR | | |
|-----------------|--|------------|
| Fall Semester | | |
| CAD 103 | Engineering Graphics | 3 |
| MFG 102 | Basic Machining, Measurements and Manufacturing Processes | 3 |
| MATH 112 | Algebra | 5 |
| | | 11 |
| Winter Semester | | |
| CAD 105 | Mechanical Engineering Drawing | 4 |
| MET 102 | Introduction to Materials Science | 3 |
| MATH 119 | Trigonometry | 5 |
| | | 12 |
| Spring Session | | |
| CAD 107 | Detailing | 4 |
| CAD 201 | I-DEAS Level 1 | 4 |
| | | 8 |
| PROGRAM TOTAL | | 31 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 involved in production, including materials and equipment required in order to produce a product and be able to integrate computer equipment and software.

The Associate in Applied Science Degree is awarded upon successful completion of the curriculum and all General Education Goal requirements.

| FIRST YEAR | | |
|-----------------|--|------------|
| Fall Semester | | |
| MFG 102 | Basic Machining, Measurements and Manufacturing Processes | 3 |
| CAM 102 | Introduction to Computer Numerical Control (CNC) | 3 |
| COMPS 126 | Technical Programming | 3 |
| CAD 101 | Introduction to Computer Aided Drafting | 3 |
| MATH 112 | Intermediate Algebra | 5 |
| | | 17 |
| Winter Semester | | |
| MFG 103 | Manufacturing Theory and Machine Operation | 3 |
| CAM 103 | Computer Numerical Control Programming | 3 |
| MET 102 | Introduction to Materials Science | 3 |
| ELECT 135 | Fluid Power | 4 |
| MATH 119 | Trigonometry | 3 |
| | | 16 |
| SECOND YEAR | | |
| Fall Semester | | |
| ENG 100 | Communication Skills | 3 |
| MET 114 | Advanced Materials and Applications | 3 |
| CIM 217 | Robotic Programming | 3 |
| PSYCH 153 | Human Relations | 3 |
| LASR 103 | Laser Concepts | 4 |
| | | 16 |
| Winter Semester | | |
| ENG 106 | Business English | 3 |
| HUM 106 | Introduction to Art and Music | 1 |
| POLS 105 | Survey of American Government | 3 |
| CAM 204 | Computer Aided Machining (CAD/CAM) | 2 |
| QM 106 | Introduction to Quality Systems | 3 |
| ELECTIVE | | 3 |
| | | 15 |
| PROGRAM TOTAL | | 64 CREDITS |

The above program meets all General Education requirements.

COMPUTER GRAPHICS TECHNOLOGY

The Computer Graphics Technology Program prepares people for a career in the fields of graphic design and computer graphics. Students learn how to use professional level software, and state-of-the-art hardware and peripherals. Students also learn to apply the principles of design, typography and color theory to the creation of effective print and computer based graphic communication. The student who satisfactorily completes the CGT Curriculum and meets all General Education Requirements qualifies for an Associate of Applied Science Degree.

COMPUTER GRAPHICS TECHNOLOGY (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00028)

Complete all the General Education Core Courses and all the Computer Graphics Technology Core Courses, including any two of the CGT Specialist Tracks. (60 credit hours)

COMPUTER GRAPHICS TECHNOLOGY (CERTIFICATE)

(Schoolcraft program code # 1YC.00136)

Complete one Drawing/Design class (ART 105, 106, 125, or 126), four credit hours of CGT electives, CGT 250, and any two of the CGT Specialist Tracks. (30 credit hours)

COMPUTER GRAPHICS TECHNOLOGY (POST-ASSOCIATE DEGREE CERTIFICATE)

(Schoolcraft program code # PAC.00181)

Complete any specialist track, CGT 250 or 251, and two credit hours of CGT electives. Students must have already earned the CGT Associate Degree or completed a similar program at an accredited institution. (15 credit hours)

Note: For best success, students should contact the CGT department for expected curriculum changes.

General Education Core Courses

| | | |
|--|--|--------------------------------------|
| Math | Take any course which meets Goal #1 | 3 |
| Writing | Take any sequence of courses which meets Goal #2 | 6 |
| Speaking & Listening | Take any course which meets Goal #3 | 3 |
| Reasoning | Take any course which meets Goal #4 | 3 |
| Science | Take any course which meets Goal #6 | 4 |
| Take SOC 201, PSYCH 153 or any combination of courses which meet Goal #7 | | 3 |
| Social Institutions | Take any course which meets Goal #9 | 3 |
| | | GENERAL EDUCATION CORE CREDITS 25 |

Computer Graphics Technology Core Courses

| Course Number & Title | | Credits |
|---|---|---|
| Drawing/Design – Take one of the following: (Meets Goal #8) | | |
| ART 105 | Basic Drawing | 3 |
| ART 106 | Basic Design | 3 |
| ART 125 | Basic Drawing 2 | 3 |
| ART 126 | Basic Design 2 | 3 |
| Specialist Tracks – Complete any two tracks outlined in box below (Meets Goal #5) | | 20 |
| ELECTIVE – Take any non -ART/CGT course, one of the following is recommended: | | |
| OIS 105 | Office Communication and Editing Skills | 3 |
| BUS 122 | Advertising | 3 |
| Art Elective – Take any ART or CGT course not already required | | 3 |
| Practical Application – CGT 250 (Meets Goal #9) Practical Application | | 3 |
| Application – Take one of the following courses: | | |
| CGT 251 | Practical Application | 3 |
| CGT 270 | Internship | 3 |
| | (Requires consent of the Department) | |
| CGT 298 | Honors Project | 3 |
| | (Requires consent of the Department) | |
| | | CGT CORE CREDITS 35 PROGRAM TOTAL 60 |

CGT Specialist Tracks

| | | |
|--|---|---|
| Each specialist track provides in-depth exposure to one area of computer graphics. Each track emphasizes the software, hardware and design skills appropriate to that specialty. Students must complete two tracks. | | |
| Track 1 Illustration | Track 2 Publishing Design | |
| CGT 110 Graphics Current Software | CGT 112 Page Layout Current Software | 2 |
| CGT 111 Graphics Current Software | CGT 113 Page Layout Current Software | 2 |
| Design Elective* | Design Elective* | 2 |
| CGT 220 Elect Imaging | CGT 230 Elect. Publishing | 4 |
| Track 3 Image Processing | Track 4 Web Design | |
| CGT 104 Photoshop 1 | CGT 107 PowerPoint | 2 |
| CGT 204 Photoshop 2 | CGT 108 Web Graphics | 2 |
| Design Elective* | Design Elective* | 2 |
| CGT 225 Digital Imaging | CGT 235 Web Design | 4 |
| | Track 5 Multimedia | |
| | CGT 105 Director 1 | 2 |
| | CGT 205 Director 2 | 2 |
| | Design* or Music Elective | 2 |
| | CGT 241 Multimedia | 4 |

* For each track, students should take one CGT Design course from the following list:
CGT 150, CGT 151, CGT 152, CGT 153, CGT 54, CGT 155, CGT 156, CGT 157.

COMPUTER INFORMATION SYSTEMS

COMPUTER INFORMATION SYSTEMS - PROGRAMMING (ASSOCIATE DEGREE - OPTION 1)

(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.

Upon successful completion of this curriculum and all General Education requirements, Schoolcraft College awards an Associate in Applied Science Degree.

| FIRST YEAR | |
|-----------------|--|
| Fall Semester | |
| CIS 115 | Introduction to Computer Based Systems 3 |
| CIS 129 | BASIC 3 |
| MATH 112 | Intermediate Algebra 5 |
| COMA 103 | Fundamentals of Speech 3 |
| | 14 |
| Winter Semester | |
| CIS 120 | Software Applications for the Microcomputer 3 |
| CIS 175 | Visual Basic 3 |
| CIS 225 | Database Management Systems for the Microcomputer 3 |
| ENG 101 | English Composition 3 |
| ACCT 201 | Principles of Accounting 4 |
| | 16 |
| Spring Semester | |
| POLS 105 | Survey of American Government 3 |
| | 3 |
| SECOND YEAR | |
| Fall Semester | |
| CIS 170 | Microsoft Windows 3 |
| ELECTIVE** | CIS 2-3 |
| CIS 250 | Systems Development and Design 4 |
| | |
| CIS 255 | Introduction to LINUX 3 |
| or | |
| CIS 260 | Introduction to UNIX Operating Systems 3 |
| HUM 106 | Introduction to Art and Music 1 |
| | 13-14 |
| Winter Semester | |
| BUS 201 | Business Statistics 3 |
| ENG 102 | English Composition 3 |
| ELECTIVE** | CIS 2-3 |
| ELECTIVE** | CIS 2-3 |
| PSYCH 153 | Human Relations 3 |
| or | |
| PSYCH 201 | General Psychology 4 |
| | 14-16 |

PROGRAM TOTAL 60-63 CREDITS

** May select one of the following courses if not previously taken.

| | |
|---------|---|
| CIS 140 | Pascal 3 |
| CIS 205 | Object-Oriented Programming with Delphi 3 |
| CIS 210 | Programming with "C" 3 |
| CIS 211 | Introduction to C++ 2 |
| CIS 221 | Advanced C++ 2 |
| CIS 275 | Advanced Visual Basic 3 |
| CIS 290 | Object-Oriented Programming with Java 3 |

COMPUTER INFORMATION SYSTEMS - MICROCOMPUTER SUPPORT TECHNICIAN (ASSOCIATE DEGREE - OPTION 2)

(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 entry-level positions supporting users of microcomputer systems. Students will learn popular software applications and understand the microcomputer components of the operating system. Technicians will assist microcomputer users by recommending appropriate hardware and software, interpreting software manuals, organizing the disk storage, and creating systems solutions using the microcomputer.

Upon successful completion of this curriculum and all General Education requirements, Schoolcraft College awards an Associate in Applied Science Degree.

| FIRST YEAR | |
|-----------------|--|
| Fall Semester | |
| CIS 115 | Introduction to Computer Based Systems 3 |
| CIS 129 | BASIC 3 |
| MATH 112 | Intermediate Algebra 5 |
| ENG 101 | English Composition 3 |
| | 14 |
| Winter Semester | |
| CIS 120 | Software Applications for the Microcomputer 3 |
| CIS 175 | Visual Basic 3 |
| ENG 102 | English Composition 3 |
| POLS 105 | Survey of American Government 3 |
| ACCT 201 | Principles of Accounting 4 |
| or | |
| BUS 201 | Business Statistics 3 |
| | 15-16 |
| Spring Semester | |
| CIS 170 | Microsoft Windows 3 |
| | 3 |
| SECOND YEAR | |
| Fall Semester | |
| CIS 215 | Advanced Software Applications 3 |
| CIS 225 | Database Management Systems for the Microcomputer 3 |
| CIS 235 | Microcomputer Operations 3 |
| CIS 265 | Networking 1 3 |
| COMA 103 | Fundamentals of Speech 3 |
| | 15 |
| Winter Semester | |
| HUM 106 | Introduction to Art and Music 1 |
| CIS 180 | Spreadsheet Applications 3 |
| CIS 250 | Systems Development and Design 4 |
| CIS 276 | Networking 2 3 |
| PSYCH 153 | Human Relations 3 |
| or | |
| PSYCH 201 | General Psychology 4 |
| | 14-15 |

PROGRAM TOTAL 61-63 CREDITS

COMPUTER INFORMATION SYSTEMS - INTRODUCTORY (ONE-YEAR CERTIFICATE)

(Schoolcraft program code #1YC.00004)

The Computer Information Systems certificate program introduces students to several programming languages. In addition, students obtain a basic knowledge of accounting and English.

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

| Fall Semester | |
|-----------------------------|--|
| CIS 115* | Introduction to Computer Based Systems 3 |
| or | |
| CIS 120* | Software Applications for the Microcomputer 3 |
| ACCT 201 | Principles of Accounting 4 |
| MATH 112 | Intermediate Algebra 5 |
| CIS 129 | BASIC 3 |
| | 15 |
| Winter Semester | |
| ELECTIVE** CIS | 3-4 |
| CIS 170 | Microsoft Windows 3 |
| CIS 175 | Visual Basic 3 |
| CIS 225 | Database Management Systems for the Microcomputer 3 |
| ENG 101 | English Composition 3 |
| | 15-16 |
| PROGRAM TOTAL 30-31 CREDITS | |

* Students must take CIS 115 before entering this Certificate Program unless they have completed an introductory course with a grade of 3.0 or better, or they have equivalent work experience. CIS 120 is required.

** Select any ONE course below to complete this certificate program.

| | |
|---------|------------------------------|
| CIS 140 | Pascal 3 |
| CIS 210 | Programming with "C" 3 |

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

COMPUTER INFORMATION SYSTEMS (POST-ASSOCIATE CERTIFICATE)

(Schoolcraft program code # PAC.00155)

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

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

COMPUTER INFORMATION SYSTEMS CERTIFICATE REQUIREMENTS

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

| | |
|---------|--|
| CIS 205 | Object-Oriented Programming using Delphi 3 |
| CIS 210 | Programming with "C" 3 |
| CIS 211 | Introduction to C++ 2 |
| CIS 221 | Advanced C++ 2 |
| CIS 235 | Microcomputer Operations 3 |
| CIS 250 | Systems Development and Design 3 |
| CIS 255 | Introduction to LINUX 3 |
| CIS 260 | Introduction to UNIX Systems 3 |
| CIS 265 | Networking 1 3 |
| CIS 275 | Advanced Visual Basic 3 |
| CIS 276 | Networking 2 3 |
| CIS 290 | Object-Oriented Programming with Java 3 |

Completion of a minimum of 15 credit hours is required.

Courses may be taken through independent study.





COMPUTER SERVICE

COMPUTER SERVICE TECHNICIAN (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00129)

A Computer Service Technician services computer systems, microcomputers and equipment including peripherals. These vital services keep the hi-tech equipment operating efficiently. These technicians routinely adjust electromechanical parts and check electric equipment for defective components or circuits. Test equipment, such as logic probes, logic analyzers and oscilloscopes are used. Technicians assist in installation of new equipment. Upon successful completion of this program and all General Education requirements, an Associate in Applied Science Degree is earned.



FIRST YEAR Fall Semester

| | | |
|-----------|--|----|
| COMPS 125 | Technical Programming | 3 |
| ELECT 108 | Basic Measurement and Reporting Skills | 3 |
| ELECT 127 | DC Circuits and Mathematical Modeling | 5 |
| ENG 100 | Communication Skills | 3 |
| HUM 106 | Introduction to Art and Music | 1 |
| | | 15 |

Winter Semester

| | | |
|-----------|---|----|
| ELECT 114 | Introduction to Microprocessors | 3 |
| ELECT 128 | AC Circuits and Mathematical Modeling | 5 |
| ELECT 124 | Diodes and Transistors | 4 |
| ENG 116 | Technical Writing | 3 |
| | | 15 |

Spring Session

| | | |
|-----------|------------------------------|---|
| ELECT 213 | Operational Amplifiers | 4 |
| | | 4 |

SECOND YEAR

Fall Semester

| | | |
|-----------|--|----|
| COMPS 146 | Computer Peripheral Service and Repair | 4 |
| ELECT 222 | Digital Network Analysis | 3 |
| ELECT 224 | Digital Logic Circuits | 4 |
| ELECT 227 | Linear Integrated Circuits | 4 |
| | | 15 |

Winter Semester

| | | |
|-----------|--|----|
| ELECT 202 | Electronics Service | 2 |
| COMPS 246 | Computer Peripheral Service and Repair | 4 |
| COMPS 265 | Circuit Analysis and Repair Internship | 4 |
| POLS 105 | Survey American Government | 3 |
| | | 13 |

Spring Session

| | | |
|-----------|-----------------------|---|
| PSYCH 153 | Human Relations | 3 |
| | | 3 |

PROGRAM TOTAL 65 CREDITS

The above program meets all General Education requirements.

CORRECTIONAL SCIENCE

CORRECTIONAL SCIENCE (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00132)

The Correctional Science Program is designed to prepare students for employment in the corrections field. The purpose of corrections is to resocialize and neutralize deviant behavior after the criminal courts have imposed sentencing for violation of laws.

Coursework explores the broad spectrum of systems, processes, and people constituting the correctional field as well as the historical and philosophical aspects of probation, incarceration, prisoner rights, and the role of the officer. Qualifications include the ability to deal with diverse personalities and a positive attitude.

Students may begin the degree program with the five courses certified by the Michigan Correction's Officer Training Council, making them eligible for employment with the Department of Corrections while they complete their degree. Students who satisfactorily complete the Correctional Science program, including all General Education requirements, qualify for an Associate in Applied Science Degree.

Career paths include employment in correctional facilities, field services, treatment and volunteer programs, community corrections, and camps.

| FIRST YEAR | |
|--------------------------|---|
| Fall Semester | |
| COR 110 | Introduction to Corrections 3 |
| COR 120 | Correctional Facilities - Organization and Administration 3 |
| CJ 113 | Introduction to Criminal Justice System 3 |
| ENG 100 | Communication Skills 3 |
| or | |
| ENG 101 | English Composition 3 |
| COMA 103 | Fundamentals of Speech 3 |
| CIS 105 | Computer Orientation 1 |
| | 16 |
| Winter Semester | |
| COR 150 | Client Growth and Development. 3 |
| COR 160 | Client Relations in Corrections 3 |
| POLS 105 | Survey of American Government 3 |
| ENG 116 | Technical Writing 3 |
| or | |
| ENG 102 | English Composition 3 |
| CIS 115 | Introduction to Computer Based Systems 3 |
| HUM 106 | Introduction to Art and Music 1 |
| | 16 |
| SECOND YEAR | |
| Fall Semester | |
| COR 231 | Parole and Probation 3 |
| COR 211 | Legal Issues in Corrections 3 |
| CJ 201 | Criminal Investigation 3 |
| CJ 221 | Juvenile Justice 3 |
| PSYCH 201 | General Psychology 4 |
| | 16 |
| Winter Semester | |
| CJ 212 | Criminology 3 |
| COR 251 | Prisoner Services -Treatment Programs 3 |
| COR 261 | Interviewing and Interrogation Techniques 3 |
| SOC 201 | Principles of Sociology 3 |
| BUS 105 | Business Math 3 |
| | 15 |
| PROGRAM TOTAL 63 CREDITS | |

The above program meets all General Education requirements.

COSMETOLOGY MANAGEMENT

COSMETOLOGY MANAGEMENT (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00010)

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

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

Students who satisfactorily complete this program and all General Education requirements qualify for an Associate in Applied Science Degree.

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

| SECOND YEAR | |
|--------------------------|---------------------------------------|
| Fall Semester | |
| BUS 101 | Introduction to Business 3 |
| BUS 103 | Organizing a Small Business 3 |
| ENG 100 | Communication Skills 3 |
| or | |
| ENG 101 | English Composition 3 |
| PSYCH 153 | Human Relations 3 |
| BUS 105 | Business Math 3 |
| | 15 |
| Winter Semester | |
| ACCT 103 | Introduction to Accounting 4 |
| BUS 104 | Operating a Small Business 3 |
| ENG 116 | Technical Writing 3 |
| COMA 103 | Fundamentals of Speech 3 |
| POLS 105 | Survey of American Government 3 |
| | 16 |
| Spring Session | |
| CIS 105 | Computer Orientation 1 |
| HUM 106 | Introduction Art and Music 1 |
| SCI | Goal #6 Course 3 |
| | 5 |
| PROGRAM TOTAL 36 CREDITS | |

The above program meets all General Education requirements.

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. Accounting, administering and interpreting of the activities and responsibilities of law enforcement officers dictate that post-high school training is indispensable in carrying out these tasks.

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 this program and all General Education requirements qualify for an Associate in Applied Science Degree.

| FIRST YEAR | |
|--------------------------|---|
| Fall Semester | |
| CJ 113 | Introduction to the Criminal Justice System 3 |
| CJ 102 | Organization and Administration 3 |
| POLS 105 | Survey of American Government 3 |
| COMA 103 | Fundamentals of Speech 3 |
| ENG 100 | Communication Skills 3 |
| or | |
| ENG 101 | English Composition 3 |
| | 15 |
| Winter Semester | |
| HUM 106 | Introduction to Art and Music 1 |
| COR 110 | Introduction to Corrections 3 |
| CJ 104 | Introduction to Security 3 |
| PSYCH 153 | Human Relations 3 |
| ENG 102 | English Composition 3 |
| or | |
| ENG 116 | Technical Writing 3 |
| CJ 107 | Police Field Operations 3 |
| | 16 |
| SECOND YEAR | |
| Fall Semester | |
| CJ 209 | Criminalistics 3 |
| CJ 211 | Criminal Law and Procedures 3 |
| BIOL 103 | Health Education 3 |
| CIS 105 | Computer Orientation 1 |
| BUS 105 | Business Math 3 |
| ELECTIVE | 3 |
| | 16 |
| Winter Semester | |
| CJ 201 | Criminal Investigation 3 |
| CJ 212 | Criminology 3 |
| CJ 221 | Juvenile Justice 3 |
| SOC 201 | Principles of Sociology 3 |
| CIS 115 | Introduction to Computer Based Systems 3 |
| | 15 |
| PROGRAM TOTAL 62 CREDITS | |

The above program meets all General Education requirements.

CRIMINAL JUSTICE ASSOCIATE DEGREE WITH ACADEMY

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

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

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

Candidates for employment as law enforcement officers must be certified by the Michigan Commission on Law Enforcement Standards (MCOLES). After completing the Police Academy (CJ 285), students may become certified by passing the MCOLES Certification Exam. Certification is valid for one year. Pre-service students, who are not employed by a law enforcement agency, must complete 41 credit hours of course work for the associate degree before taking CJ 285. Students who complete this program and all General Education requirements qualify for an Associate in Applied Science Degree.

| FIRST YEAR | |
|--------------------------|---|
| Fall Semester | |
| CJ 102 | Organization and Administration 3 |
| POLS 105 | Survey of American Government 3 |
| COMA 103 | Fundamentals of Speech 3 |
| ENG 100 | Communication Skills 3 |
| or | |
| ENG 101 | English Composition 3 |
| HUM 106 | Introduction to Art and Music 1 |
| | 13 |
| Winter Semester | |
| COR 110 | Introduction to Corrections 3 |
| CJ 211 | Criminal Law and Procedures 3 |
| PSYCH 153 | Human Relations 3 |
| ENG 116 | Technical Writing 3 |
| or | |
| ENG 102 | English Composition 3 |
| CIS 105 | Computer Orientation 1 |
| | 13 |
| SECOND YEAR | |
| Fall Semester | |
| BUS 105 | Business Math 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 285 | Police Academy 19 |
| | 19 |
| PROGRAM TOTAL 60 CREDITS | |

The above program meets all General Education requirements.

CULINARY ARTS

CULINARY ARTS (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00087)

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

The Culinary Arts Associate Degree Program provides the skills necessary to enter food service occupations at advanced levels. The general education portion of the curriculum is vital to students' development.

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

Students who satisfactorily complete this program and General Education requirements qualify for an Associate in Applied Science Degree.

CAP 090, Introduction to Professional Cooking is a pre-program requirement.

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

| FIRST YEAR | |
|----------------|--|
| Fall Semester | |
| (Lecture& Lab) | |
| CAP 144 | Baking 1 (4-0) 4 |
| CAP 124 | Breakfast and Pantry (4-0) 4 |
| CAP 125 | Pastries 1 (4-0) 4 |
| CAP 141 | Culinary Sanitation** (2-0) 2 |
| ENG 100 | Communication Skills (Goals #2 & #3) (3-0) 3 |
| 17 | |

| Winter Semester | |
|-----------------|---|
| (Lecture& Lab) | |
| CAP 142 | Butchery (4-0) 4 |
| CAP 128 | Introduction to Food Techniques (4-0) 4 |
| CAP 143 | Dining Room Service (4-0) 4 |
| ENG 106 | Business English (3-0) 3 |
| BUS 105 | Business Math (Goal #1) (3-0) 3 |
| or | |
| ACCT 103 | Introduction to Accounting (Goal #1) (4-0) 4 |
| ELECTIVE* | 3-4 |
| 21-23 | |

| SECOND YEAR | |
|----------------|---|
| Fall Semester | |
| (Lecture& Lab) | |
| CAP 227 | Restaurant Operation (4-0) 4 |
| CAP 232 | International Cuisine (4-0) 4 |
| CAP 215 | Charcuterie (4-0) 4 |
| CAP 241 | Culinary Nutrition** (2-0) 2 |
| SOC 201 | Principles of Sociology (3-0) 3 |
| or | |
| PSYCH 153 | Human Relations (Goals #7 & #9) (3-0) 3 |
| ELECTIVE* | 3-4 |
| 20-21 | |

| Winter Semester | |
|-----------------------------|--|
| (2nd year continued) | |
| (Lecture& Lab) | |
| CAP 240 | Pastries 2 (4-0) 4 |
| CAP 242 | Ala Carte (4-0) 4 |
| CAP 243 | Storeroom Operations (Goal #5) (4-0) 3 |
| POLS 105 | Survey of American Government (3-0) 3 |
| (Goals #4 & #9) | |
| ELECTIVES* | 6-7 |
| 20-21 | |
| PROGRAM TOTAL 78-82 CREDITS | |

The above program meets all General Education requirements.

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

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

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 General Education Goal courses.

| FIRST YEAR | |
|--------------------------|---|
| Fall Semester | |
| (Lecture& Lab) | |
| CAP 144 | Baking 1 (4-0) 4 |
| CAP 124 | Breakfast and Pantry (4-0) 4 |
| CAP 125 | Pastries 1 (4-0) 4 |
| CAP 141 | Culinary Sanitation** (2-0) 2 |
| ENG 100 | Communication Skills (3-0) 3 |
| 17 | |
| Winter Semester | |
| (Lecture& Lab) | |
| CAP 142 | Butchery (4-0) 4 |
| CAP 128 | Introduction to Food Techniques (4-0) 4 |
| CAP 143 | Dining Room Service (4-0) 4 |
| ENG 106 | Business English (3-0) 3 |
| BUS 105 | Business Math (3-0) 3 |
| CAP 241 | Culinary Nutrition** (2-0) 2 |
| 20 | |
| PROGRAM TOTAL 37 CREDITS | |

CULINARY MANAGEMENT

CULINARY MANAGEMENT (POST-ASSOCIATE CERTIFICATE)

(Schoolcraft Program Code #PAC.00157)

The new 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 general education goal courses concurrently to earn this Post-Associate Certificate. Individual cases will be reviewed at the discretion of the Culinary Arts department.

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

CULINARY MANAGEMENT CERTIFICATE REQUIREMENTS

| Fall Semester | |
|----------------------------|--|
| CM 213 | Culinary Management for Restaurant Operations 3 |
| CM 203 | Restaurant Concepts and Design 3 |
| CM 222 | Management Accounting in the Restaurant Industry 4 |
| Winter Semester | |
| CM 107 | Food and Culture 3 |
| CM 211 | Culinary Marketing for the Restaurant Industry 3 |
| Program Elective-Suggested | |
| CM 210 | Wine and Spirits 3 |

Completion of a minimum of 15 credit hours is essential.

Courses can be taken through independent study.

A student may choose an applicable 200-level elective.

EDUCATION

EDUCATION TRANSFER PROGRAM PRE-ELEMENTARY EDUCATION

(Schoolcraft program code # AA.00700)

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

| FIRST YEAR | |
|-----------------------------|---|
| Fall Semester | |
| ENG 101 | English Composition 3 |
| GEOG 130 | Physical Geography 4 |
| MATH 105 | Mathematics for Elementary Teachers 4 |
| POLS 105 | Survey of American Government 3 |
| CIS 115 | Introduction to Computer Based Systems 3 |
| or | |
| CIS 120 | Software Applications for the Microcomputer 3 |
| | 17 |
| Winter Semester | |
| ENG 102 | English Composition 3 |
| MUSIC 107 | Music for Elementary Teachers 4 |
| ART 113 | Art Education 3 |
| COMA 103 | Fundamentals of Speech 3 |
| HIST 151 ¹ | Early America (U.S. History) 3 |
| | 16 |
| SECOND YEAR | |
| Fall Semester | |
| ENG 203 | Children's Literature 3 |
| PE 240 | Physical Education for Elementary Teachers 3 |
| PSYCH 201 | General Psychology 4 |
| ELECTIVES ² | 5-6 |
| | 15-16 |
| Winter Semester | |
| ENG 243 | Introduction to Literature: Short Fiction 3 |
| PHIL 243 | Introduction to Philosophy 3 |
| GEOL 133 | Physical Geology ³ 4 |
| ELECTIVES ² | 5-6 |
| | 15-16 |
| PROGRAM TOTAL 63-65 CREDITS | |

¹ HIST 152 or HIST 153 may be substituted for HIST 151.

² Any combination of the following courses may be taken for 9 to 11 hours of electives:

CIS 115 (3) or CIS 120 (3), HIST 134 (4), HIST 137 (4), HIST 138 (3), PE Activities (maximum 2 credits), SOC 201 (3).

³ CHEM 111 may be substituted for GEOL 133.

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

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.

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

Students who satisfactorily complete the Electronic Technology Program and all General Education requirements qualify for an Associate in Applied Science Degree.

| FIRST YEAR | |
|-----------------|---|
| Fall Semester | |
| ELECT 127 | DC Circuits and Mathematical Modeling 5 |
| ELECT 119 | Basic Measurement and Reporting Skills 3 |
| PSYCH 153 | Human Relations 3 |
| ENG 100* | Communication Skills 3 |
| COMPS 124 | Introduction to Personal Computers and Software 3 |
| 17 | |
| Winter Semester | |
| ELECT 128 | AC Circuits and Mathematical Modeling 5 |
| ELECT 129 | Diodes and Transistors 3 |
| COMPS 126 | Technical Programming 3 |
| ENG 106* | Business English 3 |
| HUM 106 | Introduction to Art and Music 1 |
| 15 | |
| SECOND YEAR | |
| Fall Semester | |
| ELECT 206 | Operational Amplifiers and Linear Integrated Circuits 4 |
| ELECT 229 | Electronics Troubleshooting 3 |
| ELECT 134 | Introduction to Microprocessors 3 |
| ELECT 226 | Digital Logic Circuits 4 |
| 14 | |
| Winter Semester | |
| ELECT 135 | Fluid Power 4 |
| ELECT 237 | Programmable Logic and Industrial Controls 4 |
| POLS 105 | Survey of American Government 3 |
| ELECTIVE** | 3-4 |
| 14-15 | |

PROGRAM TOTAL 60-61 CREDITS

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

** Students wishing to transfer to a four-year institution may wish to select a Math elective.

ELECTRONICS SERVICE (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00125)

| Fall Semester | |
|-----------------|---|
| ELECT 127 | DC Circuits and Mathematical Modeling 5 |
| ELECT 135 | Fluid Power 4 |
| ELECT 119 | Basic Measurement and Reporting Skills 3 |
| COMPS 124 | Introduction to Personal Computers and Software 3 |
| 15 | |
| Winter Semester | |
| ELECT 128 | AC Circuits and Mathematical Modeling 5 |
| ELECT 129 | Diodes and Transistors 3 |
| ELECT 229 | Electronic Troubleshooting 3 |
| ELECT 237 | Programmable Logic and Industrial Controls 4 |
| 15 | |

PROGRAM TOTAL 30 CREDITS



EMERGENCY MEDICAL TECHNOLOGY

EMERGENCY MEDICAL TECHNOLOGY (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00024)

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 Consumer and Industry Service Emergency Medical Services Division 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. All the courses in the EMT program set an 80% achievement level for a 2.0 grade. 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. (coverage is good for one year)

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

| FIRST YEAR | |
|--|---|
| Fall Semester | |
| EMT 107 | Emergency Medical Technology - Basic 10.5 |
| | 10.5 |
| SECOND YEAR | |
| Fall, Winter, Spring Semester (40 weeks) | |
| EMT 155 | Paramedic Technology 18 |
| | 18 |
| PROGRAM TOTAL 28.5 CREDITS | |
| Elective (Optional) | |
| EMT 113 | Emergency Medical Technology Specialist 5 |

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

ENERGY SPECIALIST

ENERGY SPECIALIST (CERTIFICATE)

(Schoolcraft program code # 1YC.00156)

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

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

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

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

| Business | |
|--------------------------|---|
| ACCT 201 | Principles of Accounting 4 |
| BUS 226 | Principles of Marketing 3 |
| BUS 101 | Introduction to Business 3 |
| BUS 207 | Business Law 3 |
| CIS 115 | Introduction to Computer Based Systems 3 |
| | 16 |
| Communications | |
| ENG 101 | English Composition 3 |
| ENG 116 | Technical Writing 3 |
| COMA 103 | Fundamentals of Speech 3 |
| | 9 |
| Technical | |
| CAD 103 | Engineering Graphics 3 |
| DSGN 113 | Hydraulic/Pneumatic/Electrical Schematics 3 |
| CAD 105 | Mechanical Engineering Drawing 4 |
| CAD 107 | Detailing 4 |
| ELECT 127 | DC Circuits and Mathematical Modeling 5 |
| ELECT 128 | AC Circuits and Mathematical Modeling 5 |
| | 24 |
| PROGRAM TOTAL 49 CREDITS | |

Program Electives - Suggested Course Options

| | |
|----------|-----------------------------------|
| COMA 201 | Discussion 3 |
| ACCT 202 | Principles of Accounting 4 |
| BUS 217 | Business Management 3 |
| BUS 230 | Human Resource Management 3 |
| MATH 112 | Intermediate Algebra 5 |

ENGINEERING

ENGINEERING TRANSFER PROGRAM PRE-ENGINEERING

(Schoolcraft program code # AE.00039)

Pre-Engineering is a two-year Associate Degree program designed for students who wish to transfer to institutions offering a bachelor's degree in areas such as Mechanical, Electrical or Civil Engineering. Students who satisfactorily complete the Pre-Engineering curriculum and the General Education requirements qualify for an Associate in Engineering Degree.

| FIRST YEAR | |
|--------------------------|--|
| Fall Semester | |
| CHEM 111 | General Chemistry 4 |
| ENG 101* | English Composition (Minimum requirement) 3 |
| HUM** | Humanities Course 3 |
| MATH 150 | Calculus with Analytic Geometry 1 5 |
| | 15 |
| Winter Semester | |
| CHEM 117*** | General Chemistry and Qualitative Analysis 5 |
| DRFG 112 | Descriptive Geometry 3 |
| MATH 151 | Calculus with Analytic Geometry 2 5 |
| MATH 211 | Computer Programming - FORTRAN 77 3 |
| | 16 |
| Spring-Summer Session | |
| ENG 102 | English Composition 3 |
| HUM* | Humanities Course 3 |
| PSYCH 201 | General Psychology 4 |
| | 10 |
| SECOND YEAR | |
| Fall Semester | |
| ECON 201 | Principles of Economics 4 |
| COMA 103 | Fundamentals of Speech 3 |
| or | |
| ENG 116 | Technical Writing 3 |
| MATH 240 | Calculus with Analytic Geometry 3 5 |
| PHYS 211 | General Physics 5 |
| | 17 |
| Winter Semester | |
| ELECTIVE*** | 4 |
| MATH 252 | Differential Equations 5 |
| PHYS 212 | General Physics 5 |
| POLS 105 | Survey of American Government 3 |
| | 17 |
| PROGRAM TOTAL 75 CREDITS | |

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

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

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. According to a survey of local firms, the job market for environmental technicians is very strong. 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 Internet.

Students who satisfactorily complete the Environmental Technology Program qualify for an Associate Degree in Applied Science.

ENVIRONMENTAL TECHNOLOGY (ASSOCIATE DEGREE)

(Schoolcraft program code #AAS.00176)

| FIRST YEAR | |
|--------------------------|--|
| Fall Semester | |
| ENG 100* | Communication Skills 3 |
| GEOG 212 | Environmental Science 3 |
| GEOL 133 | Physical Geology 4 |
| or | |
| GEOG 130 | Physical Geography 4 |
| BIOL 101 | General Biology 4 |
| | 14 |
| Winter Semester | |
| MATH 119 | Trigonometry 3 |
| ENVR 107 | Soil Mechanics 4 |
| CIS 115** | Introduction to Computer Based Systems 3 |
| CHEM 111 | General Chemistry 4 |
| HUM 106*** | Introduction to Art and Music 1 |
| | 15 |
| SECOND YEAR | |
| Fall Semester | |
| ENVR 202 | Environmental Microbiology 5 |
| ENVR 204 | Introductory Surveying 3 |
| POLS 105 | Survey of American Government 3 |
| ENVR 206 | Environmental Law and Regulations 3 |
| | 14 |
| Winter Semester | |
| ENVR 211 | Health and Safety Training for Handling Hazardous Materials (40-Hour OSHA Training) ... 3 |
| PE 121 | First Aid 2 |
| ENG 116 | Technical Writing 3 |
| ENVR 215 | Environmental Seminar 1 |
| ENVR 217 | Environmental Hydrology 3 |
| | 12 |
| Spring/Summer Session | |
| ENVR 231 | Field Co-op Experience 5 |
| | 5 |
| PROGRAM TOTAL 60 CREDITS | |

* ENG 101 can be substituted. If ENG 101 is selected, then a General Education Goal #3 course must also be taken.

** CIS 115 or a higher CIS course that satisfies General Education Goal #5.

*** Students transferring to University of Michigan - Dearborn must complete a 3 hour Humanities course.

The above program meets all General Education requirements.

FIRE TECHNOLOGY

FIRE TECHNOLOGY (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00177)

Extinguishing fires places increasing demands on firefighters. No longer is directing a water stream on a burning building adequate. With the increase in hazardous materials on properties and the variety of synthetic building materials, firefighting has become an art, requiring specialized training with an emphasis on analysis and decision-making skills. It takes a team effort and a wealth of knowledge to fight fires today.

Recognizing the need for more highly skilled firefighters, many municipalities now require additional education for their employees. The curriculum developed for the associate in applied science degree program combines lecture with hands-on activities to prepare the student to respond to a variety of emergencies. Specialists in the field provided 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 the General Education Goal requirements qualifies for an Associate in Applied Science Degree with emphasis in Fire Technology.

| FIRST YEAR | |
|---------------------------------|---|
| Fall Semester | |
| ENG 100 | Communication Skills 3 |
| FIRE 112 | Firefighter 1 - Basic Fire Suppression 10 |
| ELECTIVE* | 3-4 |
| | 16-17 |
| Winter Semester | |
| ENG 116 | Technical Writing 3 |
| FIRE 118 | Firefighter 2 - Advanced Fire Suppression 8 |
| BUS 105 | Business Mathematics 3 |
| FIRE** | Special Topics 1 |
| | 15 |
| SECOND YEAR | |
| Fall Semester | |
| EMT 107 | Emergency Medical Technology - Basic 10.5 |
| CIS 105 | Computer Orientation 1 |
| HUM 106 | Introduction to Art and Music 1 |
| ELECTIVE* | 3-4 |
| | 15.5-16.5 |
| Winter Semester | |
| FIRE 200 | Fire and Arson Investigation 4 |
| POLS 105 | Survey of American Government 3 |
| FIRE 210 | Cultural Diversity for Public Safety 3 |
| PSYCH 153 | Human Relations 3 |
| QM 106 | Introduction to Quality Systems 3 |
| | 16 |
| PROGRAM TOTAL 62.5-63.5 CREDITS | |

*Recommended Electives

| | |
|----------|---|
| CJ 104 | Introduction to Security 3 |
| FIRE 128 | Firefighting Hydraulics and Water Supply 4 |
| 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 |

**Special Topics

| | |
|----------|---------------------------------|
| FIRE 141 | Incident Command System 1 |
| FIRE 142 | Terrorism Awareness 1 |

FIRE TECHNOLOGY (ASSOCIATE DEGREE - WITH ACADEMY)

(Schoolcraft program code # AAS.00177)

Extinguishing fires places increasing demands on firefighters. No longer is directing a water stream on a burning building adequate. With the increase in hazardous materials on properties and the variety of synthetic building materials, firefighting has become an art, requiring specialized training with an emphasis on analysis and decision-making skills. It takes a team effort and a wealth of knowledge to fight fires today.

Recognizing the need for more highly skilled firefighters, many municipalities now require additional education for their employees. The curriculum developed for the associate in applied science degree program combines lecture with hands-on activities to prepare the student to respond to a variety of emergencies. Specialists in the field provided valuable input on both content and methodology.

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 the General Education Goal requirements qualifies for an Associate in Applied Science Degree with Emphasis in Fire Technology.

| FIRST YEAR | |
|---------------------------------|---|
| Fall Semester | |
| FIRE 123 | Fire Academy 18 |
| | 18 |
| Winter Semester | |
| ENG 100 | Communication Skills 3 |
| EMT 107 | Emergency Medical Technology-Basic 10.5 |
| CIS 105 | Computer Orientation 1 |
| HUM 106 | Introduction to Art and Music 1 |
| | 15.5 |
| SECOND YEAR | |
| Fall Semester | |
| ENG 116 | Technical Writing 3 |
| BUS 105 | Business Mathematics 3 |
| ELECTIVE* | 3-4 |
| FIRE 200 | Fire and Arson Investigation 4 |
| FIRE 210 | Cultural Diversity for Public Safety 3 |
| | 16-17 |
| Winter Semester | |
| 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 |
| | 13-14 |
| PROGRAM TOTAL 62.5-63.5 CREDITS | |

*Recommended Electives

| | |
|----------|---|
| CJ 104 | Introduction to Security 3 |
| FIRE 128 | Firefighting Hydraulics and Water Supply 4 |
| 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 |

**Special Topics

| | |
|----------|---------------------------------|
| FIRE 141 | Incident Command System 1 |
| FIRE 142 | Terrorism Awareness 1 |

FIREFIGHTER TECHNOLOGY (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00149)

The Firefighter Technology Program provides career training for fire protection technicians. The program is offered in cooperation with the Michigan Fire Fighters Training Council and focuses on meeting the needs of fire service personnel. It is designed for students who are currently employed by Michigan Fire Marshal-recognized fire departments, are currently seeking employment, and/or are volunteers in recognized fire districts. All courses meet the state-mandated requirements for preparing students to take the state exam for certification as entry-level fire fighters.

All of the fire certificate courses require students to attain an average of 70% or better on test scores and to score at least 70% on their final exam to receive a passing grade of 2.0. Below 70% will receive a grade of 0.0 for the individual course. The EMT course requires an average of 80% on tests and an 80% on the final for a grade of 2.0. Below 80% 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 Fire Fighter Technology Certificate.

| FIRST YEAR | |
|----------------------------|--|
| Fall Semester | |
| FIRE 112 | Fire Fighter 1-Basic Fire Suppression 10 |
| Winter Semester | |
| FIRE 118 | Fire Fighter 2-Advanced Fire Suppression 8 |
| Spring Semester | |
| EMT 107 | Emergency Medical Technology-Basic 10.5 |
| PROGRAM TOTAL 28.5 CREDITS | |
| (Alternate) FIRST YEAR | |
| Fall Semester | |
| FIRE 123 | Fire Academy 18 |
| Winter Semester | |
| EMT 107 | Emergency Medical Technology-Basic 10.5 |

HEALTH INFORMATION TECHNOLOGY

HEALTH INFORMATION TECHNOLOGY
(ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00153)

The Health Information Technology program is a two-year associate degree program that can be completed on a full or part-time basis. The program is designed to coordinate classroom and laboratory experience along with practical experience in a variety of healthcare facilities such as acute care hospital, nursing facility, or ambulatory care center.

The Health Information Technology program is designed to prepare the student to be a specialist who maintains permanent documentation of a patient's medical care and provides data for a variety of health information needs. The health information technician is interested in the latest technology, business management, and healthcare.

In the program, students apply the following skills:

- Organizing, analyzing and evaluating health record content for completeness and accuracy
- Assigning code numbers to report diagnoses and process reimbursement claims
- Answering legal, government, and insurance company inquiries
- Supervising staff for efficient health record processing.

Students will participate in courses designated as Clinical Affiliation (Off-Campus assignments). These courses provide supervised professional practice assignments to gain experience in applying knowledge to technical procedures in health information systems.

The Health Information Technology program is open to students officially admitted to the program.

Health Information Technology courses must be taken in sequence and a minimum grade of 2.0 is required for progression to the next health information technology course. A minimum grade of 2.0 is also required for the basic science courses. It is highly recommended that the program applicant first complete BIOL 235 or BIOL 237/238 before program entry. Graduates are eligible to take the Registered Health Information Technician (RHIT) examination.

The Health Information Technology program is accredited by the Commission on the Accreditation of Allied Health Educational Programs in cooperation with the American Health Information Management Association's Council on Accreditation. For more information please contact:

American Health Information Management Association
919 North Michigan Avenue, Suite 1400
Chicago, IL 60611-1683

| FIRST YEAR | |
|--------------------------|--|
| Fall Semester | |
| HIT 104* | Medical Terminology 4 |
| HIT 109 | Principles Health Information Management 1 3 |
| BIOL 235** | Anatomy and Physiology 4 |
| ENG 101 | English Composition 3 |
| CIS 120 | Software Applications for the Microcomputer 3 |
| | 17 |
| Winter Semester | |
| HUM 106 | Introduction to Art and Music 1 |
| HIT 111 | ICD-9-CM Classification 3 |
| HIT 155 | Clinical Affiliation 1 1 |
| HIT 153 | Health Record Practicum 2 |
| ENG 102 | English Composition 3 |
| COMA 103 | Fundamentals of Speech 3 |
| | 13 |
| Spring/Summer Session | |
| BUS 105 | Business Math 3 |
| HIT 271 | Human Diseases 4 |
| | 7 |
| SECOND YEAR | |
| Fall Semester | |
| HIT 215 | Current Procedural Terminology (CPT) Coding 2 |
| HIT 210 | Principles of Health Information Management 2 3 |
| HIT 214 | Quality Assurance 3 |
| HIT 216 | Health Care Delivery Systems 2 |
| HIT 256 | Clinical Affiliation 2 2 |
| POLS 105 | Survey of American Government 3 |
| | 15 |
| Winter Semester | |
| HIT 225 | Advanced Clinical Topics for ICD-9-CM Classification 2 |
| HIT 213 | Health Information Technology Seminar 1 |
| HIT 219 | Organization and Management 2 |
| HIT 220 | Legal Aspects of Health Information 3 |
| HIT 258 | Clinical Affiliation 3 2 |
| PSYCH 153 | Human Relations 3 |
| ELECTIVE | 3 |
| | 16 |
| PROGRAM TOTAL 68 CREDITS | |

* These courses may be taken prior to admission to the Health Information Program, according to prerequisites.

** Students desiring transfer credit should substitute BIOL 237 & BIOL 238 and may select PSYCH 201 instead of PSYCH 153.

The above program meets all General Education requirements

LASER TECHNOLOGY

LASER TECHNOLOGY (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00059)

Laser Technology is one of several careers in technology that are characterized by involvement with electronics, mechanics and digital logic. The basic elements of scientific theory and principles underlying the elements of laser systems are covered in this certificate program. Technicians will learn about the laser parameters associated in metal fusion; material cutting, shaping, piercing; biomedical surgery and heat treating of various materials.

Laser technicians are specialists who install, construct, operate, test, repair, and maintain systems that incorporate electronics power supplies and optics on laser application for Business, Industry, and Medicine.

Students who complete the Laser Certificate qualify for a certificate of Program Completion.

| FIRST YEAR | |
|--------------------------|---|
| Fall Semester | |
| LASR 103 | Laser Concepts 4 |
| ELECT 127 | DC Circuits and Mathematical Modeling 5 |
| MATH 112 | Intermediate Algebra 5 |
| | 14 |
| Winter Semester | |
| LASR 104 | Laser Optics and Components 5 |
| ELECT 128 | AC Circuits and Mathematical Modeling 5 |
| CAD 101 | Introduction to Computer Aided Drafting 3 |
| | 13 |
| SECOND YEAR | |
| Fall Semester | |
| LASR 232 | Laser Systems and Applications 1 4 |
| CIM 230 | Programmable Logic Controller Programming 4 |
| | 8 |
| PROGRAM TOTAL 35 CREDITS | |

MANUFACTURING

MANUFACTURING FOR QUALITY PRODUCTION (ASSOCIATE DEGREE)

(Schoolcraft program code #ASS.00135)

The Manufacturing for Quality Production program is designed to provide students with growth and development in a variety of manufacturing processes, to expose them to materials and methods of production and make them aware of planning and quality requirements of the various related processes. It should enable graduates to seek employment as management trainees or technicians to support manufacturing engineers in design and development activities.

Protective shop clothing and eye protection supplies required for the program will be purchased by the student.

The student who satisfactorily completes the Manufacturing for Quality Production curriculum and all General Education requirements qualifies for an Associate in Applied Science Degree.

| FIRST YEAR | |
|-----------------------------|---|
| Fall Semester | |
| ENG 100 | Communication Skills 3 |
| MATH 112 | Intermediate Algebra 5 |
| CAM 102 | Introduction to Computer Numerical Control (CNC) 3 |
| MFG 102 | Basic Machining, Measurements and Manufacturing Processes 3 |
| | 14 |
| Winter Semester | |
| MET 102 | Introduction to Materials Science 3 |
| CAM 103 | Computer Numerical Control Programming 3 |
| MFG 103 | Manufacturing Theory and Machine Operation 3 |
| COMPS 126 | Technical Programming 3 |
| or | |
| CIS 120 | Software Applications for the Microcomputer 3 |
| QM 106 | Introduction to Quality Systems 3 |
| | 15 |
| Spring Session | |
| QM 108 | Quality Statistical Methods. 3 |
| | 3 |
| SECOND YEAR | |
| Fall Semester | |
| ENG 106 | Business English 3 |
| MATH 119 | Trigonometry 3 |
| CIM 217 | Robotics Programming 3 |
| LASR 103 | Laser Concepts 4 |
| or | |
| ELECT 135 | Fluid Power 4 |
| QM 107 | Quality Planning and Team Building 3 |
| | 16-17 |
| Winter Semester | |
| POLS 105 | Survey of American Government 3 |
| CIM 230 | Programmable Logic Controller Programming 4 |
| QM 112 | Facilitating Quality Systems 3 |
| PSYCH 153 | Human Relations 3 |
| HUM 106 | Introduction to Art and Music 1 |
| MFG 243 | Manufacturing Systems Analysis 3 |
| | 17 |
| PROGRAM TOTAL 65-66 CREDITS | |

The above program meets all General Education requirements.

MARKETING - APPLIED MANAGEMENT

MARKETING AND APPLIED MANAGEMENT (ASSOCIATE DEGREE)

(Schoolcraft program code #AAS.00009)

The Schoolcraft College Marketing and Applied Management program produces well-trained individuals who work in the distribution of goods and services. These individuals serve the customer and represent the company to the consumer. Therefore, graduates must be able to think, communicate and apply a knowledge of business.

Career opportunities are available in occupations ranging from buying and selling to distribution management.

Students who satisfactorily complete the Marketing and Applied Management curriculum and all General Education requirements qualify for an Associate in Applied Science Degree.

| FIRST YEAR | | |
|-----------------------------|---|-------|
| Fall Semester | | |
| BUS 101 | Introduction to Business | 3 |
| BUS 122 | Advertising | 3 |
| BUS 161 | Retail Principles & Practices | 3 |
| ACCT 103 | Introduction to Accounting | 4 |
| or | | |
| ACCT 201 | Principles of Accounting | 4 |
| ENG 101 | English Composition | 3 |
| | | 16 |
| Winter Semester | | |
| BUS 105 | Business Math | 3 |
| BUS 120 | Principles of Salesmanship | 3 |
| BUS 162 | Retail Merchandising | 3 |
| ENG 102 | English Composition | 3 |
| or | | |
| ENG 106 | Business English | 3 |
| PSYCH 153 | Human Relations | 3 |
| or | | |
| PSYCH 201 | General Psychology | 4 |
| | | 15-16 |
| SECOND YEAR | | |
| Fall Semester | | |
| BUS 217 | Business Management | 3 |
| BUS 220 | Supervision | 3 |
| COMA 103 | Fundamentals of Speech | 3 |
| ECON 103 | Introductory Economics | 3 |
| or | | |
| ECON 201 | Principles of Economics | 4 |
| ELECTIVE* | | 3 |
| | | 15-16 |
| Winter Semester | | |
| BUS 226 | Principles of Marketing | 3 |
| BUS 230 | Human Resources Management | 3 |
| CIS 120 | Software Applications for the Microcomputer | 3 |
| POLS 105 | Survey of American Government | 3 |
| ELECTIVE* | | 3 |
| | | 15 |
| PROGRAM TOTAL 61-63 CREDITS | | |

* Suggested electives: BUS 204, 205, 208; CIS 120, 180, 215; ENG 116; or OIS 100.

The above program meets all General Education requirements.

MEDICAL ASSISTING

MEDICAL ASSISTING (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00026)

The Medical Assisting Program is a one-year certificate program. Students may elect to complete the program in three semesters (Fall, Winter, and Spring/Summer) or on a part-time basis. The program is designed to coordinate classroom and laboratory experience with practical experience in a healthcare facility such as the physician's office.

Medical assistants are multiskilled allied health professionals who perform a wide range of roles in physicians' offices, clinics and other healthcare settings. They are proficient in a multitude of clinical and administrative tasks and are widely viewed by doctors as vital members of the healthcare delivery team.

Students are required to achieve a grade of 2.0 or better for all courses. Academic and medical assisting courses must be completed by the end of the Winter semester to be eligible for placement in the Office Practicum offered in the Spring.

The Office Practicum is an externship that is structured to provide experiences in applying knowledge, in performing administrative and clinical procedures and in developing professional attitudes for interacting with other professionals and consumers in a healthcare facility.

Students who satisfactorily complete the required curriculum qualify for a Certificate of Program completion. Student who elect to continue their education may apply these credits toward an associate degree.

The Medical Assisting Program is open to students officially admitted to the program.

The Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) on recommendation of the Curriculum Review Board of the American Association of Medical Assistant's Endowment (AAMAE). Graduates are eligible to take the Certified Medical Assistant (CMA) examination conducted by the certifying board of the American Association of Medical Assistants. For more information please contact:

American Association of Medical Assistant's Endowment
20 North Wacker Drive, Suite 1575
Chicago, Illinois 60606-2903

| FIRST YEAR | | |
|--------------------------|--|----|
| Fall Semester | | |
| MA 134* | Medical Insurance Coding | 3 |
| MA 110 | Phlebotomy | 4 |
| MA 140 | Medical Office Procedures | 3 |
| HIT 104* | Medical Terminology | 4 |
| CIS 105 | Computer Orientation | 1 |
| BIOL 105 | Elementary Human Anatomy and Physiology .. | 4 |
| | | 19 |
| Winter Semester | | |
| HIT 271 | Human Diseases | 4 |
| MA 174 | Medical Lab Techniques | 4 |
| MA 180 | Medical Office Clinical Procedures | 4 |
| MA 155 | Medical Insurance Billing | 3 |
| MT 108 | Physician Office Transcription | 2 |
| PSYCH 153 | Human Relations | 3 |
| | | 20 |
| Spring/Summer Session | | |
| ENG 101 | English Composition | 3 |
| MA 195 | Office Practicum | 3 |
| | | 6 |
| PROGRAM TOTAL 45 CREDITS | | |

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

MEDICAL TRANSCRIPTION

MEDICAL TRANSCRIPTION (ONE-YEAR CERTIFICATE)

(Schoolcraft program code #1YC.00029)

The Medical Transcription program prepares the student for entry-level employment as a medical transcriptionist in a variety of healthcare settings or as a self-employed transcriptionist. The medical transcriptionist is a specialist who interprets and transcribes dictation by physicians and other healthcare professionals in order to document patient care.

In the program students apply the following:

- Typing and word processing skills
- Spelling, editing, and proofreading
- Medical terminology used in medical reports, surgical procedures, drugs, instruments and laboratory tests
- Terms related to human anatomy, physiology and pathophysiology
- English grammar, structure and style
- Medical transcription forms, styles and practices
- Medical/surgical reference materials.

The courses designated as Medical Transcription 1, 2, 3 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.

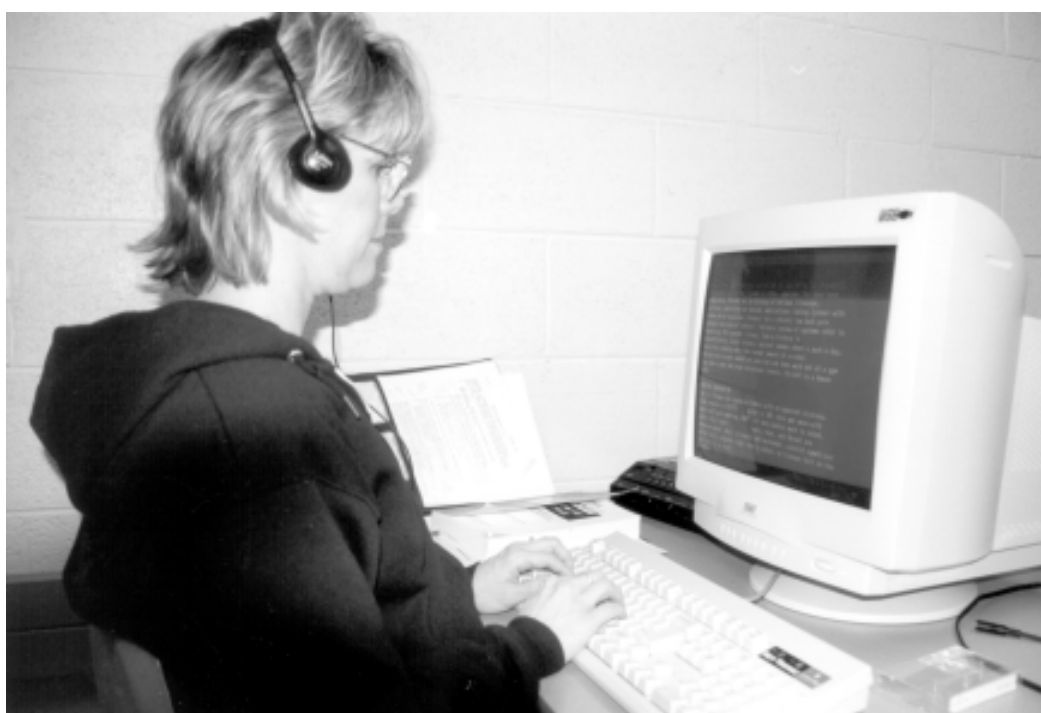
Students who satisfactorily complete the required curriculum qualify for a Certificate of Program completion. Students who elect to continue their education may apply these credits toward an Associate Degree.

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).

The Medical Transcription program is open to students officially admitted to the program.

| FIRST YEAR | |
|-----------------|--|
| Fall Semester | |
| BIOL 105 | Elementary Human Anatomy and Physiology 1 4 |
| HIT 104* | Medical Terminology 4 |
| OIS 105 | Office Communications and Editing Skills 3 |
| or | |
| OIS 165 | Microsoft Word for Windows 3 |
| MT 108 | Physician Office Transcription 2 |
| MT 106 | Principles of Medical Transcription 2 |
| | 15 |
| Winter Semester | |
| HIT 271 | Human Diseases 4 |
| MT 156 | Integrated Medical Tests and Therapies 3 |
| MT 157 | Medical Transcription Seminar 1 |
| MT 158 | Medical Transcription 2 5 |
| | 13 |
| Spring Session | |
| MT 159 | Medical Transcription 3 5 |
| | PROGRAM TOTAL 33 CREDITS |

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



METALLURGY

METALLURGY AND MATERIALS SCIENCE (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00184)

The Metallurgy and Materials Science program has been specifically designed to accommodate most areas of industry associated with research, development, manufacturing and materials control. Carefully selecting electives will prepare students for specialization. Students interested in the laboratory control of processing may wish to select electives in welding, fabrication, manufacturing processes or quality control. Likewise, students interested in development or industrial research may wish to complete electives in materials or physical science, design or computer technology.

Metallurgy and Materials Science graduates have knowledge of the philosophy of metallic and nonmetallic materials used in industry and can apply principles basic to scientific laboratory investigation, research, product development and process control.

Students who satisfactorily complete the Metallurgy and Materials Science curriculum and all General Education requirements qualify for an Associate in Applied Science Degree.*

| FIRST YEAR | |
|-----------------------------|--|
| Fall Semester | |
| MET 102 | Introduction to Materials Science 3 |
| MFG 102 | Basic Machining, Measurements and Manufacturing Processes 3 |
| MET 120 | Hazardous Materials Management 2 |
| ENG 100 | Communication Skills 3 |
| MET 160 | Composite Materials 3 |
| CIS 105 | Computer Orientation 1 |
| | 15 |
| Winter Semester | |
| MET 114 | Advanced Materials and Applications 3 |
| MET 152 | Structure and Properties Laboratory 3 |
| MATH 112 | Intermediate Algebra 5 |
| HUM 106 | Introduction to Art and Music 1 |
| ENG 106 | Business English 3 |
| | 15 |
| SECOND YEAR | |
| Fall Semester | |
| MET 211 | Physical Metallurgy Structures 3 |
| MET 215 | Mechanical Properties of Metals 3 |
| MET 217 | Computer Applications for Materials Science 3 |
| MATH 122 | Elementary Statistics 4 |
| POLS 105 | Survey of American Government 3 |
| | 16 |
| Winter Semester | |
| WELD 113 | Shielded Metallic Arc Welding 3 |
| PSYCH 153 | Human Relations 3 |
| MET 223 | Mechanical Properties Laboratory 3 |
| MET 230 | Compacted Particle Materials Science 3 |
| MET 125 | Cooperative Metallurgical Experience 1 4 |
| or | |
| ELECTIVE | 3 |
| | 15-16 |
| PROGRAM TOTAL 61-62 CREDITS | |

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

METALLURGY - APPLIED PHYSICAL (ONE YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00124)

The Applied Physical Metallurgy certificate program is designed to provide people currently employed in the field with an opportunity to reinforce skills and acquire academic foundations necessary for advancement in the laboratory and related process situations. The program is oriented to property, process and structure areas of study and is designed and scheduled with consideration for part-time students.

Students who satisfactorily complete the Applied Physical Metallurgy Certificate curriculum qualify for a Certificate of Program Completion.

| FIRST YEAR | |
|--------------------------|--|
| Fall Semester | |
| MET 102 | Introduction to Materials Science 3 |
| MFG 102 | Basic Machining, Measurements and Manufacturing Processes 3 |
| QM 106 | Introduction to Quality Systems 3 |
| | 9 |
| Winter Semester | |
| WELD 113 | Shielded Metallic Arc Welding (S.M.A.W.) 3 |
| MET 114 | Advanced Materials and Applications 3 |
| MET 120 | Hazardous Materials Management 2 |
| | 8 |
| SECOND YEAR | |
| Fall Semester | |
| MET 152 | Structure and Properties Lab 3 |
| MET 211 | Physical Metallurgy Structures 3 |
| MFG 243 | Manufacturing Systems Analysis 3 |
| | 9 |
| Winter Semester | |
| ELECTIVE | MET 3 |
| MET 215 | Mechanical Properties of Metals 3 |
| MET 280 | Special Problems in Materials Science 4 |
| | 10 |
| PROGRAM TOTAL 36 CREDITS | |

MATERIALS SCIENCE (POST-ASSOCIATE CERTIFICATE)

(Schoolcraft program code # PAC.00179)

This Post-Associate Certificate in Materials Science is designed for working professionals who have industrial experience and/or training in the materials science field and who wish to study current technologies applied to laboratory practice and other materials-related endeavors.

Completion of this program will enhance students' abilities to meet the needs of current and changing industrial technologies in metallurgical and materials science applications, processing, and control environments. It will also provide support background for managerial and technical personnel who have direct responsibilities in industrial materials operations and planning. These courses are also intended to meet requirements for current and future professional certification.

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

| Fall Semester | |
|-----------------|---|
| MET 211 | Physical Metallurgy Structures 3 |
| MET 215 | Mechanical Properties of Metals 3 |
| MET 217 | Computer Applications Materials Science 3 |
| | 9 |
| Winter Semester | |
| MET 280 | Special Problems in Materials Science 4 |
| MET 223 | Mechanical Properties Laboratory 3 |
| MET 230 | Compacted Particle Materials Science 3 |
| | 10 |

Completion of a minimum of 15 credit hours is essential.

Courses can be taken through independent study.

A student may choose an applicable 200-level elective.

MUSIC

MUSIC FOUNDATIONS CERTIFICATE (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00162)

Successful students completing this certificate will be able to notate all intervals, simple rhythmic patterns and basic chord progressions.

Students will have a good general knowledge of musical styles from the 1600s to the present day; will have gained experience in performing publicly in ensembles; and will also have developed elementary training as soloists in voice or as instrumentalists.

| Fall Semester | |
|----------------------------------|---|
| MUSIC 103 | Basic Materials in Music Theory 3 |
| MUSIC 121 or 131 | Class or Private (Applied) Piano 2 |
| MUSIC 105 | Music Appreciation 3 |
| MUSIC 110 or 125, or 111, or 141 | Music Ensemble 1-2 |
| MUSIC 133 or 135 | Applied Music, Voice or Instrument 2 |
| ELECTIVE | English Literature or Poetry, Art Appreciation suggested 3 |
| HUM 106 | Introduction to Art and Music 1 |
| 15-16 | |
| Winter Semester | |
| MUSIC 164 or 165 | Music History 3 |
| MUSIC 122 or 133 | Class or Private (Applied) Piano 2 |
| MUSIC 120 or 126, or 112, or 142 | Music Ensemble 1-2 |
| MUSIC 134 or 136 | Applied Music, Voice or Instrument 2 |
| MUSIC 171 | Music Technology 1 3 |
| ELECTIVE | (See Fall Semester Suggestions) 3 |
| 14-15 | |
| PROGRAM TOTAL 29-31 CREDITS | |

MUSIC INTERMEDIATE CERTIFICATE (ONE-YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00163)

Successful students completing this certificate will be able to notate moderately difficult rhythmic patterns and moderately difficult chord progressions. Students will have developed a more specific knowledge of music from the 1600s to the present day. Students will have gained experience in performing publicly in ensembles, and will have developed technical and musical skills as well as experience to perform as soloists in voice or as instrumentalists in public recitals and concerts.

| Fall Semester | |
|----------------------------------|--|
| MUSIC 128 | Sight Singing and Ear Training 1 1 |
| MUSIC 164 or 165 | Music History 1 3 |
| MUSIC 153 | Music Theory 3 |
| MUSIC 210 or 225, or 211, or 241 | Music Ensemble 1-2 |
| MUSIC 171 | Music Technology 1 3 |
| MUSIC 231 | Applied Piano 2 |
| MUSIC 233 or 235 | Applied Music, Voice or Instrument 2 |
| 15-16 | |
| Winter Semester | |
| MUSIC 129 | Sight Singing and Ear Training 2 1 |
| MUSIC 164 or 165 | Music History 1 3 |
| MUSIC 154 | Music Theory 3 |
| MUSIC 220 or 226, or 212, or 242 | Music Ensemble 1-2 |
| MUSIC 232 | Applied Piano 2 |
| MUSIC 234 or 236 | Applied Music, Voice or Instrument 2 |
| ELECTIVE | (English Literature, Poetry, or Art Appreciation suggested) 3 |
| 15-16 | |
| PROGRAM TOTAL 30-32 CREDITS | |

NURSING - ADN

NURSING-REGISTERED (ASSOCIATE DEGREE)

(Schoolcraft program code #AAS.00000)

The Associate Degree Nursing Program prepares students who have demonstrated the potential to fulfill the requirements for the Associate in Applied Science Degree for entry level nursing practice. Schoolcraft College Nursing Programs have uniquely structured preadmission 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 16-week semesters and an 8-week Spring Session. Nursing courses must be taken in sequence and a minimum grade of 2.0 is required for progression to the next nursing course. A minimum grade of 2.5 is required for the basic science courses. Academic courses other than nursing must be completed by the completion of the nursing courses. Students must furnish and maintain uniforms, lab coats, or other appropriate apparel required by the institution they are assigned for clinical instruction. Clinical assignments will be completed in acute care and community settings. Computer lab use is required in this program. See "Academic Computing Labs" in this catalog for policy requirements.

The student who satisfactorily completes the Associate Degree Nursing curriculum and all General Education requirements qualifies for an Associate in Applied Science Degree and is eligible to apply to write the National Council Licensure Examination for Registered Nursing (NCLEX-RN). This Nursing program is offered at the Livonia Campus.

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES

| | |
|-----------|-------------------------------------|
| BIOL 235* | Anatomy and Physiology 4 |
| ENG 101 | English Composition 3 |
| BIOL 243 | Microbiology 4 |
| AHE 101 | Introduction to Health Care 1 |
| 12 | |

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 | Goal #8 course 1-4 |
| 11-14 | |

PROGRAM TOTAL 70-73 CREDITS

* Students who may transfer to a baccalaureate program should elect the BIOL 237-238 sequence. Please review and follow all course prerequisites. In addition to the above schedule, it is recommended that students take BIOL 115, Nutrition, prior to entering the program.

The above program meets all General Education requirements.

NURSING - PRACTICAL

NURSING — LICENSED PRACTICAL (ONE-YEAR CERTIFICATE)

(Schoolcraft program code #1YC.00017)

Practical nursing courses are open only to students who are officially admitted to the Practical Nursing program.

Courses are designed to provide theory and practice in practical nursing for employment 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 16-week semesters, an eight-week spring session and a four-week summer session. The practical nurse 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.

| FIRST YEAR | |
|--------------------------|---|
| Fall Semester | |
| AHE 101 | Introduction to Health Care 1 |
| PN 102 | Fundamentals of Practical Nursing 8 |
| PN 107 | Human Behavior and Relationships 4 |
| BIOL 105 | Elementary Human Anatomy and Physiology 1 (PN) 4 |
| | 17 |
| Winter Semester | |
| PN 119 | Mental Health Nursing 3 |
| PN 123 | Nursing Adult Patients 10 |
| | 13 |
| Spring Session | |
| PN 128 | Trends in Practical Nursing 1 |
| PN 130 | Maternal and Child Nursing 5 |
| | 6 |
| Summer Session | |
| PN 135 | Transition to Employment 3 |
| | 3 |
| PROGRAM TOTAL 39 CREDITS | |

NURSING — LICENSED PRACTICAL (ASSOCIATE DEGREE IN GENERAL STUDIES)

(Schoolcraft program code # AAS.00126)

This Associate Degree in General Studies is designed for practical nursing certificate students who wish to earn an associate degree.

Upon successful completion of the first year of study, summer session, students will be awarded a certificate in Practical Nursing, and will then be eligible to write the national licensing examination for practical nursing.

Upon completion of the second year of the program, students will qualify for an Associate Degree in General Studies, having met all degree and goal requirements. Many of the courses will meet the requirements of the Associate Degree in Applied Science/Nursing if graduates wish to continue their education in nursing.

| FIRST YEAR | |
|--------------------------|--|
| Fall Semester | |
| AHE 101 | Introduction to Health Care (Goal #5) 1 |
| PN 102 | Fundamentals of Practical Nursing 8 |
| PN 107 | Human Behavior and Relationships 4 |
| BIOL 105 | Elementary Human Anatomy and Physiology 1 (Goal #6) 4 |
| | 17 |
| or | |
| BIOL 235* | Anatomy and Physiology 4 |
| | 17 |
| Winter Semester | |
| PN 123 | Nursing Adult Patients 10 |
| PSYCH 201 | General Psychology (Goal #7) 4 |
| SOC 201 | Principles of Sociology (Goal #9) 3 |
| | 17 |
| Spring Session (8 Weeks) | |
| PN 128 | Trends in Practical Nursing 1 |
| PN 130 | Maternal and Child Nursing 5 |
| | 6 |
| Summer Session (4 Weeks) | |
| PN 135 | Transition to Employment 3 |
| | 3 |
| SECOND YEAR | |
| Fall Semester | |
| ENG 101 | English Composition (Goal #2) 3 |
| BIOL 115 | Nutrition (Goal #7) 3 |
| MATH | (Goal #1) 5 |
| HUM 106 | Introduction to Art and Music (Goal #8) 1 |
| | 12 |
| Winter Semester | |
| ENG 102 | English Composition (Goal #2) 3 |
| COMA 103 | Fundamentals of Speech (Goal #3) 3 |
| PSYCH 209 | Child Psychology 3 |
| POLS 105 | Survey of American Government (Goals #4 & #10) 3 |
| | 12 |
| PROGRAM TOTAL 67 CREDITS | |

* Students who may want to transfer to an associate degree nursing program should elect to take BIOL 235 or the BIOL 237-238 sequence.

The above program meets all General Education requirements.

OCCUPATIONAL THERAPY

OCCUPATIONAL THERAPY ASSISTANT (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00019)

This program contains courses restricted to students officially admitted to this program. Enrollment information for restricted programs is available through the office of admissions.

Courses prepare graduates for employment as assistants to registered occupational therapists in general hospitals, psychiatric hospitals, nursing homes, day care centers, home health care programs and special education facilities.

Instruction throughout the curriculum consists of classroom lectures and demonstrations, therapeutic activities and practical experience under direct supervision. A minimum grade of 2.0 is necessary for satisfactory completion of all occupational therapy courses.

Students must furnish and maintain uniforms, lab coats or other appropriate apparel required. All students participating at clinical sites will be required to purchase liability insurance. Coverage is good for one year.

Students who satisfactorily complete the Occupational Therapy Assistant curriculum and all General Education requirements qualify for an Associate in Applied Science Degree.

| FIRST YEAR | |
|--|--|
| Fall Semester | |
| AHE 101 | Introduction to Health Care 1 |
| OT 100 | Orientation 1 |
| OT 123 | Growth Develop/Application and Analysis 1 5 |
| OT 104 | Theory and Practice Level 1A - Children 3 |
| ENG 100 | Communication Skills 3 |
| or | |
| ENG 101 | English Composition 3 |
| POLS 105 | Survey of American Government 3 |
| | 16 |
| Winter Semester | |
| OT 125 | Growth Develop/Application and Analysis 2 5 |
| OT 114 | Theory and Practice Level 1B - Adults 3 |
| ENG 116 | Technical Writing 3 |
| or | |
| ENG 102 | English Composition 3 |
| BIOL 105 | Elementary Human Anatomy and Physiology 1 4 |
| | 15 |
| SECOND YEAR | |
| Fall Semester | |
| OT 200 | Muscle Function 4 |
| OT 201 | Clinical Conditions - Physical Dysfunction 4 |
| OT 204 | Theory and Practice Level 1A - Physical Dysfunction 3 |
| OT 208 | Physical Modalities and Work Hardening 3 |
| PSYCH 201 | General Psychology 4 |
| | 18 |
| Winter Semester | |
| OT 210 | Group Skills 4 |
| OT 212 | Clinical Conditions - Psychosocial Dysfunction 4 |
| OT 214 | Theory and Practice Level 1B- Psychosocial Dysfunction 3 |
| OT 216 | Assistive Technology - Computers 4 |
| MATH 110 | Applications: Utility of Math 3 |
| or | |
| BUS 105 | Business Mathematics 3 |
| | 18 |
| Spring Session & Fall Semester (8 weeks) | |
| OT 220 | Clinical Experience Level 2A 4 |
| OT 225 | Clinical Experience Level 2B 4 |
| | 8 |

PROGRAM TOTAL 75 CREDITS

The above program meets all General Education requirements.

The Occupational Therapy Assistant Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA). Graduates of the program will be able to sit for the national certification examination for the Occupational Therapy Assistant administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be a Certified Occupational Therapy Assistant (COTA). Most states require licensure in order to practice; however, state licenses are usually based on the results of (NBCOT) Certification Examination. For more information please contact:

American Occupational Therapy Association (ACOTE)
4720 Montgomery Lane
P.O. Box 31220
Bethesda, MD 20824-1220
(301) 652-2682

NOTE: AOTA students are required to complete Level 2 fieldwork within 18 months following completion of academic preparation.

Michigan has a registration law. The Michigan Consumer and Industry Department should be contacted for further information.





OFFICE INFORMATION SYSTEMS

OFFICE ADMINISTRATION (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00133)

The Office Professional, as a member of the office information systems management team, plays an integral role in the successful operation of the organization. In today's information age, the OIS professional functions as the pivotal person in the office communications network.

The Office Administration curriculum is designed to offer courses that enhance students' technical skills, communications skills, and leadership/management skills with an emphasis on the professional work ethic.

The Associate in Applied Science Degree is awarded upon successful completion of this curriculum and all General Education requirements.

FIRST YEAR Fall Semester

| | | |
|-----------|-------------------------------------|-------|
| OIS 100 | Keyboarding 1 | 2 |
| OIS 102 | Keyboarding 2 | 2 |
| OIS 195 | Time and Project Management | 1 |
| ENG 101 | English Composition | 3 |
| POLS 105 | Survey of American Government | 3 |
| PSYCH 153 | Human Relations | 3 |
| or | | |
| PSYCH 201 | General Psychology | 4 |
| | | 14-15 |

Winter Semester

| | | |
|---------|---|----|
| OIS 105 | Office Communications and Editing Skills | 3 |
| OIS 165 | Microsoft Word for Windows | 3 |
| CIS 120 | Software Applications for the Microcomputer | 3 |
| ENG 106 | Business English | 3 |
| SCI | Goal #6 Course | 3 |
| | | 15 |

SECOND YEAR Fall Semester

| | | |
|----------|---|----|
| OIS 265 | Advanced Microsoft Word for Windows | 3 |
| OIS 255 | Office Procedures | 2 |
| ACCT 201 | Principles of Accounting | 4 |
| COMA 103 | Fundamentals of Speech | 3 |
| CIS 170 | Microsoft Windows | 3 |
| HUM 106 | Introduction to Art and Music | 1 |
| | | 16 |

Winter Semester

| | | |
|----------|--|----|
| OIS 185 | Business Presentation 1 - Fundamental Concepts | 3 |
| OIS 260 | Office Administration | 3 |
| ACCT 202 | Principles of Accounting | 4 |
| BUS 207 | Business Law | 3 |
| CIS 180 | Spreadsheet Applications | 3 |
| | | 16 |

PROGRAM TOTAL 61-62 CREDITS

The above program meets all General Education requirements.



PIANO TEACHER

PIANO TEACHER CERTIFICATE

(Schoolcraft program code # 1YC.00115)

The Piano Teacher Certificate program is designed for pianists with sufficient background to pursue professional careers as private piano teachers. The curriculum is structured to provide instruction in piano teaching materials and techniques as well as music theory and history. In addition, students are given numerous opportunities to observe and teach children enrolled in group piano classes on campus. (Two supervised teaching sessions of children are required.)

In order to enter the Piano Teacher Certificate program, each applicant must audition to demonstrate an appropriate level of musicianship. Upon completion of the required curriculum, and upon recommendation of the music faculty, students are awarded Certificates of Program Completion. Applied Music has an added fee.

CURRICULUM REQUIREMENTS

Recommended as a two-year, part-time program. Listed below is the suggested sequence.

FIRST YEAR

Fall Semester

| | | |
|-----------|-----------------------------|---|
| MUSIC 131 | Applied Music - Piano | 2 |
| MUSIC 164 | Music History 1 | 3 |
| MUSIC 153 | Music Theory | 3 |
| | | 8 |

Winter Semester

| | | |
|-----------|-----------------------------|---|
| MUSIC 132 | Applied Music - Piano | 2 |
| MUSIC 165 | Music History 2 | 3 |
| MUSIC 154 | Music Theory | 3 |
| | | 8 |

SECOND YEAR

Fall Semester

| | | |
|-----------|---|---|
| MUSIC 231 | Applied Music - Piano | 2 |
| MUSIC 128 | Sight Singing and Ear Training 1 | 1 |
| MUSIC 247 | Piano Teaching Techniques and Materials 1 | 3 |
| | | 6 |

Winter Semester

| | | |
|-----------|---|---|
| MUSIC 232 | Applied Music - Piano | 2 |
| MUSIC 129 | Sight Singing and Ear Training 2 | 1 |
| MUSIC 257 | Piano Teaching Techniques and Materials 2 | 3 |
| | | 6 |

PROGRAM TOTAL 28 CREDITS

RELATED TRADES INSTRUCTION

RELATED TRADES INSTRUCTION (R.I.) PROGRAMS

Director: Bruce W. Sweet, MA
 Coordinator: Professor Gerald F. Cavanaugh, MA
 Instructors: Adjunct Faculty

Refer to the special bulletin, Related Trades Instruction Catalog, for a complete listing of the following programs and all the individual courses that comprise the programs. Classes are offered fall and winter semester for 16 weeks and 11 weeks in spring.

| SCHOOLCRAFT COLLEGE PROGRAMS | CODE # |
|--|----------|
| Bakery Maintenance Mechanic | RI.00084 |
| Dairy Plant Maintenance/Mechanic | RI.00209 |
| Die Maker | RI.00077 |
| Die Tryout/Punch Finisher | RI.00199 |
| Drafting Design | RI.00195 |
| Forging | RI.00174 |
| Industrial Electrician | RI.00098 |
| Industrial Systems Maintenance | RI.00208 |
| Machine Builder/Repair | RI.00091 |
| Machine Repair/Machinist | RI.00191 |
| Machinist All Around | RI.00094 |
| Metal Model Maker | RI.00187 |
| Quality Systems | RI.00205 |
| Sheet Metal Worker | RI.00090 |
| Tool and Die Maker | RI.00076 |
| Tool Maker/Gages | RI.00186 |
| Tool Maker/Machinist | RI.00194 |
| Welder/Fabricator | RI.00190 |
| Wood Model Maker/Patternmaker | RI.00188 |

COURSES ARE ALSO AVAILABLE FOR:

Management Personnel
 Supervisors
 Journeyperson (Card or Certificate)
 Pre-Apprentices (Basic Skills)
 Trades Persons (Without Certificate)
 Trainees and Up-Graders

EMPLOYEES-IN-TRAINING

(RI.00096 PROGRAM CODE SERIES)

Electrical
 Inspector, Standard Tools
 Instrument Repair, Electrical
 Instrument Repair, Mechanical
 Machine Operator
 Machine Repair
 Painter-Glazier
 Pipe Fitter
 Pyrometer
 Welder-Fabricator



SMALL BUSINESS MANAGEMENT

SMALL BUSINESS MANAGEMENT (ASSOCIATE DEGREE)

(Schoolcraft program code # AAS.00011)

The Small Business Management Curriculum offers a well-balanced program of liberal arts courses, general business subjects, electives and the necessary training to meet the challenge of today's highly competitive business world. The Small Business Management curriculum is designed for those who already own and operate a small business, who are contemplating starting their own small business, or seek employment opportunities as managers in small business.

Students who satisfactorily complete the Small Business Management curriculum and all General Education requirements qualify for an Associate in Applied Science Degree.

| FIRST YEAR | |
|-----------------------------|---|
| Fall Semester | |
| BUS 101 | Introduction to Business 3 |
| BUS 103 | Organizing a Small Business 3 |
| BUS 105 | Business Math 3 |
| CIS 120 | Software Applications for the Microcomputer 3 |
| ENG 101* | (Minimum Requirement) 3 |
| | 15 |
| Winter Semester | |
| BUS 104 | Operating a Small Business 3 |
| BUS 120 | Principles of Salesmanship 3 |
| ACCT 103 | Introduction to Accounting 4 |
| or | |
| ACCT 201 | Principles of Accounting 4 |
| ENG 106 | Business English 3 |
| POLS 105 | Survey of American Government 3 |
| | 16 |
| SECOND YEAR | |
| Fall Semester | |
| BUS 204 | Personal Finance 3 |
| BUS 217 | Business Management 3 |
| BUS 220 | Supervision 3 |
| COMA 103 | Fundamentals of Speech 3 |
| HUM | Goal #8 Course 1-3 |
| | 13-15 |
| Winter Semester | |
| BUS 207 | Business Law 3 |
| BUS 226 | Principles of Marketing 3 |
| BUS 230 | Human Resources Management 3 |
| PSYCH 153 | Human Relations 3 |
| or | |
| PSYCH 201 | General Psychology 4 |
| ELECTIVE** | 3 |
| | 15-16 |
| PROGRAM TOTAL 61-65 CREDITS | |

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

** Suggested Electives: BUS 122, 161, 162, 205, 208, CIS 215, ENG 116.

The above program meets all General Education requirements.

THEATRE

THEATRE TRANSFER PROGRAM (ASSOCIATE DEGREE)

(Schoolcraft program code #AAS.00042)

The Theatre program is designed to provide students with a balanced curriculum of theatre and liberal arts courses that will prepare them to transfer. This program includes performance and the technical aspects of theatre, including theory and practical experiences in theatre.

Upon completion of the program, the students qualify for an Associate of Arts Degree in Theatre.

| FIRST YEAR | |
|--------------------------|--|
| Fall Semester | |
| ENG 101 | English Composition 3 |
| BIOL 101 | General Biology 4 |
| THEA 120 | Theatre Activities 1 |
| THEA 208 | Acting 1 3 |
| THEA 101 | Introduction to Theatre 3 |
| CIS 105 | Computer Orientation 1 |
| | 15 |
| Winter Semester | |
| ENG 102 | English Composition 3 |
| THEA 121 | Theatre Activities 1 |
| THEA 209 | Acting 2 3 |
| THEA 207 | Stagecraft and Lighting 3 |
| MATH 112 | Intermediate Algebra 5 |
| | 15 |
| SECOND YEAR | |
| Fall Semester | |
| THEA 220 | Theatre Activities 1 |
| THEA 204 | Stage Makeup 2 |
| COMA 103 | Fundamentals of Speech 3 |
| ENG 245 | Introduction to Literature - Drama 3 |
| or | |
| ENG 248 | Introduction to Literature - Shakespeare 3 |
| POLS 105 | Survey of American Government 3 |
| THEA 251 | History of Theatre 3 |
| | 15 |
| Winter Semester | |
| THEA 221 | Theatre Activities 1 |
| THEA 241 | Oral Interpretation of Literature 3 |
| ENG 245 | Introduction to Literature - Drama 3 |
| or | |
| ENG 248 | Introduction to Literature - Shakespeare 3 |
| PSYCH 201 | General Psychology 4 |
| HIST 137 | Early Modern World 4 |
| | 15 |
| PROGRAM TOTAL 60 CREDITS | |

The above program meets all General Education requirements.

WELDING TECHNOLOGY

WELDING - FABRICATION (ONE - YEAR CERTIFICATE)

(Schoolcraft program code # 1YC.00127)

There is continued need for persons with the skills to fabricate machinery components and other industrial equipment while working under the supervision of a welding journeyperson. The welding - fabrication program prepares students for employment under classifications such as welders and/or industrial fabricators. The program includes joining materials, using weldments, special techniques, equipment and other recognized fastening methods. Students acquire skills in the broad categories of welding and fabrication with added emphasis upon support technical subjects.

Students are required to purchase protective clothing, protective (safety) shoes and eye protection equipment.

Students who satisfactorily complete the Welding-Fabrication certificate curriculum qualify for a Certificate of Program completion.

ONE-YEAR PROGRAM

Fall Semester

| | | |
|----------|--|---|
| WELD 113 | Shielded Metallic Arc Welding (S.M.A.W.) | 3 |
| RI 500 | Characteristics of Metals | 2 |
| RI 400 | Machine Trades Print Reading | 2 |
| RI 110 | Shop Math | 2 |

or

| | | |
|----------|--|----|
| RI 120 | Algebra | 2 |
| WELD 115 | Gas Metallic Arc Welding (G.M.A.W./M.I.G.) | 3 |
| | | 12 |

Winter Semester

| | | |
|----------|---|---|
| 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 |
| RI 120 | Algebra | 2 |

or

| | | |
|----------|-------|---|
| ELECTIVE | | 2 |
|----------|-------|---|

*WELD 210 to 214 (Select one)

| | |
|-------------------------------|----|
| Exam Preparation (Each) | 3 |
| | 14 |

Spring Session

| | | |
|----------|-------------------------------------|---|
| WELD 223 | Fabrication - Student Project | 4 |
|----------|-------------------------------------|---|

PROGRAM TOTAL 30 CREDITS

*Select From:

| | | |
|----------|--------------------|-----------|
| WELD 210 | S.M.A.W. | 3 Credits |
| WELD 211 | G.M.A.W. | 3 Credits |
| WELD 212 | G.T.A.W. | 3 Credits |
| WELD 213 | S.A.W. | 3 Credits |
| WELD 214 | Pipe Welding | 3 Credits |

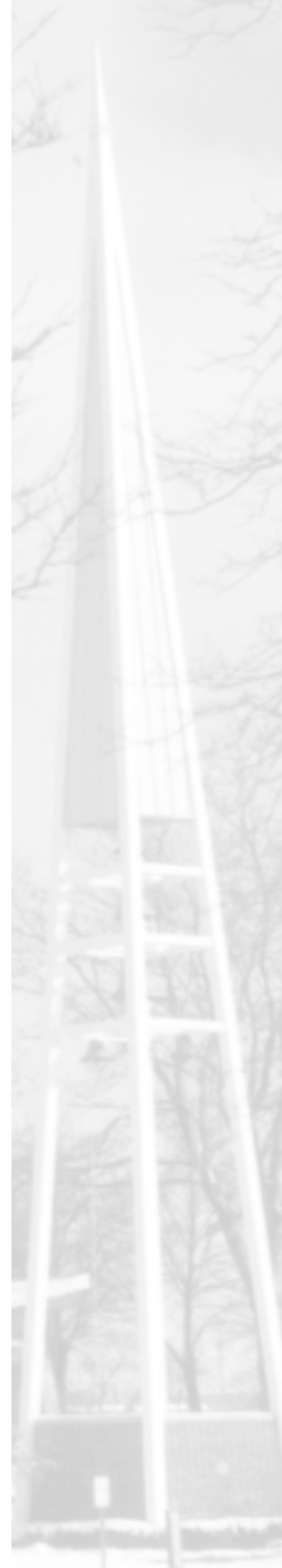
Exams for above certificate will also be provided on an individual basis.





Schoolcraft College

Course Descriptions



COURSE DESCRIPTIONS

KEY TO READING COURSE DESCRIPTIONS

SAMPLE COURSE LISTING:

| Department | Course Number | Course Name | Lecture Hours/Week | Lab Hours/Week | Credit Hours |
|--|---------------|---------------------------|--------------------|----------------|--------------|
| CHEM | 111 | General Chemistry (4 - 3) | 4 Cr. Hrs. | | |
| First course in general chemistry. Includes laws of chemical combination, states of matter, atomic and molecular structure, bonding, physical and chemical properties of matter. | | | | | |
| Prerequisite: CHEM 051 or equivalent (with a grade of 2.0 or better) and MATH 112 or equivalent (may be taken concurrently). | | | | | |
| Course required before taking this class | | | | | |

Courses are numbered as follows:

1. Courses numbered from 001 to 099 are considered pre-college, may not be transferrable, and do not apply toward an Associate Degree.
2. Courses numbered from 100 to 199 are primarily freshman-level courses.
3. Courses numbered 200 to 299 are primarily sophomore-level courses.
4. Final exams are required in all credit courses.
5. Many courses are sequenced so that it is necessary to master the material in a lower level course before attempting more complex material. Follow prerequisites to ensure success.

COURSE INDEX

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| | |
|---|-----|
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ACCOUNTING

Associate Dean: Fernon P. Feenstra, EdS
 Instructors: Professor Sharon Cotton, MBEd
 Professor LaVonda Ramey, MBA, CPA
 Adjunct Faculty

- ACCT 103 Introduction to Accounting (4 - 0) 4 Cr. Hrs.
 Beginning accounting course with emphasis on accounting cycle for a sole proprietorship, journals, ledgers and basic financial statements. Accounting for cash, payroll, taxes and plant assets. Intended for students who want some accounting instruction prior to the Principles course and those not majoring in business or economics.
 Prerequisite: None.
- ACCT 201 Principles of Accounting (4 - 0) 4 Cr. Hrs.
 Principles of accounting with emphasis on accounting and the accounting cycle for a sole proprietorship, journals, ledgers, Income Statement, Statement of Owner's Equity, and Balance Sheet. Accounting for cash control, accounts receivable, bad debts, promissory notes, inventories, plant and intangible assets and payroll. The completion of a handwritten practice set is required.
 Prerequisite: None.
- ACCT 202 Principles of Accounting (4 - 0) 4 Cr. Hrs.
 Continuation of ACCT 201 with emphasis on corporations and an introduction to partnership accounting. Accounting for liabilities, investments, statement analysis, management planning and an introduction to cost accounting.
 Prerequisite: ACCT 201.
- ACCT 221 Intermediate Accounting (4 - 0) 4 Cr. Hrs.
 Expansion of accounting principles with emphasis on assets. Accounting for valuing current assets and current liabilities and plant assets.
 Prerequisite: ACCT 202. ACCT 260 recommended.
- ACCT 222 Intermediate Accounting (4 - 0) 4 Cr. Hrs.
 Continuation of ACCT 221 with emphasis on equity accounting. Accounting for current liabilities, long-term liabilities, leases, pensions, income taxes, statement of cash flows, financial statement analysis accounting changes and errors and other appropriate current topics.
 Prerequisite: ACCT 202. ACCT 260 recommended.
- ACCT 226 Cost Accounting (4 - 0) 4 Cr. Hrs.
 Concepts of cost accounting as a management tool for control and planning. Actual and standard cost methods as applied to job and process cost systems; accounting for materials, labor, and manufacturing overhead; direct costing method; and cost accounting projects. Fall only.
 Prerequisite: ACCT 202 and CIS 180.
- ACCT 238 Federal Tax Accounting (4 - 0) 4 Cr. Hrs.
 Federal income tax laws with special emphasis on those regulations that relate to individuals and small business. Includes preparation of tax forms. Winter only.
 Prerequisite: None. ACCT 201 recommended.
- ACCT 260 Computer Based Accounting (3 - 0) 3 Cr. Hrs.
 The student will complete comprehensive accounting problems using two commercial packages. These packages shall include General Ledger, Accounts Receivable, Accounts Payable and Payroll. Student shall be responsible for modifying layout, making schedules and generating financial statements. The student will also complete a comprehensive payroll problem using a current computer package and be able to file appropriate payroll reports. The course could accommodate other accounting packages at discretion of the student and instructor. Outside lab time is required.
 Prerequisite: ACCT 202 and CIS 120.

ALLIED HEALTH EDUCATION

Associate Dean: Midge Carleton, MS
 Associate Dean: Robert F. Pearce, MPA
 Instructors: Adjunct Faculty

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



ANTHROPOLOGY

Associate Dean: Midge Carleton, MS
Instructors: Assistant Professor Josselyn Moore, MA
Adjunct Faculty

- ANTH 112 Introduction to Anthropology (3 - 0) 3 Cr. Hrs.
An introduction to the origin and diversity of humans. Topics include evolution of humans and their cultures, contemporary cultural diversity, linguistics, and applied anthropology. Focuses on biological and cultural adaptation.
Prerequisite: None.
- ANTH 201 Cultural Anthropology (3 - 0) 3 Cr. Hrs.
Comparison of ways of life for societies worldwide using anthropological theory and methods. Basic institutions of human society, such as kinship, religion, law, politics, and economics are examined to provide a better understanding of the diversity of contemporary societies. Focuses on non-Western societies.
Prerequisite: None.
- ANTH 211 Myth, Magic and World Religions (3 - 0) 3 Cr. Hrs.
This course will survey past and present religious beliefs from around the world including tribal religions, Hinduism, Buddhism, Judaism, Christianity and Islam. The importance of religious values will be examined from an anthropological perspective providing an understanding of the role of contemporary religious beliefs in the rapidly changing world.
Prerequisite: ANTH 112 or 201 recommended.
- ANTH 214 Native American Traditions (3 - 0) 3 Cr. Hrs.
This course provides a survey of Native American cultures from both Native and non-Native perspectives. Social, economic, religious and artistic traditions will be examined. Course content includes a review of prehistoric origins as well as an evaluation of the effects of centuries of contact with people from Europe, Africa and Asia.
Prerequisite: ANTH 112 or 201 recommended.

ARCHAEOLOGY

Associate Dean: Midge Carleton, MS
Instructors: Assistant Professor Josselyn Moore, MA
Adjunct Faculty

- ARCOL 117 Introduction to Archaeology (3 - 0) 3 Cr. Hrs.
A general survey of Archaeology. Includes an overview of the history of the field, and the basic theories and methods employed in the study of prehistoric cultures. Prehistoric cultures are used as examples.
Prerequisite: None.

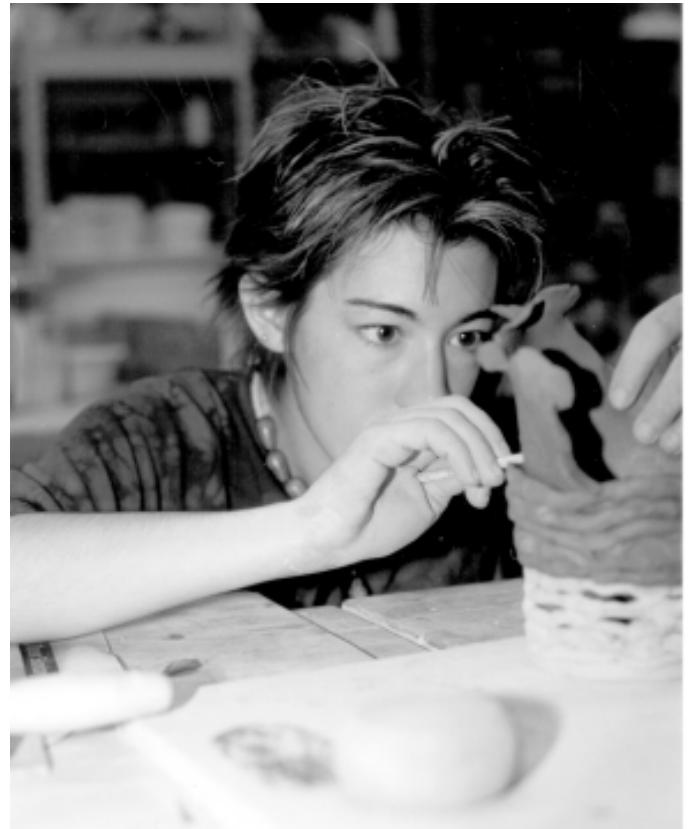
ART AND DESIGN

Associate Dean: Jeanne Bonner, MSA
Instructors: Adjunct Faculty

- ART 105 Basic Drawing 1 (3 - 0) 3 Cr. Hrs.
Investigation of basic drawing materials; training in observation of and selection of significant elements. Emphasis is on the concept and its relationship to technique and materials. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate lab.
Prerequisite: ART 104 concurrently recommended.
- ART 106 Basic Design 1 (3 - 0) 3 Cr. Hrs.
Introduction to the basic principles of design. Application of design principles of two and three-dimensional projects in various media. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
Prerequisite: ART 105 concurrently recommended.
- ART 113 Art Education (3 - 0) 3 Cr. Hrs.
A study of child growth and development through creativity. Students study techniques and materials appropriate for use at various elementary grade levels. Emphasis on methods to stimulate children's creative interests. Students are required to make arrangements for observation of elementary classes during the latter part of the semester.
Prerequisite: PSYCH 201 recommended.
- ART 115 Art History (4 - 0) 4 Cr. Hrs.
Development of Western Art from prehistoric times to the Renaissance, with emphasis on architecture and sculpture.
Prerequisite: None.
- ART 116 Art History (4 - 0) 4 Cr. Hrs.
A study of the development of Western Art from the Renaissance to the present.
Prerequisite: ART 115 recommended.
- ART 118 Ceramics 1 (3 - 0) 3 Cr. Hrs.
Fundamentals of ceramics; study of materials and basic techniques in shaping, decorating and firing. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
Prerequisite: ART 105 or equivalent.



- ART 119 Ceramics 2 (3 - 0) 3 Cr. Hrs.
Continuation of ART 118. Emphasis on good ceramic form; work with various types of ceramic materials; advanced techniques in shaping, decorating, and firing. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
Prerequisite: ART 118.
- ART 125 Basic Drawing 2 (Figure Drawing) (3 - 0) 3 Cr. Hrs.
Continuation of ART 105. Further investigation of drawing as recording of information. Emphasis is placed on the art of observation (looking and seeing), and the recording of the human figure in relationship to its setting, environment, materials and techniques. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate lab.
Prerequisite: ART 105 or consent of instructor.
- ART 126 Basic Design 2 (3 - 0) 3 Cr. Hrs.
Continuation of Art 106. Further application of design principles in two and three dimensional projects in various media. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
Prerequisite: ART 106. ART 125 concurrently recommended.
- ART 160 Principles of Graphic Communication (3 - 0) 3 Cr. Hrs.
Introduction to the basics of effective graphic communication. Students will be introduced to the concepts, technology and history of the print media and the use of art and design as a form of nonverbal communication.
Prerequisite: None.
- ART 201 Art Appreciation (3 - 0) 3 Cr. Hrs.
An appreciation course dealing with the basic elements underlying all art forms and with the understanding of the aesthetic and technical problems that are involved.
Prerequisite: None.
- ART 211 Water Color Painting (3 - 0) 3 Cr. Hrs.
Introduction to color composition as it relates to still life and landscape painting. Practice in the use of dry-brush and wet-wash techniques. Project completion and exhibition of works at semester end. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate lab.
Prerequisite: ART 105, ART 106 or consent of instructor.
- ART 218 Ceramics 3 (3 - 0) 3 Cr. Hrs.
An intermediate investigation of the artmaking process using techniques specific to ceramics. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
Prerequisite: ART 119.
- ART 219 Ceramics 4 (3 - 0) 3 Cr. Hrs.
An intermediate investigation of the artmaking process using techniques specific to ceramics. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
Prerequisite: ART 218.
- ART 236 Painting 1 (3 - 0) 3 Cr. Hrs.
Introduction to painting and exploration of the painting media, techniques, and processes. Studio experiences in developing representational and conceptual visual imagery. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
Prerequisite: Six credit hours studio work or consent of instructor.
- ART 239 Painting 2 (3 - 0) 3 Cr. Hrs.
Continuation of ART 236. Further investigation of the painting media, techniques, and processes. Studio experiences with emphasis on individual experimentation and visual imagery. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
Prerequisite: ART 236 plus six credit hours studio work or consent of instructor.
- ART 243 Sculpture 1 (3 - 0) 3 Cr. Hrs.
Development of skills through exploratory experiences in sculptural media and techniques leading to the understanding of sculptural form and conception. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
Prerequisite: Six credit hours studio work or consent of instructor.
- ART 244 Sculpture 2 (3 - 0) 3 Cr. Hrs.
Continuation of Art 243. Further exploration and application of sculptural media and techniques leading to the understanding of sculptural form and conception. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
Prerequisite: ART 243.



BIOLOGY

Associate Dean: Midge Carleton, MS
 Instructors: Professor Roger Anderson, MS
 Professor Carolyn Steffen, PhD
 Associate Professor Mohammed Abbas, PhD
 Associate Professor Thomas O'Connor, PhD
 Associate Professor Michael Orick, MA
 Assistant Professor Nickolas Butkevich, MS
 Adjunct Faculty

BIOLOGY INTRODUCTION

The Biology Department offers 14 biology courses and one conservation course (see Conservation page). The department offers:

- A preparatory class (BIOL 050) for those lacking necessary background for other courses offered.
- Courses to fulfill transfer requirements for students planning to attend a senior college.
- Courses leading directly to job placement with or without completion of a degree program (particularly in Health Careers).
- Courses that provide for special interests of students, but not necessarily required in any curriculum.

Students following specific transfer curricula should be aware that they are not limited to only courses specifically listed in the transfer requirements, but have some freedom of electives and can therefore pursue special interests they may have in biology.

Schoolcraft biology courses, with the exception of BIOL 050, are generally transferable. Specific information on transfer credit is available from counseling.

- BIOL 050 Basic Biology (4 - 0) 4 Cr. Hrs.
 Class is offered to students lacking prior training necessary for college level courses in biology. Emphasis is placed on selected topics such as terminology and concepts of the physical sciences that contribute to the understanding of modern biological principles. Cell structure and metabolic activities are featured as well as the basic skills needed to successfully pursue college biology courses.
 Prerequisite: None.
- BIOL 101 General Biology (4 - 3) 4 Cr. Hrs.
 Study of basic life processes as they occur in cells and in plants and animals. Students attend four hours of lecture and three hours of scheduled lab each week.
 Prerequisite: Introductory high school biology within the last five years or BIOL 050.
- BIOL 102 General Biology (4 - 3) 4 Cr. Hrs.
 Continuation of BIOL 101. To develop an understanding in-depth, by means of lecture, discussion and laboratory methods, the areas of genetics, reproduction and development, evolution, ecology, and other areas as selected by the instructor.
 Prerequisite: BIOL 101.
- BIOL 103 Health Education (3 - 0) 3 Cr. Hrs.
 Study of current health problems related to selected human organ systems, diet, population, environment, fitness, cancer, disease, sexuality and substance abuse.
 Prerequisite: None.

- BIOL 105 Elementary Human Anatomy and Physiology 1 (4 - 0) 4 Cr. Hrs.
 This is a basic lecture-demonstration study of the human body.
 Prerequisite: Introductory high school biology within the last five years or BIOL 050.
- BIOL 115 Nutrition (3 - 0) 3 Cr. Hrs.
 A study of the nature and role of nutrition with emphasis on changing needs in the human life cycle. The relationship between nutrition and health will be explored. Topics such as vegetarianism, food fads and fallacies, obesity, weight control and food additives are studied.
 Prerequisite: None.
- BIOL 211 Zoology (3 - 3) 4 Cr. Hrs.
 Anatomy, physiology, genetics, development, ecology and classification of animals.
 Prerequisite: BIOL 101.
- BIOL 212 Botany (3 - 3) 4 Cr. Hrs.
 Anatomy, physiology, genetics, development, ecology and classification of plants.
 Prerequisite: BIOL 101.
- BIOL 235 Anatomy and Physiology (3 - 4) 4 Cr. Hrs.
 A lecture and laboratory study of the structure and function of all systems of the human body.
 Prerequisite: BIOL 101.
- BIOL 237 Principles of Human Anatomy and Physiology 1 (3 - 2) 4 Cr. Hrs. First semester of a two semester sequence. Anatomy and physiology of the human integumentary skeletal, muscular, nervous, and endocrine systems. Functional and structural interrelationships will be stressed.
 Prerequisite: BIOL 101.
- BIOL 238 Principles of Human Anatomy and Physiology 2 (3 - 2) 4 Cr. Hrs.
 Continuation of BIOL 237. Anatomy and physiology of the circulatory, respiratory, digestive, urinary, and reproductive systems.
 Prerequisite: BIOL 237.
- BIOL 240 Review of Anatomy and Physiology (2 - 0) 2 Cr. Hrs.
 This course is a review of the anatomy and physiology of the human body with special emphasis on the physiology of the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. This course is designed for students entering biomedical programs that require a review of the basic anatomy and physiology of the human body.
 Prerequisite: BIOL 237 and BIOL 238, or BIOL 235 or equivalent. BIOL 105 with consent of instructor.
- BIOL 243 Microbiology (3 - 4) 4 Cr. Hrs.
 Fundamentals of microbiology, including growth, nutrition, metabolism, control, genetics, and classification. Applications to: Water, sewage, foods, air, milk, soil, medicine, and industry.
 Prerequisite: BIOL 101.

BIOMEDICAL ENGINEERING TECHNOLOGIST

Associate Dean: Fernon P. Feenstra, EdS
Instructors: Adjunct Faculty

- BMET 115** Biomedical Instrumentation Terminology and Safety (2 - 1) 2 Cr. Hrs.
Students will acquire a knowledge of the language common to electronics and the medical profession based on spelling, pronunciation and definition of words and terms related to anatomy, physiology, electronics, medicine, statistical analysis, medical equipment, electronic test equipment and safety. They will become acquainted with the fundamentals of medical equipment systems concepts and will become proficient in the application of cardiopulmonary resuscitation.
Prerequisite: ELECT 127.
- BMET 203** Transducers (4 - 2) 5 Cr. Hrs.
This course is intended to provide students with a knowledge of mechanics, materials, magnetics, heat, sound, light, and nuclear physics with the sole intent of understanding transducers and other interfaces with electronic equipment used in the medical field.
Prerequisite: ELECT 129.
- BMET 254** Biomedical Equipment Internship 1 (0 - 20/40) 3 Cr. Hrs.
This is the first cooperative assignment for a Biomedical Equipment Technology student who has completed the prerequisite required for this course. Employment will be approximately 40 hours per week off campus in a technical capacity with a hospital. A joint college and employer evaluation will serve as the basis for a grade. (Usually 16 weeks)
Prerequisite: BMET 115, and ELECT 129. Approval of the BMET Coordinator and a 2.0 G.P.A. A student on a BMET internship is considered a full-time student at Schoolcraft College, with all the rights and privileges of a full-time student.
- BMET 255** Biomedical Equipment Internship 2 (0 - 20/40) 3 Cr. Hrs.
This is the second cooperative assignment for a Biomedical student who has completed one semester of internship. Conditions for assignment and evaluation are the same as for Biomedical Equipment 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.
Prerequisite: BMET 254. Approval of the BMET Coordinator and a minimum 2.0 G.P.A. A student on a BMET internship is considered a full-time student at Schoolcraft College, with all the rights and privileges of a full-time student.

BUSINESS

Associate Dean: Fernon P. Feenstra, EdS
Instructors: Professor Donald Ryktarsyk, MA
Adjunct Faculty

- BUS 101** Introduction to Business (3 - 0) 3 Cr. Hrs.
Principles, problems and practices of business in the areas of organization, management, computer information systems, labor, production, personnel, marketing, finance, insurance, regulation, and government.
Prerequisite: None.
- BUS 103** Organizing a Small Business (3 - 0) 3 Cr. Hrs.
This course emphasizes the organization for those who are operating, starting, or seeking employment in small business. The major topics include: Starting a small business, franchising, location, organizing, financing, and regulation of a small business.
Prerequisite: None.
- BUS 104** Operating a Small Business (3 - 0) 3 Cr. Hrs.
This course emphasizes operating a small business for those who are either operating, starting, or seeking employment in a small business. The major topics include: Policies, insurance, employee relations, inventory control, pricing, and advertising.
Prerequisite: None.
- BUS 105** Business Mathematics (3 - 0) 3 Cr. Hrs.
Review of fundamentals of arithmetic, percentage, simple and compound interest, taxes, insurance, bonds, applications to business practice.
Prerequisite: A minimum grade of 2.0 in MATH 045 or equivalent.
- BUS 120** Principles of Salesmanship (3 - 0) 3 Cr. Hrs.
Fundamentals of retail, wholesale, outside, and service selling; practice in sales preparation and demonstration.
Prerequisite: None.
- BUS 122** Advertising (3 - 0) 3 Cr. Hrs.
Provides the student with a general knowledge of the various facets of advertising, media selection, psychological buying motives, and advertising strategies. Also, the student will gain an appreciation of the various talents needed to bring about a good advertising message.
Prerequisite: None.
- BUS 161** Retail Principles and Practices (3 - 0) 3 Cr. Hrs.
Fundamentals of store organization and operation; identification of problem situations pertaining to retail establishments; specific application for retail procedures.
Prerequisite: None.
- BUS 162** Retail Merchandising (3 - 0) 3 Cr. Hrs.
Merchandising functions, fundamental activities of retail establishments, buying procedures, inventory control, and pricing.
Prerequisite: BUS 105.
- BUS 201** Business Statistics (3 - 0) 3 Cr. Hrs.
Students apply statistical methods to data to gain insight into practical problems. Computer software is used to perform statistical calculations and generate charts and graphs.
Prerequisite: MATH 112.

- BUS 204 Personal Finance (3 - 0) 3 Cr. Hrs.
A practical study of the problems and solutions facing the consumer in today's society. The areas that are covered include budgeting, banking, credit, and income taxes. Also considered are selection of insurances, choice of housing, large item purchasing (such as automobiles) and occupational choices. In addition, the laws and regulations for consumer protection and where to get relief for personal buying problems are discussed.
Prerequisite: None.
- BUS 205 Personal Investing (3 - 0) 3 Cr. Hrs.
Investment goals will be determined. These include the investment alternatives of savings, corporate stocks and bonds, mutual funds, government securities, and other investment opportunities. Also, the student will learn how to analyze and select these investment alternatives for individual portfolios.
Prerequisite: None.
- BUS 207 Business Law (3 - 0) 3 Cr. Hrs.
Principles of law as applied to the legal environment of business, contracts, sales and consumer rights, bankruptcy and secured transactions - debtor/creditor rights.
Prerequisite: None.
- BUS 208 Business Law (3 - 0) 3 Cr. Hrs.
Continuation of BUS 207 with emphasis on wills and estates, real and personal property, agency, partnerships, corporations, and employment.
Prerequisite: None. BUS 207 recommended.
- BUS 217 Business Management (3 - 0) 3 Cr. Hrs.
This course centers discussion on basic functions of the management process. Included in this process are: Decision making, organizing, staffing, planning, controlling, communicating, and directing.
Prerequisite: BUS 101 or consent of department.
- BUS 220 Supervision (3 - 0) 3 Cr. Hrs.
A course geared to better understand the first-line supervisor role as a particularly critical position within an organization. It centers on the development of skills, attitudes and knowledge essential to job performance. The course concentrates on leadership, motivation, communication, and other related topics.
Prerequisite: None.
- BUS 226 Principles of Marketing (3 - 0) 3 Cr. Hrs.
An integrated analytical approach to the marketing process with discussion of essential economic principles as they apply to the marketing process. Course considers the interrelationship of the marketing functions as they contribute to the marketing process.
Prerequisite: BUS 101 or consent of department.
- BUS 230 Human Resource Management (3 - 0) 3 Cr. Hrs.
The course emphasizes the management of the procurement, development, compensation, integration, maintenance, and separation of human resources to accomplish individual, organizational, and social objectives.
Prerequisite: BUS 101 or consent of department.

CHEMISTRY

Associate Dean: Midge Carleton, MS
Instructors: Professor William Nickels, MAT
Assistant Professor Cheryl Snyder, MS
Adjunct Faculty

- CHEM 051 Basic Chemistry (4 - 2) 4 Cr. Hrs.
An elementary course in chemistry for students who have not had high school chemistry or who wish to review basic chemical concepts. The course provides an introduction to chemical measurement, basic definitions and laws, chemical nomenclature and equations, calculations based on chemical equations, atomic theory, the Periodic Table, solutions, acids, bases, gases, and organic chemistry.
Prerequisite: MATH 051 or equivalent.
- CHEM 111 General Chemistry (4 - 3) 4 Cr. Hrs.
This course is designed as a first course in a traditional one-year program in general college chemistry and includes a review of fundamental concepts such as symbols, formulas, chemical equations, laws of chemical combination, and physical and chemical properties. Atomic and molecular structure, bonding, stoichiometry, periodicity, gases, solutions, acids and bases, and electrochemistry and oxidation-reduction are also covered in this course.
Prerequisite: Both CHEM 051 or equivalent with a grade of 2.0, and MATH 112 or equivalent. Math may be concurrent.
- CHEM 117 General Chemistry and Qualitative Analysis (4 - 4) 5 Cr. Hrs.
This course is the second course in a traditional one-year general college chemistry program. It includes the study of kinetics, solution equilibria, solubility equilibria, hydrolysis, coordination compounds, thermodynamics and qualitative analysis. A brief introduction to organic chemistry and nuclear chemistry is also included. Laboratory work correlates with lecture and stresses the identification of common cations and anions by semimicro methods.
Prerequisite: CHEM 111 with a grade of 2.0 or better or consent of department.
- CHEM 125 Organic and Biochemistry (3 - 0) 3 Cr. Hrs.
A survey of organic and biochemistry emphasizing the major metabolic activities of living organisms. This course is recommended for premedical students, but does not usually apply as transfer chemistry credit. CHEM 125 is also intended for nursing and other health-related career curricula.
Prerequisite: CHEM 111.
Corequisite: CHEM 126 (not for Premed).
- CHEM 126 Organic and Biochemistry (0 - 3) 1 Cr. Hr.
Selected laboratory exercises in organic and biochemistry corresponding to lecture topics in CHEM 125.
Prerequisite: CHEM 111.
Corequisite: CHEM 125.
- CHEM 213 Organic Chemistry (4 - 4) 5 Cr. Hrs.
Integrated course stressing basic principles of organic chemistry such as nomenclature, chemical bonding, correlation of physical properties with structure, mechanisms of organic reactions of both the aliphatic and the aromatic series. Laboratory deals largely with synthesis of organic compounds and study of their properties.
Prerequisite: CHEM 117 with a grade of 2.0 or better or consent of department.
- CHEM 214 Organic Chemistry (4 - 4) 5 Cr. Hrs.
Continuation of CHEM 213. Emphasis upon mechanisms of organic reactions and interpretation of spectra. Lab work emphasizes preparation of organic compounds through multistep syntheses.
Prerequisite: CHEM 213.

CHILD CARE

Associate Dean: Midge Carleton, MS
 Instructors: Professor Dorothy Witten, MED
 Assistant Professor Diane Flynn-Hahn, MA
 Adjunct Faculty

- CCD 100 Introduction to Child Welfare Services (3 - 0) 3 Cr. Hrs.
 Students will receive wide exposure to community agencies and resources available to children and youth. There will be focus on identifying needs of children and methods through which those needs are met by the community when parents are unable to do so or need assistance.
 Prerequisite: None.
- CCD 101 Preschool Child Care (3 - 0) 3 Cr. Hrs.
 This course is designed to assist students in understanding the needs of the preschool child and methods by which they are met. There will be focus on phases of development, typical behaviors, and appropriate practices. Observational skills will be sharpened, with concentration on signals alerting students to the children's levels of functioning.
 Prerequisite or Corequisite: CCD 116 or consent of department.
- CCD 105 Introduction to Developmental Disabilities (3 - 0) 3 Cr. Hrs.
 This course is designed to introduce students to the health and developmental problems of persons with mental impairment (MI). Emphasis is placed on gaining knowledge of the various syndromes typical in MI populations and learning to recognize medical symptoms. Attention will also be given to developing an understanding of prescribed drugs and their side effects, infectious diseases and preventive measures against contagion.
 Prerequisite or Corequisite: CCD 216 or consent of department.
- CCD 113 Special Educational Programs and Supported Community Living (3 - 0) 3 Cr. Hrs.
 Students become familiar with considerations of placement and training of persons with developmental disabilities, emotional disabilities, learning disabilities and physical handicaps. Attention will be given to the theory and principles of normalization and appropriate community support. The course will cover the operation and maintenance of group homes. Included will be current laws and regulations regarding licensing, equipping and maintaining the physical plant, staffing, food services, health and social services, budgeting and program development.
 Prerequisite: None.
- CCD 115 School Age Child Care (3 - 0) 3 Cr. Hrs.
 This course is designed to identify the developmental tasks of middle childhood (ages 6-12) and suggest ways caregivers can help foster growth and development. Emphasis will be on understanding the needs of the school age child and methods by which they are met.
 Prerequisite or Corequisite: CCD 116 or consent of department.
- CCD 116 Child Development (3 - 0) 3 Cr. Hrs.
 This course is designed to provide students an overview of life from its beginning through adolescence. The course will concentrate on physical, cognitive, social and emotional development in the prenatal, infancy, toddler, preschool, middle childhood and adolescent periods.
 Prerequisite: None.
- CCD 118 Infant and Toddler Care (3 - 0) 3 Cr. Hrs.
 This course is designed to prepare students to provide care for infants and toddlers. Students will learn the essential ingredients in infant and toddler care and will learn to match caregiving strategies to very young children as they develop. A holistic emphasis focuses on the development of a curriculum which provides for the physical, emotional, social, and cognitive development of infants and toddlers.
 Prerequisite or Corequisite: CCD 116 or consent of department.
- CCD 121 The Adolescent (3 - 0) 3 Cr. Hrs.
 In this course the student will explore major theories in adolescent development and use the theoretical constructs to understand adolescent behavior. Students will recognize the contributing factors which lead to the development of a stable identity hierarchy and the development of responsibility in adolescence.
 Prerequisite or Corequisite: CCD 116 or consent of department.
- CCD 126 Creative Activities (3 - 0) 3 Cr. Hrs.
 The purpose of this course is to introduce the students to the stages of creativity and to art materials and techniques. Activities appropriate for preschool children and children and adults with developmental or emotional disabilities will be covered.
 Prerequisite: None.
- CCD 130 Learning Disabilities (3 - 0) 3 Cr. Hrs.
 This course is designed to acquaint students with the perceptual and learning handicaps of children with learning disabilities. Students will learn about special education programs in public schools. The diagnosis of disorders of visual and auditory perception, language, motor coordination, equilibrium and laterality related to the learning processes are discussed as well as specific recommendations for remediation and implications for school planning.
 Prerequisite or Corequisite: CCD 216 or consent of department.
- CCD 140 Emotional Impairment (3 - 0) 3 Cr. Hrs.
 The purpose of this course is to acquaint students with concepts and materials related to the education of children with emotional disabilities. The major theories related to causes and treatment of emotional and behavior problems will be covered.
 Prerequisite or Corequisite: CCD 216 or consent of department.
- CCD 150 Child Care Practicum 1 (1 - 12) 3 Cr. Hrs.
 Students will have supervised experience working directly with children and youth in settings such as day care centers and group homes. They will have the opportunity to integrate classroom material and personal life experiences with on-the-job child care experience and evaluate the experiences of children in light of the concepts they have learned. Emphasis on observing and reporting activities of the children.
 Prerequisite or Corequisite: CCD 116 or consent of department.

- CCD 151 Practicum Module 1 (1 - 10) 1 Cr. Hr.
This course is designed to provide the student 50 hours of experience working with children in a supervised setting. The emphasis is on understanding and demonstrating cooperative, dependable work habits as well as developmentally appropriate interactions with children. Learning and practicing techniques for observing children is integrated throughout the supervised experience. Practicum Module 1 is one of three practicum modules that complete Child Care Practicum 1.
Prerequisite: CCD 116.
- CCD 152 Practicum Module 2 (1- 10) 1 Cr. Hr.
This course is designed to provide the student 50 hours of experience working with children in a supervised setting. The emphasis is on understanding and demonstrating cooperative, dependable work habits as well as developmentally appropriate interactions with children. Learning and practicing techniques for observing children is integrated throughout the supervised experience. Observations will cover health and safety issues, and children's development of self concept, motor coordination, intellectual and communication skills. Practicum Module 2 is one of three practicum modules that complete Child Care Practicum 1.
Prerequisite: CCD 116.
- CCD 153 Practicum Module 3 (1- 10) 1 Cr. Hr.
This course is designed to provide the student 50 hours of experience working with children in a supervised setting. The emphasis is on understanding and demonstrating cooperative, dependable work habits as well as developmentally appropriate interactions with children. Learning and practicing techniques for observing children is integrated throughout the supervised experience. Observations will cover emotional developmental and social skills, creativity, and guidance techniques in child care centers. Administration and evaluation of child care centers is also examined. Practicum Module 3 is one of three practicum modules that complete Child Care Practicum 1.
Prerequisite: CCD 116.
- CCD 155 CDA Assessment Preparation (1 - 0) 1 Cr. Hr.
To be awarded the CDA credential, a Candidate must present evidence to The Council for Early Childhood Professional Recognition of his/her competence as a child care provider/educator. This course is designed to support the CDA Candidate in preparation for the final assessment process.
Prerequisite: CCD 116, CCD 100, CCD 101, CCD 118, CCD 126, CCD 150, CCD 170, CCD 214 or consent of department.
- CCD 170 Behavior Management (3 - 0) 3 Cr. Hrs.
This course is designed to familiarize students with the behavior management options available for use with children and adults. A survey of behavior shaping techniques will be made including a study of the classical behavior modification model and an introduction to data collection.
Prerequisite: None.
- CCD 200 Child Care Practicum 2 (1 - 12) 3 Cr. Hrs.
Continued supervised experience working directly with children and youth in child care settings. Students will have increased responsibility as child care workers. Emphasis on working as a contributing member of the child care team.
Prerequisite: CCD 150 or consent of department.
Prerequisite or Corequisite: CCD 101 or CCD 215 or consent of department.



- CCD 211 Children and Youth in Groups (3 - 0) 3 Cr. Hrs.
This course is designed to introduce students to the principles of group functioning and techniques of helping children become accepted members of peer groups. Membership of child care workers in professional groups will also be covered.
Prerequisite: None.
- CCD 214 Operation and Maintenance of a Child Care Facility (3 - 0) 3 Cr. Hrs.
The course will cover methods of operating and maintaining a child care facility. Included will be current laws and regulations regarding licensing, equipping and maintaining the physical plant, staffing, food services, health and social services, budgeting, and program development.
Prerequisite: None.
- CCD 215 Methods and Curricula for Persons with Developmental Disabilities (3 - 0) 3 Cr. Hrs.
The objectives of this course are to familiarize the student with the theoretical approaches to developmental disabilities and to introduce methods of assessing severely handicapped children. A survey of the various curricula used with children and adults with developmental disabilities is included.
Prerequisite: None.
- CCD 216 The Child with Special Needs (2 - 2) 3 Cr. Hrs.
This course is designed to introduce the student to children and adults who have special needs. Included are children and adults who have mental retardation, emotional impairment, hearing impairment, visual impairment, learning disabilities, and those who have orthopedic or other health handicaps. Visitations to off- campus institutions and special education classrooms will be made.
Prerequisite: None.

COLLEGIATE SKILLS

Assistant Dean: Deborah B. Daiek, PhD
Instructors: Associate Professor Donna Clack, MA
Adjunct Faculty

- COLLS 050 Learning Power (4 - 0) 4 Cr. Hrs.**
An individualized, tutorial approach is used to improve reading skills. Students work on vocabulary and comprehension skills at their own pace and in group meetings. Students will explore and develop classroom success strategies.
Prerequisite: None.
- COLLS 053 Critical Thinking Applications (4 - 0) 4 Cr. Hrs.**
This course is designed to prepare a student to successfully handle college level reading assignments. Reading comprehension techniques and vocabulary development strategies are emphasized using a variety of materials. Techniques will be applied to selected materials and textbooks students are currently using.
Prerequisite: COLLS 050 or equivalent.
Corequisite: Course is available in combination with other courses. Please consult current schedule of classes.
- COLLS 055 College Notetaking (1 - 0) 1 Cr. Hr.**
This course will prepare students for successful notetaking in lectures. Emphasis will be placed on enhancing listening skills, preparing for lectures and taking lecture notes. Application of notetaking skills in students' current classes will be stressed.
Corequisite: Recommended enrollment in another class requiring notetaking.
- COLLS 101 College Success (3 - 0) 3 Cr. Hrs.**
This course is designed to increase a student's learning potential and success in college. Each student will explore attitudes which lead to improved grades. Topics in this course include time/task planning, critical thinking/study techniques and exploring attitudes successful students bring to a learning environment. Each student will learn to apply principles covered in this course to other college courses.
Prerequisite: COLLS 053 or equivalent.
- COLLS 105 Learning Skills 1 (1 - 0) 1 Cr. Hr.**
COLLS 106 Learning Skills 2 (1 - 0) 1 Cr. Hr.
COLLS 107 Learning Skills 3 (1 - 0) 1 Cr. Hr.
This course is designed to provide students with the learning skills and support necessary to successfully balance academic and other life demands. Students will apply techniques to their personal situations and course load requirements.
Prerequisite: Consent of department.
- COLLS 108 Learning Skills 4 (1 - 0) 1 Cr. Hr.**
This course is designed to provide students with the learning skills and support necessary to successfully balance academic and other life demands. Students will apply techniques to their personal situations and course load requirements.
Prerequisite: COLLS 107.
- COLLS 210 Learning Theory (3 - 0) 3 Cr. Hrs.**
This course is designed to familiarize students with the theory and principles of academic skill development. A holistic approach related to tutorial relationships will be emphasized. Students will be required to apply theories, strategies and techniques in tutorial sessions which will be scheduled outside of class.
Prerequisite: COLLS 053 or equivalent.

COLLEGIATE SKILLS LEARNING COMMUNITIES

A network of paired offerings in a variety of content areas will be taught by faculty who are committed to a shared learning experience where personal involvement is emphasized. A variety of content options currently exist or are in a future planning stage which will bridge academic content with instruction in complementary studying and/or writing strategies. Currently, students can participate in coordinated studies through the two formats listed below.

1. Content-Focused Studies

Consist of a Collegiate Skills 053 or COLLS 101 course with a focus on the material encountered in a specified discipline. In all classes, learning skills strategic to successful completion of that particular course will be presented, using content-specific materials.

Offerings may include: (see current schedule of classes)

Collegiate Skills 053-Biology Focus

Integration of critical reading, lecture and lab notes will be stressed, as will organizational models to enhance long-term retention of essential biological concepts and terms.

Collegiate Skills 053-English Focus

Recognition of writing patterns will be stressed, as well as vocabulary skills and critical reading (content will be analyzed from novels, periodicals, and textbook chapters).

Collegiate Skills 053-Mathematics Focus

Critical reading strategies and analysis of mathematical concepts will be emphasized, as will math vocabulary, math-specific note taking skills, and story problem reading strategies.

2. Multiple Content Pairings

A multidisciplinary approach will be used to explore assignments in a variety of content areas, allowing students to explore key concepts in depth and learn strategies for academic success in specifically linked courses.

Students are to register simultaneously for these paired courses and work on assignments designed to complement learning from each content area in the pairing.

Collegiate Skills 101-Electronics 127

Students will explore learning strategies in the COLLS 101 course and apply them to the Electronics 127 content.

Collegiate Skills 101-English 101

Students will learn study strategies in the COLLS 101 course to complement the English text. Appropriate test question preparation and lecture note taking will be stressed. Reading materials will complement the English course content.

Collegiate Skills 101-Nursing Focus

Students will explore learning strategies in the COLLS 101 course and apply them to content covered in the Nursing programs.

COMMUNICATION ARTS

Associate Dean: Jeanne Bonner, MSA
Instructors: Associate Professor JuJuan C. Taylor, PhD
Adjunct Faculty

- COMA 103 Fundamentals of Speech (3 - 0) 3 Cr. Hrs.
Develops essential skills by directed practice in a variety of speech situations and furnishes basic knowledge necessary for intelligent speech improvement; stress on speaker's ideas, attitudes, and audience adjustment.
Prerequisite: None.
- COMA 126 Parliamentary Procedure (3 - 0) 3 Cr. Hrs.
A basic introduction to the theory and practice of procedural rudiments, with special consideration on the organization and conduct of business meetings.
Prerequisite: None.
- COMA 200 Interpersonal Communication (3 - 0) 3 Cr. Hrs.
Study and practical application exercises in the basic elements of interpersonal communication with emphasis on self-concept, perception, meanings, listening, feedback, defensive communication barriers, and nonverbal communication. Special attention will be given to improving interpersonal communication skills. This course may not be substituted for COMA 103.
Prerequisite: COMA 103 or consent of instructor.
- COMA 201 Discussion (3 - 0) 3 Cr. Hrs.
This course conveys a better understanding of human affairs. The student will review attitudes and skills for effective participation in discussion; including cooperative thinking, exchange of ideas, and problem solving.
Prerequisite: COMA 103 or equivalent.
- COMA 203 Contemporary Public Address (3 - 0) 3 Cr. Hrs.
A study of contemporary American speeches. Analysis of speeches from the 60s, 70s, 80s and 90s. We will explore the form and principles of modern day speeches.
Prerequisite: COMA 103.
- COMA 205 Argumentation and Persuasion (3 - 0) 3 Cr. Hrs.
A selected examination of argumentation and persuasion theory and its application in specialized forms.
Prerequisite: COMA 103 or equivalent.
- COMA 210 Communications for Leaders (3 - 0) 3 Cr. Hrs.
An exploratory examination of leadership roles. Designed as an overview to develop communication awareness in the role of the leader in interviews, group discussions, problem solving, staff meetings, presentations, and an examination of communication barriers.
Prerequisite: COMA 103 or consent of instructor.
- COMA 230 Introduction to Mass Communication (3 - 0) 3 Cr. Hrs.
Explore the history, economics and social influence of the broadcast media. Television, radio, print media, and motion pictures and/or theatre art will be surveyed. One objective is to create a more "critical consumer" of mass media.
Prerequisite: COMA 103.

COMPUTER AIDED DESIGN

Associate Dean: Fernon P. Feenstra, EdS
Instructors: Associate Professor Catherine Ferman, MS
Adjunct Faculty

- CAD 101 Introduction to Computer Aided Drafting (2 - 2) 3 Cr. Hrs.
This course is designed for the experienced drafter who wants to obtain some CAD skills. Topics to be covered include 2-D drawing creation, drawing, editing and plotting as well as view manipulation. The student will learn the basics about file saving, retrieving and copying.
Prerequisite: Drafting experience, consent of department.
- CAD 102 Advanced Topics in CAD (2 - 2) 3 Cr. Hrs.
This course is designed as an advanced course in computer aided drafting for the non-degree seeking design professional. These may be architects, engineers, product designers, or drafters already trained or employed in the field. Topics to be covered include three-dimensional solid modeling, parametric modeling, assembly and software customization. An understanding of two-dimensional commands and basic knowledge of drafting is required for this course. This course does not count towards a degree in Computer Aided Design.
Prerequisite: CAD 101 or equivalent. Industry experience will be considered.
- CAD 103 Engineering Graphics (2 - 2) 3 Cr. Hrs.
This course is designed to introduce the student to the basic concepts and standard practices necessary for the graphical communication of technical data. Included is the reading, interpretation and creation of engineering drawings, technical sketching and introduction to computer aided drafting (CAD). Topics introduced include orthographic projection, pictorials, sectioning, auxiliary views, dimensioning, tolerancing, surface finish and fasteners. This course is designed for the transfer Engineering student and as an introductory course for those who are considering a career as a mechanical or tool designer.
Prerequisite: None.
- CAD 105 Mechanical Engineering Drawing (3 - 2) 4 Cr. Hrs.
This course is designed to teach the student the concepts and standard practices involved in the creation of drawings/files/models. Sketching and computer aided drafting (CAD) will be the tools for communicating mechanical product information. The student will be expected to create 2-D drawings and simple 3-D models. Topics to be covered will be projection methods for creating orthographic auxiliary and sectional views, 3 dimensional models and full detail and isometric drawings with untoleranced dimensions, symbols and notes. The focus will be using the CAD system to create mechanical engineering prints. This course is designed for those who have chosen a career as a mechanical or tool designer.
Prerequisite: CAD 103 or equivalent.

- CAD 107 Detailing (2 - 4) 4 Cr. Hrs.
This course is designed to teach the student concepts and standard practices involved in the creation of detail and assembly drawings. Geometric Dimensioning and Tolerancing philosophy will be employed for controlling variations. Sketching and computer aided drafting (CAD) will be the tools for communicating mechanical product and tool information. The student will create 3-D models and 2-D drawings. Simple assemblies will be constructed and analyzed using previously created parts. Topics to be covered will be dimensioning standards and practices, tolerancing methods, tolerance stackup evaluation, G. D. & T. methods, 3 dimensional modeling, 2-D and data extraction from 3-D models.
Prerequisite: CAD 105 or equivalent.
- CAD 201 I-DEAS Level 1 (4 - 0) 4 Cr. Hrs.
This course will introduce students to the modeling and drafting packages in SDRC's I-DEAS Software. Topics will include the user interface, data management, master modeler, solid model creation, geometrical constraints and relations, assembly modeling and system hierarchy.
Prerequisite: CAD 105 or previous industry drafting experience.

COMPUTER ASSISTED MANUFACTURING

Associate Dean: Fernon P. Feenstra, EdS
Instructors: Professor James Kramer, MS
Adjunct Faculty

- CAM 102 Introduction to Computer Numerical Control (CNC) (2 - 2) 3 Cr. Hrs.
This course will provide the basic concepts of numerical control and how it is used in industry with respect to the machining process. NC machine axis systems, coordinate systems, part dimensioning and programming using incremental and absolute values will be taught. Manual data input and editing at machinery consoles using CNC training machinery will be the laboratory experience.
Corequisite: MFG 102 and/or previous machining experience.
- CAM 103 Computer Numerical Control Programming (2 - 2) 3 Cr. Hrs.
The programming of numerical controlled machinery expanded to include the computer and "off-line" programming. This course will include the use of "canned" programs for specific operations and computer simulation for testing developed programs. Tested and proven programs will be run on CNC training machines in the machine shop.
Prerequisite: CAM 102.
- CAM 204 CAD/CAM - Computer Aided Machining (0 - 4) 2 Cr. Hrs.
The course involves using a computer software program (AutoCad) to create a CAD drawing for tooling and manufacturing purposes. Computer assisted machining software will be used with student determined feed rates, spindle speeds, tooling and sequences of work elements for computerized (CAM) generation of the tool paths to fabricate a part.
Prerequisite: CAM 103.

COMPUTER GRAPHICS TECHNOLOGY

Associate Dean: Jeanne Bonner, MSA
Instructors: Associate Professor Steve Wroble, MA
Assistant Professor Colleen Case, MLS
Instructor Michael Mehall, MA
Adjunct Faculty

- CGT 104 Photoshop (2 - 0) 2 Cr. Hrs.
This course introduces students to the field of digital imaging and electronic photographic manipulation using Adobe Photoshop. Emphasis is placed on acquiring fundamental software skills through a series of progressively challenging assignments which mirror professional studio projects. Darkroom theory and color models will be examined in relation to manual techniques and their computer equivalents. Students are expected to have some computer experience and be familiar with basic functions of the computer before beginning the class.
Prerequisite: CIS 105 or equivalent. Test is available in the Learning Assistance Center.
- CGT 105 Macromedia Director 1 (2 - 0) 2 Cr. Hrs.
This course is designed to provide an overview of multimedia. It introduces the student to hardware and software for multimedia, including instruction in production planning, memory management, and importing/exporting considerations. It also includes instruction in Macromedia Director, emphasizing production planning, basic animation, and scripting.
Prerequisite: Consent of Instructor.
- CGT 106 Harvard Graphics (2 - 0) 2 Cr. Hrs.
This course introduces the student to the Harvard Graphics for Windows business graphics software. Emphasis is on learning the software and on applying basic design principles to business charts and graphs. This course introduces the student to the visual display of quantitative business information. Students are expected to have some computer experience and be familiar with basic functions of the computer before beginning the class.
Prerequisite: CIS 105 or equivalent. Test is available in the Learning Assistance Center.
- CGT 107 PowerPoint (2 - 0) 2 Cr. Hrs.
This course introduces the student to the Microsoft PowerPoint presentations software. Emphasis is on learning the software and on applying basic design principles to electronic presentations. Students are expected to have some computer experience and be familiar with basic functions of the computer before beginning the class.
Prerequisite: CIS 105 or equivalent. Test is available in the Learning Assistance Center.
- CGT 108 Web Graphics (2 - 0) 2 Cr. Hrs.
This course introduces the student to the World Wide Web as a new communications media. The Web has made a global instant publishing media available to those who wish to participate. This course covers techniques for creating graphics for the Web. This includes skills in design, optimization compression techniques, color techniques, color theory and an understanding of multiple platform, operating systems and browser limitations.
Prerequisite: CIS 105 or equivalent. Test is available in the Learning Assistance Center.

- CGT 110 Graphics/Current Software (2 - 0) 2 Cr. Hrs.
This course is intended to introduce students to the field of graphic design and illustration using one of the professional computer drawing software packages. Emphasis is on learning the software and on applying basic design skills to the computer generated image. Students are instructed in the fundamentals of drawing on the computer, working with color, and working with type through a series of realistic graphic design projects. Students are expected to be familiar with basic functions of the computer before beginning the class.
Prerequisite: CIS 105 or equivalent. Test is available in the Learning Assistance Center.
- CGT 111 Graphics/Current Software (2 - 0) 2 Cr. Hrs.
This course is intended to introduce students to the field of graphic design and illustration using another professional computer drawing software package. Emphasis is on learning the software and on applying basic design skills to the computer generated image. Students are instructed in the fundamentals of drawing on the computer, working with color, working with type, and combining type and image for effective communication. Students are expected to be familiar with basic functions of the computer before beginning the class.
Prerequisite: CIS 105 or equivalent. Test is available in the Learning Assistance Center.
- CGT 112 Page Layout/Current Software (2 - 0) 2 Cr. Hrs.
This course is intended to introduce students to the field of publishing design using one of the page layout software packages. 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.
Prerequisite: CIS 105 or equivalent. Test is available in the Learning Assistance Center.
- CGT 113 Page Layout/Current Software (2 - 0) 2 Cr. Hrs.
This course is intended to introduce students to the field of publishing design using another professional page layout software package. Emphasis is on learning the software and on applying basic design skills to computer generated design. Students are instructed in the fundamentals of page layout, typography, working with color and color separations, and preparing camera ready documents. Students are expected to be familiar with basic functions of the computer before beginning the class.
Prerequisite: CIS 105 or equivalent. Test is available in the Learning Assistance Center.
- CGT 150 Typography (2 - 0) 2 Cr. Hrs. (8 weeks)
This course introduces the student to the principles of typography by investigating letter forms as both an element of design and as a medium of communication. Concentration is on typeface identification, effective use of type to convey information, measuring systems, and application of typography to computer graphics.
Prerequisite: ART 105 or ART 106.
- CGT 151 Survey of Design (2 - 0) 2 Cr. Hrs. (8 weeks)
This course introduces the student to the history of graphic design as a form of visual communication. Students examine the social, cultural, technical, and artistic influences the way information has been designed for publication.
Prerequisite: None.
- CGT 152 Screen Design for Electronic Media (2 - 0) 2 Cr. Hrs.
This course introduces the student to the unique design principles for electronic screen design. Designing for the World Wide Web 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.
Prerequisite: CIS 105 or equivalent. Test is available in the Learning Assistance Center.
- CGT 153 Portfolio Preparation (2 - 0) 2 Cr. Hrs.
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 students' strengths and weaknesses will be discovered and discussed. At least one project will be assigned to specifically address the individual student's portfolio needs. During the course students will create a traditional resume and customize it to attract the attention of a more creative eye. An identity project, including a working logo, business card, letterhead and promotional item which fits the student's style and personality will be designed and created for practical application.
Prerequisite: Completion of at least two CGT courses is required.
- CGT 154 Sound Design (2 - 0) 2 Cr. Hrs.
This course provides an introduction to the basic concepts of sound design for multimedia delivery systems. It will emphasize necessary hardware, sound formats, MIDI applications, sound editing and synchronization, and aesthetic considerations.
Prerequisite: CGT 105. CGT 205 concurrently recommended.
- CGT 155 Storyboarding (2 - 0) 2 Cr. Hrs.
This course provides the student a working knowledge of storyboarding. It integrates creative expressions, emotional impressions and production processes into a cohesive conclusion. It provides the student an opportunity to expand a creative understanding of audio, cinematography, lighting, and staging. Storyboarding is a basic need for the student pursuing careers in multimedia, interactive and performance arts. The course will use a digital sound editing application and Adobe Premiere to create a final demonstration of this skill set.
Prerequisite: CIS 105 or equivalent. Test is available in the Learning Assistance Center.
- CGT 156 Photography (2 - 0) 2 Cr. Hrs.
The course is designed to instruct the student on photographic principles that affect exposure, image structure, composition, printing and interface with digital media. Student will experience hands-on photography sessions that demonstrate lighting, visual effects and composition development based on contrast and focal point awareness. In conjunction with the camera, the student will explore advanced digital imaging options, the zone system and creative merging techniques. Course materials are designed for the student pursuing a graphic technology career. The student will be required to have a 35mm camera and is responsible for film and processing costs.
Prerequisite: CGT 104.

- CGT 204 Photoshop 2 (2 - 0) 2 Cr. Hrs.
This course provides the student with real world assignments which use and expand on the basic Photoshop software skills acquired in CGT 104. CMYK, RGB, and LAB color modes will be explored along with color correction techniques. Instruction in halftone creation and scanning theory will be given. Projects involving the creation of duo-tones and lighting effects, use of perspective and restoration of photos will be featured.
Prerequisite: CGT 104.
- CGT 205 Macromedia Director 2 (2 - 0) 2 Cr. Hrs.
This course provides advanced instruction in Macromedia Director and instruction in the graphic, audio, and video components of multimedia. Emphasis is on the multidisciplinary nature of multimedia. The student is instructed in elements of graphic design, digital sound and music, integrating digital video and Lingo scripting. Students will also be instructed in the use of appropriate hardware, software and peripherals.
Prerequisite: CGT 105.
- CGT 220 Electronic Imaging (4 - 0) 4 Cr. Hrs.
This course emphasizes the integration of design and software skills in the creation of effective graphic design projects. Students learn to integrate images and type, set up projects for printing, and to apply design principles to create effective and meaningful designs. Instruction in advanced software techniques and the use of a variety of peripherals is featured. Emphasis is on the application of software and design skills to a variety of realistic graphic design projects.
Prerequisite: CGT 110 and CGT 111. Completion of at least one CGT design elective recommended.
- CGT 225 Digital Imaging (4 - 0) 4 Cr. Hrs.
This course will further explore the uses of photography and the digital image in the field of graphic design. Students will learn how object-oriented graphics programs can interface with bitmap oriented programs such as Photoshop. Students will make extensive use of scanners and digital cameras to design and create graphic design projects including artwork for Web pages and multimedia applications.
Prerequisite: CGT 204.
- CGT 230 Electronic Publishing (4 - 0) 4 Cr. Hrs.
This course emphasizes the integration of design and software skills to create more effective page layouts. Students learn to use type effectively, integrate images and type, set up projects for printing, apply design principles to create effective and readable documents. Instruction in advanced software techniques and in the use of a variety of peripherals is featured. Emphasis will be on the application of software and design skills to a variety of realistic graphic design projects.
Prerequisite: CGT 112 and CGT 113. Completion of at least one CGT Design elective recommended.
- CGT 235 Web Design (4 - 0) 4 Cr. Hrs.
This course emphasizes the integration of design principles and software skills to create effective electronic presentations for electronic publishing distribution on the web. Students will focus on the advanced digital media features such as HTML and PDF file conversions. Students will apply software and design skills to a variety of realistic presentation design projects. Students will explore the World Wide Web: how the Web works, common browsers, assembling web pages and linking documents. FrontPage 98 or current HTML software will be used. The student will look at on-line design considerations, such as download times, limiting file size and file formats.
Prerequisite: CGT 107 and CGT 108.
- CGT 241 Multimedia (4 - 0) 4 Cr. Hrs.
This course provides advanced instruction in the concepts of animation, the creation of sound and music components with emphasis on audio delivery systems, interactive scripting, and the integration of media components. Students will work in multidisciplinary teams to design and create projects using Macromedia Director.
Prerequisite: CGT 205.
- CGT 250 Practical Application (3 - 0) 3 Cr. Hrs.
Students will work in teams to research, develop, and execute graphic design projects for local businesses and corporations. Emphasis is on applying skills to real world projects and on developing a professional portfolio. Students are instructed in team building, project management, research and interviewing techniques. Projects and business partners will change from semester to semester.
Prerequisite: Completion of at least one of the following: CGT 220, CGT 225, CGT 230, CGT 235, or CGT 241.
- CGT 251 Practical Application (3 - 0) 3 Cr. Hrs.
Students will work in teams to research, develop, and execute graphic design projects for local businesses and corporations. Emphasis is on applying skills to real world projects and on developing a professional portfolio. Students are instructed in team building, project management, research and interviewing techniques. Projects and business partners will change from semester to semester.
Prerequisite: Completion of at least one of the following: CGT 220, CGT 225, CGT 230, CGT 235, or CGT 241.
- CGT 270 Internship (3 - 0) 3 Cr. Hrs.
This internship is designed for the exceptional Computer Graphic Technology student. This course consists of 10-20 hours per week of off-campus work as an intern Graphic Designer with an approved business or company. Students must have completed one Practical Application class (CGT 250 or CGT 251). CGT Internships will be administrated by a full-time faculty member of CGT. The instructor and the business partner will jointly evaluate the student.
Prerequisite: CGT 250 or CGT 251 and consent of department.
- CGT 298 Honors Studies (3 - 0) 3 Cr. Hrs.
An opportunity for the talented student to explore individually, in depth, under the guidance of a faculty member, a topic, issue, or problem related to the field of Computer Graphics Technology. Available to Dean's List level students or equivalent and with the consent of the instructor.
Prerequisite: Students must complete (12) twelve hours of course work, Dean's List status (G.P.A. 3.5), and consent of faculty and associate dean.

COMPUTER INFORMATION SYSTEMS

Associate Dean: Fernon P. Feenstra, EdS
 Instructors: Professor Sharon Szabo, MBEd
 Professor David W. Ruokolainen, MS
 Professor Jerry Wale, MSEE
 Associate Professor Wilbur N. Brown, MA
 Associate Professor Doris McPherson, EdD
 Assistant Professor William Schlick, BEE
 Instructor Paul Turnage, MS
 Instructor Timothy Ellis, BBA
 Adjunct Faculty

NOTE: All the CIS courses listed below require the student to spend time outside the classroom in a specialized laboratory situation to complete assignments. State-of-the-art computer facilities are available for student use.

- CIS 105 Computer Orientation (1 - 0) 1 Cr. Hr.
 This course is designed for students who have had little or no experience with computers. Topics include introduction to the Windows based operating systems and some word processing concepts. Basic word processing concepts will be introduced using the hands-on approach. Successful completion of this course meets the minimum requirement needed to qualify a student to use one of the College's computers during open lab hours.
 Prerequisite: None.
- CIS 115 Introduction to Computer Based Systems (3 - 0) 3 Cr. Hrs.
 This is a survey course of micro, mini, and mainframe computer systems. Class lectures include the following topics: hardware and software fundamentals; telecommunication; networks; graphics; hypermedia; multimedia; systems design and development; artificial intelligence; computers at work, school, home; the Internet; computer security and risks; computers and the future. Approximately one-third of class time is spent as a hands-on course using IBM microcomputers to complete projects using current word processing, spreadsheet, and database management software programs.
 Prerequisite: OIS 100 or equivalent and CIS 105 or equivalent.
- CIS 120 Software Applications for the Microcomputer (3 - 0) 3 Cr. Hrs.
 This course is designed to provide practical, hands-on experience with knowledge for evaluation of popular software packages for the microcomputer. Current software products will be introduced and explored with emphasis in the areas of word processing, electronic spreadsheets and database management. Actual lab experience is planned in these areas. Other software packages that are timely and relevant will be introduced. A culminating project will be the integration of software packages into the overall design of the data processing requirements of a small business.
 Prerequisite: OIS 100 or equivalent and CIS 115 or equivalent.
- CIS 129 BASIC (3 - 0) 3 Cr. Hrs.
 An introductory programming course where students will learn the fundamentals of program design and implementation. Heavy emphasis is placed on program design techniques. Students will develop programs using top-down design, structured programming, and modular development methods.
 Prerequisites: None.

- CIS 140 Pascal (3 - 0) 3 Cr. Hrs.
 This course is designed to deepen the students' understanding of application of computer systems to business problems. This is accomplished through a detailed study of the PASCAL language. Emphasis is on programming skills of pseudocoding or flowcharting problem solutions, coding statements in a logical sequence, specifics of the PASCAL language, developing good programming practices, debugging errors to generate correct output, and appropriate internal documentation.
 Prerequisite: CIS 129.
- CIS 170 Microsoft Windows (3 - 0) 3 Cr. Hrs.
 This course is designed to explore the features of the Windows operating system. This includes modules such as Paint, Calendar, Notebook, and Wordpad 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 Start Menu, Taskbar, Display properties, Control panel, Dialog boxes, Help files, Wizards, and Clipboard. Multi-windows, multi-tasking will be discussed using Windows 32-bit, as well as 16-bit programs. An introduction to MS-DOS Operating Systems will be covered. It is recommended that students have experience using microcomputers and have proficiency in keyboard and mouse usage.
 Prerequisite: CIS 120 or microcomputer experience.
- CIS 175 Visual Basic (3 - 0) 3 Cr. Hrs.
 This course is designed to teach students Visual Basic for the primary purpose of programming Windows applications. The structure and the syntax of the language will be covered which includes forms, projects, objects and events. The course will also cover debugging and error handling, file input and output and object linking and embedding (OLE) methods. It is recommended that students have experience using Microsoft Windows before taking this course.
 Prerequisite: CIS 129 and CIS 170 or equivalent Windows experience.
- CIS 180 Spreadsheet Applications (3 - 0) 3 Cr. Hrs.
 This course teaches how to analyze comprehensive problems and design the worksheet solution in light of established goals. Worksheets will be created and modified that solve problems and that are useful decision-making tools. Emphasis is on designing solutions to problems by thinking through the problems and developing logical solutions to solve the problems using a comprehensive host of features in a popular spreadsheet software package.
 Prerequisite: CIS 120.
- CIS 205 Object-Oriented Programming using Delphi (3 - 0) 3 Cr. Hrs.
 An introduction to object oriented programming using Object Pascal (via the Delphi Integrated Development Environment). Students will create several Microsoft Windows-based application programs using oriented programming concepts (encapsulation, inheritance, and polymorphism).
 Prerequisite: CIS 140 or equivalent.
- CIS 210 Programming with "C" (3 - 0) 3 Cr. Hrs.
 The course is designed for those students who are pursuing a career in computer programming. The students will learn this "C" programming language by using actual problems from industry and business. The students will thoroughly examine all the commands, structures and functions of the "C" programming language.
 Prerequisite: Two programming classes.

- CIS 211 Introduction to C++ (2 - 0) 2 Cr. Hrs.
This course is an introduction to the C++ Programming language. The student will learn the basics of the C++ language up through and including control structures, functions, and pointers. This course is intended for those who want a general knowledge of the C++ language.
Prerequisite: One programming class.
- CIS 215 Advanced Software Applications for the Microcomputer (3 - 0) 3 Cr. Hrs.
This course is designed for students who have a working knowledge of the microcomputer and word processing, spread sheet, and database packages. Advanced features of the software are developed building on a foundation of a beginning software applications course.
Prerequisite: CIS 120, or CIS 180 recommended; or written approval of the CIS Department.
- CIS 221 Advanced C++ (2 - 0) 2 Cr. Hrs.
This course is a continuation of the Introduction to C++ Programming language course. The student will learn the advanced concepts of the C++ language up through and including: operator and function overloading inheritance, virtual functions, polymorphism, stream I/O, templates, exception handling, file processing, and data structures. This course is intended for those who desire an advanced knowledge of the C++ language.
Prerequisite: CIS 211.
- CIS 225 Database Management Systems for the Microcomputer (3 - 0) 3 Cr. Hrs.
This course covers a popular relational database in depth. Emphasis is on creating, editing, sorting, linking and querying databases. Labels, forms, switchboards, and custom reports will be created. Advanced topics include designing and creating a complete application system, as well as programming in SQL. Emphasis will also be on understanding the concepts behind database management system design, to prepare students to be both users and developers.
Prerequisite: One programming language class.
- CIS 235 Microcomputer Operations (3 - 0) 3 Cr. Hrs.
Advanced operating systems features including custom batch files, backup and disk organization will be covered. Microcomputer peripherals and upgrade features will also be emphasized. The students will examine the inside of the computer and practice adding upgrades, configuring systems, using diagnostic maintenance programs and installing software packages.
Prerequisite: CIS 170 or equivalent.
- CIS 250 Systems Development and Design (4 - 0) 4 Cr. Hrs.
The student is made aware of various tools available to the systems analyst in solving business problems. The more important, basic tools are used by the student in the design of a system for a practical business application. Emphasis is placed on the communication between the systems analyst and other levels of management. "Selling" of new systems and methods is stressed. Detailed steps of each phase of systems design are shown in their relationship to the overall study.
Prerequisite: One programming language class, CIS 120 and CIS 225.
- CIS 255 Introduction to LINUX (3 - 0) 3 Cr. Hrs.
This course is designed for students pursuing careers in computer information systems or currently in the industry. This is an introductory course that provides an overview of the LINUX operating system. A hands-on approach to common LINUX applications is used. Topics discussed include the LINUX operating system, basic LINUX desktop and terminology, LINUX utilities, and basic bash programs.
Prerequisite: CIS 170 or equivalent experience.
- CIS 260 Introduction to UNIX Systems (3 - 0) 3 Cr. Hrs.
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 system philosophy, basic UNIX commands and terminology, UNIX utilities, and an introduction to shell programming.
Prerequisite: None.
- CIS 265 Networking 1 (3 - 0) 3 Cr. Hrs.
This course is designed to introduce the student to communications terminology and technology using telecommunications and a local area network (LAN). The student will practice installing and maintaining a LAN.
Prerequisite: CIS 235.
- CIS 275 Advanced Visual Basic (3 - 0) 3 Cr. Hrs.
This course is designed for students who already have a working knowledge of Visual Basic. The course will cover the fundamental concepts in more detail and at a greater depth, as well as introduce more advanced concepts and techniques. These concepts and techniques will include but not be limited to: Visual Transitions, Image Processing Techniques, Program Optimization, Application Programming Interface (API) Routines, Database Programming, OLE Automation, Visual Basic For Applications (VBA), Dynamic Link Libraries (DLLs) and Multimedia Programming.
Prerequisite: CIS 175 or equivalent.
- CIS 276 Networking 2 (3 - 0) 3 Cr. Hrs.
This course is designed to follow the introduction to networking (Networking 1) course. Students will learn LAN configurations and protocols. Installation, management and troubleshooting Microsoft Windows NT Server 4.0 on a local area network. Additional topics on hardware, clients, domains, user accounts and printers will be covered.
Prerequisite: CIS 265.
- CIS 290 Object-Oriented Programming with Java (3 - 0) 3 Cr. Hrs.
A continuation of object-oriented programming. Students will develop real world application programs and Web-based applets based on object-oriented programming concepts (encapsulation, inheritance, and polymorphism).
Prerequisite: CIS 205 or CIS 221 or an introduction to Java course or equivalent.

COMPUTER INTEGRATED MANUFACTURING

Associate Dean: Fernon P. Feenstra, EdS
Instructors: Professor James Kramer, MS
Adjunct Faculty

- CIM 202 Electric Motors and Hydraulic Servo Control (2 - 2) 3 Cr. Hrs.
This course is designed for students who will learn about the different types of electric motors used on robots and automation systems: stepper motors; brushless and permanent-magnet DC motors, motor control devices, AC induction, three-phase, and synchronous motors. The student will learn about hydraulic servo-control valves that are used as a force amplifier for motor control of robots and automation parts positioning.
Prerequisite: ELECT 135 or Associate Degree in Applied Science.
- CIM 217 Robotic Programming (2 - 2) 3 Cr. Hrs.
This course aids in the understanding and operation of computer aided manufacturing. The student is introduced to functional flow charting of the controls of small robots, host computer communications, simple databases and robot sensors. Students perform projects of pick and place, computer generated speech, motion detection, ranging and others. A course project is required.
Prerequisite: None.
- CIM 230 Programmable Logic Controller Programming (3 - 2) 4 Cr. Hrs.
This course emphasizes the understanding of underlying principles of how programmable logic controllers (PLC's) work and provides practical information about installing, programming, and maintaining a PLC system. All topics are covered in small segments to develop a firm foundation for each concept and operation before the student advances to the next phase of PLC programming. No previous knowledge of PLC systems or programming is assumed.
Prerequisite: None.
- CIM 243 Work Cell Applications (2 - 4) 4 Cr. Hrs.
Theory and application of computer aided design and computer aided manufacturing which will interface computer numerical control machines and robots for palletizing (loading and unloading) and machine insertion. Each device is integrated through computer control and programmable controllers for material handling systems.
Prerequisite: CIM 217 or Associate Degree in Applied Science.
- CIM 245 3-D Modeling (2 - 2) 3 Cr. Hrs.
Solid modeling involves solid geometries such as blocks and sphered objects that provide an inside and outside to the model. Solid modeling will include working with real life objects mode that can be used to perform accurate analysis. Solid simulations will be used to verify design forms, fit and manufacturing operations.
Prerequisite: CIM 217 or Associate Degree in Applied Science.

COMPUTER SERVICE

Associate Dean: Fernon P. Feenstra, EdS
Instructors: Adjunct Faculty

- COMPS 126 Technical Programming (3 - 0) 3 Cr. Hrs.
The student will write a series of technical related programs in the BASIC language. The student will also use the computer to solve problems relating to his/her degree program.
Prerequisite: None.
- COMPS 146 Computer Peripheral Service and Repair (2 - 4) 4 Cr. Hrs.
This course gives the student exposure to common computer peripherals. These include printers (dot matrix, laser, ink jet, color), monitors (color alignment, setup, calibration, types, repair), disk drives (floppy & hard drives), serial and parallel data communication between computers, computer to printer and computer to modem. Adjusting, cleaning, aligning, setup and testing. Circuits will be covered to the block diagram level, and depending on the interests and background of the class, component level circuits may be covered.
Corequisite: ELECT 128 or consent of department.
- COMPS 246 Computer Peripheral Service and Repair (2 - 4) 4 Cr. Hrs.
This course organizes the students' knowledge of digital electronics and computer circuits and applies this knowledge to the understanding of a microcomputer system. Each of the major functional units of a single board computer will be covered. Examples of practical circuits will be used and analyzed. Circuits will be covered to the block diagram level, and depending on the interests and background of the class, component level circuits may be covered. Introduction to networking and file transfer will be covered, as time permits.
Prerequisite: Digital Electronics and COMPS 146.
- COMPS 265 Circuit Analysis and Repair Internship (2 - 4) 4 Cr. Hrs.
This course gives the student experience in the real world of computer servicing, maintenance and diagnostic software. Students will work under the supervision of computer service personnel in a service department. Expected duties may include: Preventive Maintenance (P.M.), disk drive repair, computer repair, printer adjustment and repair, the fabrication, repair and installation of cabling and any other duties a computer service person would be expected to perform (four hours per week). The student will use an assortment of common diagnostic and repair software. Disk drive maintenance, data integrity, and data recovery techniques will be introduced. During the term, the student will work within the parameters of a selection of operating systems (two hours lecture and four hours lab).
Corequisite: COMPS 246. COMPS 146 recommended.

CONSERVATION

Associate Dean: Midge Carleton, MS
Instructors: Adjunct Faculty

- CON 101 Conservation and Natural Resources (3 - 0) 3 Cr. Hrs.
An introduction to the principles of conservation and natural resources use (soil, water, vegetation, wildlife, mineral, recreational, and human) and a review of conservation agencies and laws. The interrelationship of resources and their importance to our standard of living.
Prerequisite: One course in Biology and/or Geology is helpful.

CORRECTIONAL SCIENCE

Associate Dean: Robert F. Pearce, MPA
Instructors: Adjunct Faculty

- COR 110 Introduction to Corrections (3 - 0) 3 Cr. Hrs.
This course blends theory and operational knowledge for corrections. Students learn about the early development of corrections, sentencing, prisons, probation, parole, prisoner rights, community corrections, the role of the correctional officer and current concerns.
Prerequisite: None.
- COR 120 Correctional Facilities: Organization and Administration (3 - 0) 3 Cr. Hrs.
This course covers the organizational and operational methods used in correctional facilities. Students will describe the primary objectives of correctional institutions; distinguish between security levels, co-ed facilities and women's facilities; differentiate between safety and security, prisoner rights, and pre-release programs and recognize human concerns in custodial care.
Prerequisite: None.
- COR 150 Client Growth and Development (3 - 0) 3 Cr. Hrs.
This course covers the growth and development of offenders. The student will learn to differentiate between normal and criminal behavior, trace the human development of offenders, identify specific problems related to offenders and identify intervention strategies.
Prerequisite: None.
- COR 160 Client Relations in Corrections (3 - 0) 3 Cr. Hrs.
This course covers human behavior as it relates to client relations for offenders. Students learn the meaning and function of culture, the impact of discrimination, the various minorities represented in Michigan, attitude formation, and appropriate professional responses.
Prerequisite: None.
- COR 211 Legal Issues in Corrections (3 - 0) 3 Cr. Hrs.
This course is designed to alert students to relevant processes in the state and federal court systems, aspects of constitutional law and due process, search and seizure, and the court processes of arrest, arraignment, trial, and appeal. Students will identify major cases impacting corrections, current topics and American Correctional Association accreditation standards regarding legal responsibilities and court mandates.
Prerequisite: None.
- COR 231 Parole and Probation (3 - 0) 3 Cr. Hrs.
This course will cover pre- and post-institutional treatment and alternatives of parole and the activities related to probation. The student will examine the purpose and importance of parole and probation, identify and analyze the rule relative to each and study the functions and supervision of parole and probation as they relate to community programs and services. Parole Board functions, presentence reports and pre-release programs will be discussed in depth.
Prerequisite: None.



- COR 251 Prisoner Services: Treatment Programs (3 - 0) 3 Cr. Hrs.
This course will cover prisoner services in Corrections involving general programs, education and counseling. The student will learn the various treatment approaches in helping prisoners adapt to the institutional environment, including psychological factors, counseling, group therapy methods, medical and educational programs. The student will discuss administrator influence, custodial control and behavioral change of prisoners and current trends in correctional treatment approaches.
Prerequisite: COR 120.
- COR 261 Interviewing and Interrogation Techniques (3 - 0) 3 Cr. Hrs.
The student will identify the objectives of interviewing and interrogation; develop skill building techniques, using the mechanics of questioning; distinguish the finer points of investigation dealing with preparatory work, psychological factors and personal influence; explore in depth the rules of evidence, factors of admissibility, relevancy and competency. The student will describe the law governing the admissibility of this evidence.
Prerequisite: None.

CRIMINAL JUSTICE

Associate Dean: Robert F. Pearce, MPA
 Instructors: Associate Professor Kenneth Frayer, MA
 Associate Professor Orville Kappen, MA
 Adjunct Faculty

- CJ 102 Organization and Administration of Law Enforcement Agencies (3 - 0) 3 Cr. Hrs.
 Management, operations, communication, budgeting, recruiting, training and public relations in law enforcement.
 Prerequisite: None.
- CJ 104 Introduction to Security (3 - 0) 3 Cr. Hrs.
 A view into the private side of law enforcement. Career opportunities, history of both private and public law enforcement and their interrelationships. Liabilities of both sides.
 Prerequisite: None.
- CJ 107 Police Field Operations (3 - 0) 3 Cr. Hrs.
 Purpose, methods, types and means of law enforcement patrol. Accident prevention and effective traffic control.
 Prerequisite: None.
- CJ 113 Introduction to the Criminal Justice System (3 - 0) 3 Cr. Hrs.
 Course covers the overall system of criminal justice from crime detection to the release and revocation of prisoners. The student will examine the role of law enforcement officers, corrections officers, probation officers, defense attorney, prosecutor and judge as they relate to the defendant. The student will analyze the components of the system (law enforcement, courts and corrections) with emphasis on their interrelationships and expectations.
 Prerequisite: None.
- CJ 201 Criminal Investigation (3 - 0) 3 Cr. Hrs.
 Criminal investigation, techniques of surveillance; collection, recording and preservation of evidence. Analysis of evidence and use of science laboratory. Cooperation with other law enforcement agencies.
 Prerequisite: None.
- CJ 209 Basic Criminalistics (2 - 2) 3 Cr. Hrs.
 This course acquaints students with proper techniques of criminalistics. They will have an opportunity to perform investigations in simulated crime scene situations using scientific investigative techniques involving collection, presentation, and interpretation of physical evidence.
 Prerequisite: None.
- CJ 211 Criminal Law and Procedures (3 - 0) 3 Cr. Hrs.
 Elements of criminal law, purposes and function. Laws of arrest, search and seizure, rights and duties of officers and citizens. Elements necessary to establish crime and criminal intent. Sources of criminal law, criminal responsibility and general court procedures.
 Prerequisites: CJ 113 and CJ 102.
- CJ 212 Criminology (3 - 0) 3 Cr. Hrs.
 Theories of crime causation, behavioral systems in crime (organized white collar crime), nature and extent of crime, law as social control, history and philosophy of punishment, contemporary correctional techniques.
 Prerequisite: None.

- CJ 221 Juvenile Justice (3 - 0) 3 Cr. Hrs.
 Problems of juvenile delinquency, theories which explain juvenile delinquency, work of youth agencies, legislative involvement and new approaches to the prevention of juvenile crime.
 Prerequisite: SOC 201 or consent of department.
- CJ 285 Police Academy (11 - 24) 19 Cr. Hrs.
 (35 Hrs. Minimum Weekly)
 This course is designed to prepare recruits in the proper techniques of investigation, crime scene process, patrol procedures, operations and techniques, conflict mediation, report writing, detention and prosecution of prisoners, first aid, investigations, evidence collection, disaster control, civil disorders and tactical operations.
 Prerequisite: Consent of department before acceptance to the Police Academy.



CULINARY ARTS

Dean: Louis A. Reibling, PhD
 Instructors: Associate Professor Joseph Decker, CMPC
 Associate Professor Jeffrey Gabriel, CMC
 Associate Professor Kevin Gawronski, CMC
 Associate Professor Daniel Hugelier, CMC
 Assistant Professor Brian Polcyn, CEC
 Adjunct Faculty

Most courses are offered on a five-week, three per semester rotation.

- CAP 090 Introduction to Professional Cooking Skill and Technique (4 - 0) 4 Cr. Hrs. A pre-program requirement. This course will provide a broad orientation to the aspiring chefs so that they will better understand what is required to succeed in the industry. Emphasis for discussion will be on professionalism, safety and sanitation, equipment, and identification of food products. Students will be required to purchase an initial set of hand tools for skill development.
 Prerequisite: None.
- CAP 124 Breakfast and Pantry (4 - 0) 4 Cr. Hrs. This course will teach students all the necessary procedures and principles in basic cooking skills as related to breakfast and pantry cookery. Topics covered are egg, potato, meat, and cereal cookery. Buffet setups will be covered. Recipe procedure will be taught. Pantry cookery skills include basic pantry operation: simple and composite salads, salad dressings, fruit trays, and cold sandwich preparation.
 Prerequisite: CAP 090.
- CAP 125 Pastries 1 (4 - 0) 4 Cr. Hrs. This course will teach students all the necessary procedures and principles in the art of creating and producing many variations of beginning pastries. Upon successful completion of the course, the student will be able to: use measuring equipment and understand equivalents and conversions; understand and know proper usage of baking and pastry terminology; learn hand tools and machinery; regulate and use an oven properly; understand health, safety and sanitation of work areas; and make pies, puddings, pastries, cakes, tortes and cookies.
 Prerequisite: CAP 090.
- CAP 128 Introduction to Food Techniques (4 - 0) 4 Cr. Hrs. This course will teach the basic fundamentals of cooking techniques. The student will understand the methods of basic sauces, stocks, coulis' and soup preparation. The student will learn to apply the appropriate cooking methods for specific cuts of meat, fish, poultry and game. Vegetable and starch cookery will be included.
 Prerequisite: CAP 090.
- CAP 141 Culinary Sanitation (2 - 0) 2 Cr. Hrs. Upon successful completion of this course, the student will understand and apply basic sanitation techniques to the preparation of food products and in addition, will pass the required certification examination of the Educational Foundation. Topics are food borne illnesses, proper chemical usage, proper dish and pot washing, insect and rodent control, food storage and rotation, hazards in culinary environment, and state and national certification requirements.
 Prerequisite: CAP 090 or equivalent.
- CAP 142 Butchery (4 - 0) 4 Cr. Hrs. Students will learn commercial meat preparation, its fabrication, portion control and the importance of safe sanitary butchery practice. Students will select and prepare quality meats, fish and poultry for industry consumption and retail use. Students will be prepared to perform these important tasks in a safe and sanitary environment.
 Prerequisite: CAP 090.
- CAP 143 Dining Room Service (4 - 0) 4 Cr. Hrs. Upon successful completion of the course, the student will have the understanding to apply dining room procedures which include: identifying the seven service types; basic hot and cold beverage services; professional ethics; good self image; dependability, attitude, dedication, and understanding the art and science of employee relationships and the value of customer relationships.
 Prerequisite: CAP 090.
- CAP 144 Baking 1 (4 - 0) 4 Cr. Hrs. The student who completes this course will be able to understand different varieties of flour; know the purpose and chemical reaction of other ingredients in yeast doughs and quick breads; understand the nutritional value of baked goods; know how to use equipment for baking; understand proofing and fermentation of yeast products; understand different mixing methods; understand how to increase standard recipes, cost out a recipe; and produce French breads and rolls, hard rolls, soft rolls, pan breads, rye breads, whole wheat breads, corn bread, Danish pastry and coffee cakes, muffins, biscuits, quick breads, and cookies.
 Prerequisite: CAP 090.
- CAP 190 Externship (1 - 15) 3 Cr. Hrs. This course is designed to give the student without work experience a firsthand opportunity to gain working experiences in a quality run establishment while rotating through various work stations in that food service work environment. This is an elective course and requires department approval.
 Prerequisite: CAP 090.
- CAP 215 Charcuterie (4 - 0) 4 Cr. Hrs. Students in this course will acquire professional skills in variations of hors d'oeuvres and savories, seasonings, condiments, stuffed meats, curing, pickling, smoking of meat, fish and poultry. Proficiencies in sausage making, garde manger, pates, terrines, galantines and stuffed meats are learned.
 Prerequisite: CAP 090.
- CAP 227 Restaurant Cooking and Preparation (4 - 0) 4 Cr. Hrs. Students will participate in four workstations: Roast-Grill, Saute, Entremetier (middle station) and Garde Manger - Pantry. Students will learn cooking techniques and recipe development and the importance of consistency and clean work methods. Follow-through and plate presentation will also be taught.
 Prerequisite: CAP 090.
- CAP 229 International Cuisine (4 - 0) 4 Cr. Hrs. Students will learn the culture, history, and terminology of various international cuisines, and study their traditional and contemporary cooking techniques.
 Prerequisite: CAP 090.

- CAP 240** Pastries 2 (4 - 0) 4 Cr. Hrs.
This course will cover the intricate methods of producing fine pastries, puddings, mousse, cakes, tortes, ice cream desserts, chocolate work, sugar work, candies, marzipan designs and wedding cakes. Instruction covers recipe expansion, food costs and presentation.
Prerequisite: CAP 090 and CAP 125.
- CAP 241** Culinary Nutrition (2 - 0) 2 Cr. Hrs.
Lectures on nutrition and nutrition's relationship to heart disease, cholesterol levels and body metabolism, are supported by actual meal preparation. Students will learn how to apply sound nutritional theories. The course stresses preparation of healthful foods that are pleasing to both the eye and the palate in order to cater to the growing number of health-minded customers.
Prerequisite: None.
- CAP 242** A la Carte (4 - 0) 4 Cr. Hrs.
Upon successful completion of this course, the student will understand the basic fundamentals of food cookery, pates, terrines, salads and cold meats. The student will be able to apply modern techniques in the preparation and presentation of food using saute, grill, and using and understanding entremetier, garde manger, food storage, and proper lockdown/clean up procedures.
Prerequisite: CAP 090.
- CAP 243** Storeroom Operations (3 - 0) 3 Cr. Hrs.
Upon successful completion of this course, the student will have the basic knowledge of purchasing, receiving and inventory control through the use of the computer and the application of computer software which will enhance his/her ability to run a more effective and profitable kitchen operation.
Prerequisite: CAP 090.
- CAP 247** Banquets and Catering (2 - 2) 3 Cr. Hrs.
Upon successful completion of the course, the student will demonstrate his/her ability to display knowledge of a variety of catering operations. This will include planning, organizing, marketing, and executing receptions, parties, and special events. This is an elective course.
Prerequisite: CAP 090.
- CAP 260** Competitive Ice Carving (2 - 2) 3 Cr. Hrs.
This course is for students who wish to further their culinary artistry by entering individual or team competitive ice carving events. This is an elective course.
Prerequisite: Proficiency evidenced in CAP/CM courses.
- CAP 265** Advanced Competitive Ice Carving (1 - 3) 3 Cr. Hrs.
After completion, the student will be able to discuss safety procedures related to ice handling, describe tools and equipment used in ice carving, identify qualities of carving ice, and discuss proper care - sharpening of tools. Use of templates and production of basic carvings will be accomplished. Advanced carving ability incorporating joining, assembly and multi block will be learned. This is an elective course.
Prerequisite: CAP 260 or consent of department.



- CAP 267** Chocolatier (4 - 0) 4 Cr. Hrs.
This course is designed to introduce the student to the handling techniques of chocolate. Students will learn to use artistic pieces to decorate cakes and adorn pastry buffets. Students will also be exposed to modeling and sculpting of chocolate centerpieces, chocolate truffle making, and cocoa paintings. This is an elective course.
Prerequisite: CAP 090 or consent of department.
- CAP 295** Salon Competition 1 (2 - 2) 3 Cr. Hrs.
Students will participate in a class which will build and refine their culinary skills as have been evidenced by the Chef Instructors. This first course will introduce the students to the requirements necessary to successfully compete in culinary competition. Students selected for this class can form the College Culinary Team. A number of field trips and training sessions, off campus, will be scheduled. This is an elective course and it fulfills Goal #8.
Prerequisite: Selection to participate made by the Chef Instructor.
- CAP 296** Salon Competition 2 (2 - 2) 3 Cr. Hrs.
A continuation of Salon Competition 1 for students who have been selected to compete at state, national and international level culinary competition(s). The students will have to have demonstrated a proficiency for competition in Salon Competition 1 to be selected as participants in this advanced course. Selected students form a College Culinary Team and, as such a team, can represent Schoolcraft College in culinary competition(s).
Prerequisite: Selection to participate is made by the Chef Instructor. Satisfactory completion of CAP 295.

CULINARY MANAGEMENT

Dean: Louis A. Reibling, PhD
Instructors: Adjunct Faculty

- CM107 Culinary Management - Food and Culture (3 - 0) 3 Cr. Hrs.
A cross cultural, interdisciplinary investigation into the relationships between the foods humans prepare and consume and the cultures they build. The course will demonstrate the ways intellectual, social, religious and political events affect the preparation of food in various civilizations and at various periods in human history.
Prerequisite: None.
- CM203 Restaurant Concepts & Design (3 - 0) 3 Cr. Hrs.
This course will explore new concepts for the entrepreneur in the restaurant industry. It will emphasize the new trends and restaurant decor, along with facility layout and design.
Prerequisite: Completion of two-year CAP.
- CM210 Wine & Spirits (3 - 0) 3 Cr. Hrs.
Comprehensive, detailed information about the origins, production and characteristics of all types of alcoholic beverages: Wines from all over the world, beers, ales and distilled spirits, including brandies and liqueurs. Attention is given to table, sparkling and dessert wines. The student will gain understanding of purchasing and storing wines, retail merchandising, bar operation and beverage management. Understanding of wine and spirit laws. This is an elective course.
Prerequisite: None.
- CM211 Culinary Marketing for the Restaurant Industry (3 - 0) 3 Cr. Hrs.
Overview of the general concepts of marketing and its relation to the restaurant business. The students will learn about product merchandising, promotion and customer satisfaction. They will explore the different styles of advertising and how to measure the effectiveness.
Prerequisite: Completion of two-year CAP.
- CM213 Culinary Management for Restaurant Operation (3 - 0) 3 Cr. Hrs.
Learn practical applications of restaurant management principles. This course will explore various management styles, focus on the use of financial statements as a management tool, review cost controls and explore techniques in personnel management. In addition, planning and organization skills will be discussed.
Prerequisite: Completion of two-year CAP.
- CM222 Management Accounting in the Restaurant Industry (4 - 0) 4 Cr. Hrs.
Students will learn accounting concepts that match the skills required to manage a restaurant. There will be a review of the preparation of basic accounting statements, including income statements, balance sheets and statements of cash flow. Other concepts discussed include forecasting, break-even analysis and taxes. Students will use computer software applications.
Prerequisite: Completion of two-year CAP.

DRAFTING AND DESIGN

Associate Dean: Fernon P. Feenstra, EdS
Instructors: Associate Professor Catherine Ferman, MS
Adjunct Faculty

- DRFG112 Descriptive Geometry (2 - 4) 3 Cr. Hrs.
Graphic representation and solution of space problems, basic and advanced orthographic projection, points, lines, planes, solids, auxiliary views, parallelism, perpendicularity, developments and intersections.
Prerequisite: CAD 103 or consent of department.

DESIGN

Associate Dean: Fernon P. Feenstra, EdS
Instructors: Adjunct Faculty

- DSGN113 Hydraulic/Pneumatic/Electrical Schematics (2 - 2) 3 Cr. Hrs.
This course uses AutoCad to design hydraulic, pneumatic, and electrical schematics for industrial control systems which involves motor control drawings, programmable logic controllers, input/output modules, handwiring schematics, panel layout, bill of materials, and layout of the system.
Prerequisite: CAD 101 or consent of department.
- DSGN180 Machine Elements and Design (3 - 2) 4 Cr. Hrs.
This course is designed to introduce the student to the various machine elements and the mechanical/working relationship between elements that make up a mechanism. The machine element concepts covered include fasteners, gears, cams, linkages, and bearings. The introduction to the design process includes problem definition, needs analysis, design performance objectives, cost analysis, design alternatives, feasibility analysis and design selection.
Prerequisite: CAD 107 or equivalent.
- DSGN240 Tool and Die Design (2 - 4) 4 Cr. Hrs.
This course covers the development of press working tools such as cutting dies, piercing dies, forming dies and drawing dies. From the scrap strip to the assembly drawing, the designing procedure is analyzed. Sketching and AutoCad will be used to develop and draw the designs.
Prerequisite: CAD 107 or equivalent or consent of department.
- DSGN260 Jig and Fixture Design (2 - 4) 4 Cr. Hrs.
This course covers the development of work holding and tool guiding devices used in manufacturing. Emphasis is placed on the types of tools, supporting and locating principles, clamping methods, construction methods, initial design procedure and working drawing requirements. Design projects are used to reinforce theory and to provide an opportunity to gain practical experience. Sketching and CAD will be used to develop, create and detail designs and assemblies. ANSI/ASME Standards will be followed.
Prerequisite: CAD 107 or equivalent or consent of department.

ECONOMICS

Associate Dean: Fernon P. Feenstra, EdS
 Instructors: Professor Frederick Galperin, EdS
 Professor Prantosh Nag, PhD
 Associate Professor Cedric Howie, MS

- ECON 103 Introductory Economics (3 - 0) 3 Cr. Hrs.
 A survey of the macroeconomic concerns of national income determinations, business cycles, unemployment, inflation and both fiscal and monetary policies to stabilize the aggregate economy. A survey of the microeconomic fundamentals of demand, supply, elasticity, consumer choice, the production costs of output and resource allocation of firms operating under various market structures, and the international economy.
 Prerequisite: None.
- ECON 201 Principles of Economics (4 - 0) 4 Cr. Hrs.
 An introduction to the theory of demand and supply models, income determination, business cycles, national income analysis and economic growth. The role of the labor and capital markets in economic activity will be examined to explore the problems of unemployment and inflation. The functioning and impact of the monetary system will be introduced. Government stabilization activity utilizing monetary and fiscal policies will be explored. The mechanics of international goods transactions and the balance of trade will be examined as they influence the domestic economy.
 Prerequisite: MATH 051 or equivalent.
- ECON 202 Principles of Economics (4 - 0) 4 Cr. Hrs.
 An introduction to the theory of consumer behavior, production theory, market structure in product and resource/factor markets, and microeconomic policy.
 Prerequisite: MATH 051 or equivalent.

ELECTRICITY, ELECTRONICS, ELECTROMECHANICS

Associate Dean: Fernon P. Feenstra, EdS
 Instructors: Professor Ronald McBride, MA
 Assistant Professor William Schlick, BEE
 Adjunct Faculty

- ELECT 119 Basic Measurement and Reporting Skills (3 - 0) 3 Cr. Hrs.
 This course is designed for students who are pursuing a career in electronics or electronic related fields. The student will receive instruction on how to conduct career research and in the proper use of basic measuring instruments, such as the Digital Multimeter (DMM), the Volt-Ohm-Meter (VOM), the sinewave generator and the oscilloscope. In the electronics laboratory, the student will make measurements, record data, maintain a log book and develop conclusions based on the results. In the computer laboratory, students will learn how to organize and report their findings using word processing, spreadsheet, and presentation software.
 Prerequisite and/or Corequisite: ELECT 127.

- ELECT 125 Electrical, Electronics Experience 1 (0 - 40) 3 Cr. Hrs.
 This is the first cooperative industrial assignment for a student who has successfully completed 26 credit hours of the program. Employment will be full time outside the college in a meaningful technical capacity with duties approximating those of a beginning technician. The assignment will be made upon consent of the student and mutual approval of both the department and the coordinator. The employer must agree to a rotation policy in which the student is able to alternate college and work every four months. Both the College and the employer will jointly evaluate the student. Evaluation will serve as basis for grade in the course.
 Prerequisite: Consent of department.
- ELECT 127 DC Circuits and Mathematical Modeling (5-0) 5 Cr. Hrs.
 This course is the study of basic DC fundamentals and mathematical modeling for the electronics careers which includes: Ohm's law, Power law, and Kirchhoff's laws with application to solving series, parallel, and series-parallel combination circuits. Other topics will include resistors, color code, magnetism, electromagnetism, and test equipment. The mathematics skills needed for an electronics career will also be covered in this course. The student will be prepared to enter the second semester course of ELECT 128 AC Circuits and Mathematical Modeling. Laboratory experiments and projects are utilized to teach the use of test equipment and to demonstrate the principals taught in lecture. Computer assignments are incorporated to enhance learning and to familiarize students with instructional and simulation software.
 Prerequisite: High School Algebra 1 or Corequisite of COLLS 101.
- ELECT 128 AC Circuits and Mathematical Modeling (5-0) 5 Cr. Hrs.
 This course is designed to explore the theory and application of AC fundamentals. Sine wave generation and analysis will be studied. The theory of Kirchhoff's laws will be used to solve AC series, parallel and series-parallel circuits using the method of phasors. Other topics covered include: capacitors, inductors, transformers, resonance, passive filters, RC and RL circuits. Laboratory experiments are used to teach the use of common test equipment and to demonstrate the principals taught in lecture. PC's with Electronic Workbench will be used in laboratory experiments for modeling, simulations, and troubleshooting.
 Prerequisite: ELECT 127.
 Corequisite: ELECT 129.
- ELECT 129 Diodes and Transistors (3 - 0) 3 Cr. Hrs.
 This course will introduce the students to various semiconductor devices starting with a discussion of internal construction, followed by circuit configurations, applications, and troubleshooting techniques. Diodes will be discussed first and will include signal, rectifier, Zener and, light emitting types. Transistor material will cover NPN and PNP bipolar types, J type FETs, enhancement and depletion MOSFETs. Finally, transistor switching circuits will be examined.
 Prerequisite: ELECT 119 and ELECT 127.
 Corequisite: ELECT 128.
- ELECT 134 Introduction to Microprocessors (3 - 0) 3 Cr. Hrs.
 This course will introduce the student to the concepts of microcontroller architecture, block components, numbering systems and assembly code. Representative microprocessor commands and elementary programming to the 68HC11 microcontroller will be studied. Student familiarity in using Windows-based software on a PC is desirable.
 Prerequisite: COMPS 126.

- ELECT 135** Fluid Power (4 - 0) 4 Cr. Hrs.
This course emphasizes the understanding of fundamentals of hydraulics and pneumatics. In this course students will design, analyze, operate, and maintain fluid power systems. Emphasis is placed on understanding the physics of fluids and how energy, power, and force affect the devices that make up a hydraulic and pneumatic system.
Prerequisite: MATH 051 or equivalent.
- ELECT 200** Electrical, Electronics Experience 2 (0-40) 3 Cr. Hrs.
This is a cooperative industrial assignment for students who are continuing work-study programs on a rotational basis. The conditions for assignment and evaluation and the employer's responsibilities are the same as for ELECT 125 - Electrical, Electronics Experience 1. Students are expected to handle technical responsibility and perform tasks like the operation of complicated equipment, taking and presenting data, repair of equipment, assembly and construction of experimental models, electrical drafting, and writing specifications.
Prerequisite: ELECT 125 and ELECT 226.
- ELECT 204** Microcomputer Interface (2 - 3) 3 Cr. Hrs.
This course will introduce the student to various microcomputer interfaces by having the student develop programs and verify their operation with the actual interface hardware.
Prerequisite: ELECT 134 completed within the past year, ELECT 226 and ELECT 206.
- ELECT 206** Operational Amplifiers and Linear Integrated Circuits (4 - 0) 4 Cr. Hrs.
This course will introduce the student to operational amplifiers (op amp) and linear integrated circuits. Op-amp circuit configurations, applications, and troubleshooting techniques will be presented. Operational amplifiers will be presented with emphasis on applications and circuits such as inverting and non-inverting amplifiers, integrators, differentiators and filters. The coverage of linear integrated circuits includes voltage comparators, timers, oscillators, voltage regulators special purpose amplifiers, communications circuits and data conversion circuits.
Prerequisite: ELECT 129.
- ELECT 225** Electrical, Electronics Experience 3 (0 - 40) 3 Cr. Hrs.
This is an industrial assignment for a student who has been employed at least eight months as a cooperative student. The conditions for assignment and evaluation and the employer's responsibilities are the same as for ELECT 125 - Electrical, Electronics Experience 1. In this capacity the student can be expected to assume technical responsibility at the level of a technician with six months experience.
Prerequisite: ELECT 200.
- ELECT 226** Digital Logic Circuits (4 - 0) 4 Cr. Hrs.
This course acquaints students with Boolean algebra (emphasizing NAND and NOR) and various medium scale integrated circuits like exclusive or encoders, decoders, multiplexors, adders, counters, and shift registers. Also included are memory (core, RAM and ROM) and bidirectional line drivers. The laboratory work coincides with classroom lecture material utilizing integrated circuits almost exclusively.
Prerequisite: ELECT 129.
- ELECT 229** Electronics Troubleshooting (3 - 0) 3 Cr. Hrs.
This course covers the technique of troubleshooting along with the application of basic instrumentation used in the process. Laboratory work will offer opportunity for actual troubleshooting experience. This experience will include both reporting failure data and description of parts to be ordered.
Prerequisite: ELECT 206 and ELECT 226.
- ELECT 237** Programmable Logic and Industrial Controls (4 - 0) 4 Cr. Hrs.
This course will introduce the student to control circuits that receive input information and processes this information to energize output devices, such as solenoids, lights, motors, and control relays. Emphasis will be placed in using the programmable logic controller's software as the system's decision-maker, which is carried out by coded instructions that are stored in a memory chip and executed by a microprocessor. The student will learn how a system uses self-correcting action through self-monitoring by a closed-loop system. Also, DC and AC motors will be covered on how they work and are used as a final correcting device in an industrial control system.
Prerequisite: ELECT 127 or consent of department.
- ELECT 240** Electronic Data Communication (3 - 2) 4 Cr. Hrs.
The student will first study the basics of communications which include AM, FM and PM (modulation), receivers and transmitters, antennas and transmission lines. Then the data communication concepts will be covered, starting with the telephone line equipment, then MODEMS and RS standards, and finally fibre communication links.
Prerequisite: ELECT 226 and ELECT 206.
- ELECT 241** Electronics Projects (3 - 0) 3 Cr. Hrs.
Advanced use of electronics and a microcomputer to design, build and operate a real-time system. The student will apply the concepts learned in prior electronics classes involving digital and analog signal processing (hardware) with the concepts learned in prior programming classes (software) in order to control real world devices using a microcomputer. The student will design and build the hardware interfacing needed to accomplish the goal of data acquisition. The student will design and program the necessary software to control the hardware, as well as process and display data on a microcomputer. The final project will permit the student to create a system which involves data acquisition, hardware control and data processing to produce an intelligent system.
Prerequisite: ELECT 229.
- ELECT 250** Individual Student Project (3 - 0) 3 Cr. Hrs.
Students will plan, organize, assemble or fabricate and test the project of their choice or one suggested by instructor. Under guidance of the instructor, the electronic laboratory will be made available three hours a week in which time the student may perform tests.
Prerequisite: By midterm of the previous semester, the student submits a written proposal for approval by department.



EMT - EMERGENCY MEDICAL TECHNOLOGY

Associate Dean: Robert F. Pearce, MPA
 Instructors: Adjunct Faculty
 Program Coordinator: Thomas Ayers, P I/C

- EMT 107** Emergency Medical Technology - Basic (8.5 - 4) 10.5 Cr. Hrs.
 The Basic Emergency Medical Technology course is a Department of Consumer and Industry Service Emergency Medical Services Division-approved course. The course provides the information and experience necessary to prepare the student to take the State of Michigan Basic licensing examination. Students learn the role and responsibilities of an emergency medical technician in providing emergency care. Content areas are covered in lectures, practical skills practiced in a laboratory, and observations and applications experienced in a clinical setting.
 Prerequisite: None.
- EMT 113** Emergency Medical Technology - Specialist (3 - 4) 5 Cr. Hrs.
 The Specialist Emergency Medical Technology course is a Department of Consumer and Industry Service Emergency Medical Services Division-approved course that provides the information and experience necessary to prepare the student to take the State of Michigan EMT Specialist licensing examination. All procedures for the course are evaluated by a physician advisor. This course is designed to teach students how to deal with more complex medical emergency situations than are handled in the basic EMT course (EMT 107). Students develop advanced skills in diagnosis and emergency treatment short of those rendered by physicians or by allied health personnel under the direct supervision of the physician.
 Prerequisite: EMT 107.
- EMT 155** Paramedic Technology (13 - 6 - 14) 18 Cr. Hrs.
 This 40-week course provides the information and experience necessary to prepare the student to take the State of Michigan Paramedic licensing examination for State and National certification as a paramedic. EMT 155 is designed to give students extensive practical application of the knowledge and skills acquired in EMT 107 and EMT 113 in complex medical situations. The course focuses on state-of-the-art medical technologies and medical emergency management. Students apply their skills in both hospital emergency rooms and ambulances under the guidance of professionals.
 Prerequisite: EMT 107.

ENGLISH

Associate Dean: Jeanne Bonner, MSA
 Instructors: Professor Sumita Chaudhery, PhD
 Professor Steven Dolgin, DA
 Professor Richard Gordon, MA
 Professor Dumont Hixson Jr., MA
 Professor Suzanne Kaplan, MA
 Professor Arthur Lindenberg, MFA
 Professor John Nathan, PhD
 Professor Mary Powell, MA
 Professor Joanne Stein, MA
 Professor Gordon Wilson, MA
 Associate Professor Omar Addi, MA
 Associate Professor Mary Alice Palm, MA
 Associate Professor Faye Schuett, PhD
 Associate Professor Ida Simmons-Short, MA
 Associate Professor Mark Harris, MA
 Adjunct Faculty

ENGLISH GENERAL NOTE- Word Processing skills will assist students in the preparation of writing assignments.

- ENG 050** Modern English Grammar (3 - 0) 3 Cr. Hrs.
 This is the first of a two-part course (ENG 050/055) designed to prepare students for composition courses. The content focuses on major grammatical concepts: parts of speech, sentence functions, sentence patterns, clauses, sentences with multiple clauses and punctuation. A grade of 2.0 or better in ENG 050 is necessary to enter ENG 055.
 Prerequisite: None.
- ENG 052** English Grammar for Second Language Students (3 - 0) 3 Cr. Hrs.
 An English course designed to aid the foreign student in developing skills in written communication. It is specifically for nonnative writers who have difficulty with English composition.
 Prerequisite: None.
- ENG 055** Building Writing Skills (3 - 0) 3 Cr. Hrs.
 This is the second of a two-part course (ENG 050/055) designed to prepare students for composition courses. The major goals are mastering basic paragraph structure and writing clear, efficient sentences. In connection with paragraph structure, students will study topic sentences, ways to improve paragraph content, and strategies for organizing paragraphs. In studying sentences, students will work on better word choices, spelling, and sentence patterns. Accurate spelling and appropriate grammatical concepts will be emphasized. A grade of 2.0 or better in ENG 055 is necessary to enter ENG 101.
 Prerequisite: Satisfactory placement test score or minimum grade 2.0 in English 050.
- ENG 100** Communication Skills (3 - 0) 3 Cr. Hrs.
 In addition to basic writing skills related to general communication and to specific work experience, this course may include the study of advertising, general semantics, oral communications, visual presentation, interviews, and the influence of modern technology in various career areas. Each student will be expected to do a number of writing, reading and speaking assignments. (ENG 100 is not intended as a prerequisite or a substitute for English 101 or any other English course.)
 Prerequisite: None.

- ENG 101 English Composition (3 - 0) 3 Cr. Hrs.
This course teaches students to prepare and write a number of clear, well-developed essays, using exposition and other rhetorical modes. Students submit essays which the instructor reads, evaluates and returns. This process assists students to build on strengths and eliminate weaknesses.
Prerequisite: Satisfactory high school English background or ENG 055 with a minimum grade of 2.0.
- ENG 102 English Composition (3 - 0) 3 Cr. Hrs.
Continuation of ENG 101. Includes practice in preparation and writing of a research paper.
Prerequisite: ENG 101.
- ENG 106 Business English (3 - 0) 3 Cr. Hrs.
Business English deals with a variety of written communications relating to business. In addition to a study of the psychology and planning of business documents, specific types of letters, reports and memos will be prepared and written. Methods of collecting, preparing and presenting data will also be studied.
Prerequisite: ENG 101, OIS 100 or consent of instructor.
- ENG 107 Introduction to Journalism (3 - 0) 3 Cr. Hrs.
Introductory survey in mass media - newspaper, magazines (consumer and small), radio, TV, advertising, and public relations; emphasis on newspapers and magazines - recognizing news and feature values, discovering audience, reporting, writing, planning content and format.
Prerequisite: ENG 101.
- ENG 110 Journalism Practice (1 - 0) 1 Cr. Hr. each
ENG 111 Working on the staff of the college newspaper
ENG 210 under the direction of the publication adviser, students
ENG 211 meet one scheduled hour each week to plan forthcoming issues. They spend an additional unscheduled one to two hours on alternate weeks to carry out staff assignments to prepare the paper for the press.
Prerequisite: ENG 107 concurrently or consent of instructor.
- ENG 116 Technical Writing (3 - 0) 3 Cr. Hrs.
Provides practical instruction in speaking, listening, and writing for business and industry. Focuses on writing memorandums and a variety of business letters. Gives detailed instruction for job hunting, resume writing, and successful participation in job interviews. Covers the entire writing procedure from single sentences of facts, inferences, and opinions to different types of supporting paragraph development and their inclusion in some of the more common short technical reports. Practical tips are given related to procedures for conducting reliable research in qualified technical sources, gathering and organizing findings, arriving at logical conclusions, and submitting sound recommendations. Gives specific instruction and practice in preparing tables, charts, graphs, drawings, and photographs that are usually used in technical communication.
Prerequisite: ENG 100, ENG 101 or consent of instructor.
- ENG 200 Introduction to Film (4 - 0) 4 Cr. Hrs.
The study of film in terms of how it accomplishes what it does, whether as simple entertainment, social comment or complex art. A look at the history, criticism, aesthetics and technique of film. Emphasis on viewing and discussing selected films.
Prerequisite: ENG 101.
- ENG 203 Children's Literature (3 - 0) 3 Cr. Hrs.
Survey of literature for children of elementary school age. Through reading, observation and research the student is able to establish standards of critical evaluation.
Prerequisite: ENG 102 or consent of instructor.
- ENG 205 Creative Writing (3 - 0) 3 Cr. Hrs.
Student creative writing may include work in poetry, short stories and drama. Some assignments will reflect student interests and abilities while others may encourage students to expand their skills and discover new topics. Class activities will include critical evaluation of student work in individual conferences and writing workshops.
Prerequisite: ENG 101 and/or consent of instructor.
- ENG 206 Creative Writing (3 - 0) 3 Cr. Hrs.
Student creative writing may include work in poetry, short stories and drama. Some assignments will reflect student interests and abilities while others may encourage students to expand their skills and discover new topics. Class activities will include critical evaluation of student work in individual conferences and writing workshops. The course may include work on individual writing projects.
Prerequisite: ENG 101, ENG 205 and/or consent of instructor.
- ENG 221 Advanced Composition (3 - 0) 3 Cr. Hrs.
This course provides theory and practice for students to develop their writing skills beyond what they can accomplish in English 101 and English 102. The course will emphasize a writing process approach, a variety of revision strategies, and standard research techniques. This course also trains Writing Fellows to tutor other students as they complete their writing assignments.
Prerequisite: ENG 102 and/or consent of instructor.
- ENG 243 Introduction to Literature: Short Fiction (3 - 0) 3 Cr. Hrs.
Reading and discussion of short fiction, especially fiction written since 1850. Designed to develop standards for critical evaluation and to increase understanding and appreciation of prose fiction.
Prerequisite: ENG 101. ENG 102 recommended.
- ENG 244 Introduction to Literature: Poetry (3 - 0) 3 Cr. Hrs.
Reading and discussion of poetry, especially that written since 1850. Designed to develop standards for critical evaluation and to increase appreciation for poetry.
Prerequisite: ENG 101. ENG 102 recommended.
- ENG 245 Introduction to Literature: Drama (3 - 0) 3 Cr. Hrs.
Reading and discussion of a number of plays, especially those written since 1850. Designed to develop standards for critical evaluation and increase understanding and appreciation of drama as a literary form.
Prerequisite: ENG 101. ENG 102 recommended.
- ENG 246 Introduction to Literature: Novel (3 - 0) 3 Cr. Hrs.
Reading and discussion of novels, especially those written since 1850. Designed to develop standards for critical evaluation and to increase understanding and appreciation of prose fiction.
Prerequisite: ENG 101. ENG 102 recommended.
- ENG 248 Introduction to Literature: Shakespeare (3 - 0) 3 Cr. Hrs.
Reading and discussion of selected Shakespearean works. Designed to develop standards for evaluation and increased understanding of one of Western Civilization's greatest playwrights.
Prerequisite: ENG 101. ENG 102 recommended.

- ENG 251 American Literature from Colonial Times to the Civil War (3 - 0) 3 Cr. Hrs.
Significant literary works that best illustrate the changing currents of thought and expression that dominated American life from colonial times to the Civil War.
Prerequisite: ENG 101. ENG 102 recommended.
- ENG 252 American Literature from the Late Nineteenth Century to the Present (3 - 0) 3 Cr. Hrs.
Continuation of ENG 251. Significant literary works that best illustrate the changing currents of thought and expression that have dominated American life from the Civil War to the present.
Prerequisite: ENG 101. ENG 102 recommended.
- ENG 280 The Nature of Language (3 - 0) 3 Cr. Hrs.
An investigation of the historical background and current status of the English language, including problems such as the changing nature of language dialect differences, origins of standards for "correctness" and attempts to describe the language grammatically.
Prerequisite: ENG 101 or consent of instructor.

ENVIRONMENTAL TECHNOLOGY

Associate Dean: Midge Carleton, MS
Instructors: Associate Professor Diane O'Connell, MS
Adjunct Faculty

- ENVR 107 Soil Mechanics (3 - 2) 4 Cr. Hrs.
This course provides an introduction to soil mechanics and foundations, and emphasizes practical applications that are supported by theory. The course concentrates on analytical techniques currently used by the environmental industry to understand the behavior of soils and to classify soils. Soil characteristics are explored by means of laboratory examination and testing techniques.
Prerequisite: A background in algebra, trigonometry and GEOG 212.
- ENVR 202 Environmental Microbiology (4 - 2) 5 Cr. Hrs.
Study of the basic principles of environmental microbiology, including the nutritional requirements of microbes and their metabolism. Emphasis will be on microbes of environmental significance in soil, water, and air. Processes used for water purification, sewage treatment and monitoring microbial quality will be discussed. Nutrient cycling in the soil by microbes quality will be discussed, including bioremediation. The course will include at least one field trip.
Prerequisite: BIOL 101, CHEM 111 and GEOG 212.
- ENVR 204 Introductory Surveying (3 - 0) 3 Cr. Hrs.
Introduction to field survey techniques and computer applications related to surveying. Comprehensive study of the techniques and procedures used to locate and measure features. Includes the use of surveying total station and data collector in the gathering of field data for planimetric and topographic maps.
Prerequisite: GEOG 212 and CIS 115.
- ENVR 206 Environmental Law and Regulations (3 - 0) 3 Cr. Hrs.
This course provides an introduction to both federal and state environmental laws and regulations. Review the historical context of United States environmental legislation. Provide an introduction to major environmental legislation, including Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA/SARA), Clean Water Act (CWA), Clean Air Act (CAA), and Toxic Substances Control Act (TSCA). Companion State of Michigan legislation and rules are included. Conclude with a discussion of environmental ethics.
Prerequisite: POLS 105 should be taken concurrent with ENVR 206 and GEOG 212.
- ENVR 211 Health and Safety Training for Handling Hazardous Materials (40-Hour OSHA Training) (3 - 0) 3 Cr. Hrs.
A health and safety training course for individuals who may be involved in the investigation, remediation and operation of hazardous waste sites. Topics include hazardous materials chemistry, toxicology, air monitoring instrumentation, air purifying respirators, self-contained breathing apparatus, protective clothing, decontamination, simulated hazardous materials response incidents, and problem sets. This course satisfies CFR Part 1910.120(e) under SARA.
Prerequisite: ENVR 206 and GEOG 212.
- ENVR 215 Environmental Seminar (1 - 0) 1 Cr. Hr.
This lecture course addresses current environmental issues, such as groundwater contamination, air pollution, acid rain, environmental health, and urban design. Environmental professionals and researchers provide guest lectures concerning current and emerging technologies and trends, such as electronic communication, geosynthetic properties and applications, and quality control in environmental technology. Students have the opportunity to learn about careers in the environmental field, and meet local environmental professionals.
Prerequisite: GEOG 212 and the completion of one year in the Environmental Technology program or consent of the instructor.
- ENVR 217 Environmental Hydrology (3 - 0) 3 Cr. Hrs.
Survey of water resources which includes a study of the occurrence, movement, and behavior of water in the hydrologic cycle. Discussions on the ways in which these resources can be contaminated and remediated. Includes a study of watershed management, which is a holistic, integrated method of managing all water resources located within a naturally occurring watershed. Data and hydrologic studies completed for the Rouge River Watershed provide a model for watershed management. The course offers demonstrations of hydrologic computer models and limited field experience.
Prerequisite: GEOG 130 or GEOG 133 and GEOG 212.
- ENVR 231 Field Co-op Experience (1 - 4) 5 Cr. Hrs.
The field co-op experience provides students with off-campus work experience in the environmental technology field. Students are employed as environmental technicians for engineering firms and government agencies. This work experience will allow students to build upon skills learned during the formal education of the Environmental Technology Program. Students will complete a one credit hour preparation class before field placement.
Prerequisite: Successful completion of two years of the Environmental Technology Program.



FIRE TECHNOLOGY

Associate Dean: Robert F. Pearce, MPA
 Instructors: Adjunct Faculty
 Program Coordinator: Clyde Rivard, State Certified I/C

FIRE 112 Firefighter 1 - Basic Fire Suppression (6 - 4) 10 Cr. Hrs.
 This course provides an introduction to basic fire suppression, prevention procedures and skill development. 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. FIRE 112 is for students who are currently employed by a Michigan Fire Marshal recognized fire department, are currently seeking employment, and/or are a volunteer in a recognized fire district. This course meets the State-mandated requirements for preparing students to take the exam for State certification for entry-level on-call or volunteer firefighters.

Prerequisite: Michigan State law mandates that persons taking this course must be at least 18 years of age and have a valid Michigan Driver's License.

FIRE 118 Firefighter 2 - Advanced Fire Suppression (5 - 3) 8 Cr. Hrs.
 FIRE 118 is the second of two courses which together make up the equivalent of the Basic Fire Academy and is offered for students who prefer to attend on a part-time basis. This course deals with advanced fire suppression techniques, including prevention procedures and skill development. This course is for students who are currently employed by a Michigan Fire Marshal recognized fire department, are currently seeking employment, and/or are a volunteer in a recognized fire district. FIRE 118 meets the State mandated requirements for preparing students to take the exam for State certification for entry-level career firefighters.

Prerequisite: FIRE 112. Michigan State law mandates that persons taking this course must be at least 18 years of age and have a valid Michigan Driver's License.

FIRE 123 Fire Academy (11 - 7) 18 Cr. Hrs.
 The Fire Academy combines FIRE 112 (Firefighter 1) and FIRE 118 (Firefighter 2), providing comprehensive training in fire suppression, prevention procedures and skill development. This course is for students who are currently employed by a Michigan Fire Marshal recognized fire department, are currently seeking employment, and/or are a volunteer in a recognized fire district. Students must be able to attend on a full-time basis. FIRE 123 meets the State-mandated requirements for preparing students who intend to become professional Michigan firefighters to take the State certification exam for entry-level career firefighters.

Prerequisite: Michigan State law mandates that persons taking this course must be at least 18 years of age and have a valid Michigan Driver's License.

FIRE 128 Firefighting Hydraulics & Water Supply (4 - 0) 4 Cr. Hrs.
 This course is a study of the principles of fluid in motion. More specifically, it concentrates on water and its use as a fire extinguishing agent. 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.
 Prerequisite: None.

FIRE 130 Firefighting Tactics and Strategy (3 - 0) 3 Cr. Hrs.
 This course examines new technology, firefighting techniques and improved equipment. Provides a guide for firefighters and fire officers who need to know methods for handling specific situations. Also covers general principles of firefighting, engine company operations, search and rescue, structure fires, and fire-related emergencies.
 Prerequisite: None. FIRE 112 recommended.

FIRE 135 Fire Protection Systems (3 - 0) 3 Cr. Hrs.
 This course is designed to provide the student with an understanding of the basic principles involved in the design and operation of existing suppression and detection systems found in most structures. Specific topics of discussion include: portable extinguishers, dry chemical systems, extinguishing foams, fire detection systems, smoke detection systems, and other related topics.
 Prerequisite: None.

FIRE 140 Special Topics (1 - 0) 1 Cr. Hr.
FIRE 141 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. 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
 Prerequisite: None.

FIRE 200 Fire and Arson Investigation (4 - 0) 4 Cr. Hrs.
 Designed to acquaint student with data on fire dynamics, explosions and fire behavior. Course is for students interested in learning fundamentals of collection, preservation and analysis of physical evidence. Also covers new laws and court decisions controlling investigator's access to scene and admission of evidence. Prepares students for on-scene investigation as well as in-service or promotional exams.
 Prerequisite: FIRE 112 or FIRE 123.

FIRE 205 Fire Department Organization and Administration (3 - 0) 3 Cr. Hrs.
 Designed to equip the student with knowledge to effectively tackle challenging management problems and deliver practical solutions for managing today's fire departments. Provides guidance on leadership skills: motivating and disciplining personnel, accepting cultural diversity and unity, managing human resources, the use of computer technology for information management and strategic planning and budgeting.
 Prerequisite: None.

- FIRE 207** Fire Company Officer (3 - 0) 3 Cr. Hrs.
It is essential that Fire Company Officers be well versed in the areas of management, leadership, and human relations. This course will examine the skills required to function as a Fire Company Officer. Students will cover both traditional and contemporary methods of supervision, planning, staffing, and training. The course objectives will parallel NFPA 1021, *Fire Officer Professional Qualifications*. Combined with the knowledge of essential fire fighting skills, this course provides students with the competencies required for a first-line fire company officer.
Prerequisite: FIRE 118 or FIRE 123.
- FIRE 210** Cultural Diversity for Public Safety (3 - 0) 3 Cr. Hrs.
An analysis of racial and ethnic diversity in the U.S. in relation to evolving social, economic and cultural factors. Various American minority cultures are studied with an emphasis on education, politics, religion and the resulting cultural effects. Sociological and psychological concepts and theories will be explored. The impact of the current wave of immigrants to the U.S. will be discussed and the incidents of hate crimes will be explored.
Prerequisite: None.

FRENCH

- Associate Dean: Jeanne Bonner, MSA
Instructors: Professor Roberta Holtzman, MA
Adjunct Faculty
- FR 101** Elementary French (4 - 0) 4 Cr. Hrs.
Fundamentals of pronunciation, basic grammar structure and essential vocabulary; particular emphasis placed on speaking and understanding French; practice in written French given by means of dictation and easy translation; required language laboratory assignments.
Prerequisite: None.
- FR 102** Elementary French (4 - 0) 4 Cr. Hrs.
Continuation of FR 101. Continued emphasis on the spoken language and reading of graded materials in French for comprehension without translation; extensive use of French in the classroom; required language laboratory assignments.
Prerequisite: One year of high school French or a grade of 2.0 or better in FR 101, or consent of instructor.
- FR 201** Intermediate French (4 - 0) 4 Cr. Hrs.
Continuation of FR 102. Review and application of essential principles of French grammar structure in training and 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; required language laboratory assignments.
Prerequisite: Two years of high school French or a grade of 2.0 or better in FR 102, or consent of instructor.
- FR 202** Intermediate French (4 - 0) 4 Cr. Hrs.
Continuation of FR 201. Emphasis on oral skill, conversation, and reading without translation; required language laboratory assignments.
Prerequisite: Three years of high school French or a grade of 2.0 or better in FR 201, or consent of instructor.

GEOGRAPHY

- Associate Dean: Midge Carleton, MS
Instructors: Associate Professor Diane O'Connell, MS
Adjunct Faculty
- GEOG 105** Earth Science for Elementary Teachers (3 - 2) 4 Cr. Hrs.
The course introduces earth science and integrates pedagogical methods appropriate for elementary teachers. The course will help prospective teachers create a resource base of knowledge and activities for teaching earth science and develop teaching strategies based on how children learn science. Included are lecture, peer teaching, selecting textbooks, demonstrations, and indoor and outdoor lesson plans.
Prerequisite: None.
- GEOG 130** Physical Geography (4 - 0) 4 Cr. Hrs.
This course is designed to introduce the student to the environment by examining meteorological, climatic, geologic, and geographic processes. The environment is divided into four spheres (atmosphere, hydrosphere, biosphere, lithosphere) for purposes of study; human impact in each sphere is emphasized. Students study earth patterns and distributions of soil, vegetation, climate, and water resources. The course includes study and use of maps, atlases, aerial photographs, and satellite imagery.
Prerequisite: None.
- GEOG 133** World Regional Geography (4 - 0) 4 Cr. Hrs.
World Regional Geography includes a systematic study of the world's geographic regions, including Europe, United States-Canada, Russia, Latin America, Southwest Asia, Southeast Asia, East Asia, Sub-Saharan Africa, and Australia-New Zealand. Geographic concepts, such as map reading and spatial analysis, are first introduced. Then, the world is classified into geographic regions using both physical and social criteria. Each region results from a unique interaction between the human societies and the physical and biological environment. The physical, cultural, political, and social features of each region are studied, along with any special regional concerns or problems.
Prerequisite: None.
- GEOG 212** Environmental Science (3-0) 3 Cr. Hrs.
This course offers a general background of a variety of environmental concerns to students who possess a wide range of interests. The course begins with a discussion of population, and the problems related to the current population explosion. Then, the focus shifts to a study of natural resources, including land, groundwater, surface water, and air quality. Land resources are examined, with special attention to soil erosion and deforestation. The groundwater is defined and areas susceptible to groundwater contamination are identified. The next issue is the overuse and misuse of surface waters. The course ends with a discussion of the waste management problems, including solid waste, hazardous waste, and low-level radioactive waste landfills. Other issues will be determined by class interests. This is a Science Course.
Prerequisite: None.

GEOLOGY

Associate Dean: Midge Carleton, MS
Instructors: Professor James Rexius, MS
Adjunct Faculty

- GEOL 120 Geology of Michigan (3 - 0) 3 Cr. Hrs.
The Geology of Michigan is a history of the geological evolution of the state. Emphasis is on the identification and description of the most important and popular geological features of Michigan and the formation of our important natural resources such as iron, copper, salt, oil and gas. Two field trips, one of which is three days in Michigan's western upper peninsula, are optional.
Prerequisite: None.
- GEOL 133 Physical Geology (3 - 3) 4 Cr. Hrs.
Physical Geology is the study of the materials composing the earth and the processes that act upon them. Topics such as rock formation, weathering and metamorphism as well as processes associated with volcanoes, earthquakes, plate tectonics, glaciers, groundwater and streams are presented. Identification of common minerals and rocks and the interpretation of topographic maps are done in the lab. A field trip is optional.
Prerequisite: None.
- GEOL 134 Historical Geology (3 - 3) 4 Cr. Hrs.
Historic Geology is the study of the history of the earth. Geologic principles and advanced plate tectonic concepts are applied to the interpretation of earth history from its early beginnings to the present time. The development of the North American continent through geologic time is presented as a case history. Geologic dating methods, interpretation of sedimentary rocks, structures, fossils and geologic maps are studied during lab exercises. One all-day field trip and a field project are required.
Prerequisite: GEOL 133.
- GEOL 140 Regional Geology (2 - 0) 2 Cr. Hrs. each
GEOL 141 (Spring and/or Summer Sessions only)
GEOL 142 A different selected geologic region of interest in
GEOL 143 the United States or Canada will be studied each
GEOL 144 spring or summer in detail. A field trip to each area
GEOL 145 can be taken to observe first hand the rocks, fossils,
GEOL 146 structures and significant depositional and erosional
GEOL 147 processes at work in that particular region. Areas
GEOL 148 to be considered include the Canadian shore of Lake
GEOL 149 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.
Prerequisite: GEOL 133.
- GEOL 237 Mineralogy (3 - 2) 4 Cr. Hrs.
Mineralogy teaches the basics of crystal formation, crystal symmetry and crystal chemistry of the most important rock forming and economic minerals of the earth's crust. Also included is the formation of minerals and mineral occurrences and associations. Laboratory periods concentrate on the methods used in the identification of about 100 minerals.
Prerequisite: GEOL 133.

GERMAN

Associate Dean: Jeanne Bonner, MSA
Instructors: Adjunct Faculty

- GER 103 Elementary German (4 - 0) 4 Cr. Hrs.
Fundamentals of pronunciation, basic grammar structure, and essential vocabulary, particular emphasis placed on speaking and understanding German; practice in written German given by means of dictation and easy translation. Workbook exercises required.
Prerequisite: None.
- GER 104 Elementary German for College Students (4 - 0) 4 Cr. Hrs.
Continuation of German 103 with emphasis on business culture and introductory terminology, focus on formal address. Continued emphasis on listening, speaking, reading of graded materials, writing and understanding German through extensive use in the classroom as well as vocabulary extension and sentence structure/composition. Workbook exercises required.
Prerequisite: Minimum one year of high school German, or a grade of 2.0 or better in GER 103, or with consent of instructor.
- GER 201 College German with Business Terminology (4-0) 4 Cr. Hrs.
Continuation of GER 104. Review and application of essential principles of German structure and basic application of Business German terminology. Continued emphasis on listening, speaking, reading of selected business and grammar sections. Understanding advanced grammatical structures through writing and speaking in the classroom. Workbook exercises required.
Prerequisite: Two years of high school German, or a grade of 2.0 or better in GER 104, or with consent of instructor.
- GER 202 Advanced College German with Business Terminology (4 - 0) 4 Cr. Hrs.
Continuation of GER 201. Review and application of essential principles of German structure and more elaborate application of Business German terminology. Continued emphasis on listening, speaking, reading of selected business sections. Understanding advanced grammatical structures through writing and speaking in the classroom. Workbook exercises required.
Prerequisite: Three years of high school German, or a grade of 2.0 or better in GER 201, or with consent of instructor.

HEALTH INFORMATION TECHNOLOGY

Associate Dean: Robert F. Pearce, MPA
 Coordinator/Instructor: Professor Patricia Rubio, MSA
 Instructors: Associate Professor Jody Scheller, MS
 Adjunct Faculty

- HIT 104 Medical Terminology (4 - 0) 4 Cr. Hrs.
 Fundamentals of the language of the medical profession. Definitions, pronunciations, spelling and abbreviations of anatomical, symptomatic, diagnostic and operative terms pertaining to each anatomical system of the body. Medical terms will also include those pertaining to pharmacy, clinical laboratory, radiology and pathology.
 Prerequisite: None.
- HIT 109 Principles of Health Information Management 1 (2 - 2) 3 Cr. Hrs.
 The medical record profession. The medical record department, its functions and how it relates to other departments. The medical record and its content and various agency requirements affecting it. Filing and numbering systems and record retention. Laboratory practices of basic functions.
 Prerequisite: None.
- HIT 909 LAB 0 Cr. Hrs. (Concurrent with HIT 109)
 No added cost; allows for personal attention.
- HIT 111 ICD-9-CM Classification (2 - 2) 3 Cr. Hrs.
 Principles of coding and indexing used in hospitals. Diseases and operations coded according to International Classification of Diseases Ninth Revision, Clinical Modification (ICD-9-CM). Course includes coding practice.
 Prerequisite: HIT 104, HIT 109, and BIOL 235 or consent of department.
- HIT 153 Health Record Practicum (0 - 4) 2 Cr. Hrs.
 Application of technical skills in the medical record laboratory. Performance of procedures such as assembly, quantitative analysis, and word processing. An emphasis will be placed upon abstracting, retrieval, analysis, and display of data, using the medical records and computer reports in the medical record laboratory. Usually offered for eight weeks.
 Prerequisite: HIT 104 and HIT 109.
 Corequisite: HIT 155.
- HIT 155 Clinical Affiliation 1 (0 - 4) 1 Cr. Hr.
 Provides practical experience for the student in a medical record department under the supervision of a qualified medical record practitioner. The student will have the opportunity to observe the medical record practitioner in health care facilities other than the hospital. The student will observe, perform and report on the functions necessary to maintain a health information service. Usually offered for seven or eight weeks.
 Prerequisite: HIT 104, HIT 109, BIOL 235 and consent of department.
 Corequisite: HIT 153.
- HIT 210 Principles of Health Information Management 2 (2 - 2) 3 Cr. Hrs.
 Methods for compiling statistics for hospital administration and medical staff. Reporting methods of vital statistics. Medically related data abstraction for display. Cancer registry requirements. Quality assurance, federal and nongovernmental requirements.
 Prerequisite: HIT 104, HIT 111, and HIT 153.

- HIT 213 Health Information Technology Seminar (1 - 0) 1 Cr. Hr.
 Role of the health information technician in providing in-service education in the medical record department, ancillary departments and other health care facilities, preparation of the student for the national accreditation examination. The role of the American Health Information Management Association and the impact upon the health care field and the health information professional.
 Prerequisite: HIT 210, HIT 214, HIT 216, and HIT 256.
- HIT 214 Quality Assurance (2 - 2) 3 Cr. Hrs.
 Introduces student to the theory and application of patient care evaluation through documented health information. A study of quality assurance programs in health care facilities according to JCAHO and federal requirements. Includes utilization review, medical care evaluation, professional standard review organizations and peer review organizations. Emphasizes the knowledge and skills of the health information professional in a quality assurance program. Laboratory practice in performing functions of a medical record technician.
 Prerequisite: HIT 104, HIT 111, HIT 155 and HIT 271.
- HIT 215 Current Procedural Terminology (CPT) Coding (2 - 0) 2 Cr. Hrs.
 This course will emphasize accurate coding of diagnoses and procedures within the health care facility. It will describe how diagnosis and procedure data in coded form are used for research studies, reimbursement, quality assurance, utilization review and other purposes. The student will receive practice in applying coding principles, conventions, and sequencing of diagnoses and procedures using the medical record.
 Prerequisite: HIT 111, HIT 153, HIT 155, HIT 271, and BIOL 235.
- HIT 216 Health Care Delivery Systems (2 - 0) 2 Cr. Hrs.
 A comprehensive review of the health care industry. The course will incorporate trends and changes related to health care facilities such as acute care hospitals, specialty hospitals, nursing homes, health maintenance organizations, hospice and home health care. The course will also deal with the impact and use of computers in the delivery and documentation of health care and the role of the health information professional in response to health care delivery systems.
 Prerequisite: HIT 104, HIT 111, and HIT 153.
- HIT 219 Organization and Management (1 - 2) 2 Cr. Hrs.
 Hospital and medical record departmental organization. Emphasis will be upon management theory for the health information professional. Individual and group projects permit the student to participate in activities related to the management of the medical record department.
 Prerequisite: HIT 210, HIT 214, HIT 216, and HIT 256.
- HIT 220 Legal Aspects of Health Information (3 - 0) 3 Cr. Hrs.
 Legal concepts for the health care field as they pertain to medical records and the release of information. A review of consents, authorizations, and release forms. An overview of laws and regulations that affect medical records and hospital risk management.
 Prerequisite: HIT 210, HIT 214, HIT 216, and HIT 256.



- HIT 225 Advanced Clinical Topics for ICD-9-CM Classification (2 - 0) 2 Cr. Hrs.
This course is designed to improve coding skills using CPT-4 ICD-9-CM and MUPC. Students will apply coding guidelines for reimbursement of physicians' offices, HMOs, clinics and other ambulatory care settings. Current coding issues will be discussed as they apply to inpatient hospital reimbursement.
Prerequisite: HIT 215, HIT 256, and BIOL 235.
- HIT 256 Clinical Affiliation 2 (0 - 8) 2 Cr. Hrs.
Provides practical experience for the student in a medical record department under the supervision of a qualified medical record practitioner. The student will have the opportunity to observe the medical record practitioner in health care facilities other than the hospital. The student will observe, perform and report on the functions necessary to maintain a health information service.
Prerequisite: HIT 111, HIT 153, HIT 155 and HIT 271.
- HIT 258 Clinical Affiliation 3 (0 - 8) 2 Cr. Hrs.
Provides practical experience for the student in a medical record department under the supervision of a qualified health information practitioner. The student will have the opportunity to observe the health information practitioner in health care facilities other than the hospital. The student will observe, perform and report on the functions necessary to maintain a health information service.
Prerequisite: HIT 210, HIT 214, HIT 216, HIT 256 and consent of department.
- HIT 271 Human Diseases (4 - 0) 4 Cr. Hrs.
This course is designed to build on the knowledge of anatomy and physiology, and medical terminology. It will introduce the student to the disease processes and their effect on the individual body systems. The student will develop an understanding of the types of treatments for diseases which may include pharmacology, surgery and other therapies.
Prerequisites: BIOL 105 or BIOL 235 or BIOL 237 and BIOL 238 and HIT 104.

HISTORY

Associate Dean: Jeanne Bonner, MSA
Instructors: Professor Robert Briggs, MAT
Professor Evan Garrett, MA
Instructor Alexander Thomson, MA
Adjunct Faculty

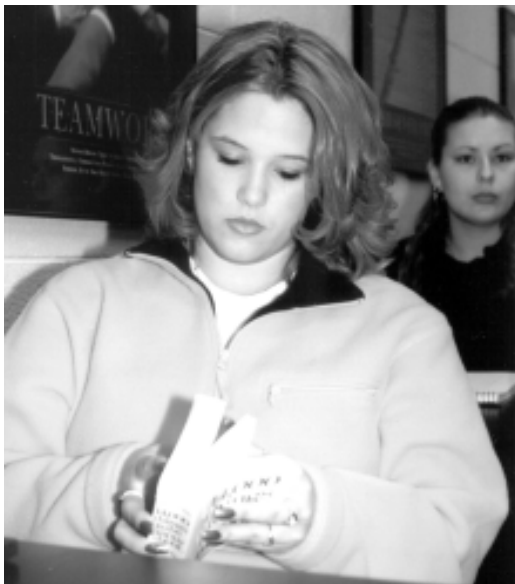
- HIST 134 Ancient World (4 - 0) 4 Cr. Hrs.
A survey of prehistoric and ancient times: origins of human nature and culture; early gathering-hunting and planting-herding societies; origins of civilization in the Middle East, India, China, the Mediterranean and elsewhere; civilized-barbarian interaction and the rise of early Old World empires; rise of classical civilizations, especially Greece and Rome; rise of the higher religions, especially the Judaeo-Christian traditions; decline of classical civilizations, with emphasis on the fall of Rome and the rise of medieval Europe, Byzantium and Islam.
Prerequisite: None.
- HIST 137 Early Modern World (4 - 0) 4 Cr. Hrs.
A survey of the balance of world civilizations in medieval and early modern times: American and African peripheral regions; major civilizations of Asia and Europe in the Middle Ages; 14th-16th century crisis and renewal; expansion of Europe in the age of Renaissance, Reformation and discovery; rise of the Great-Power system; the scientific revolution and Enlightenment; the democratic and industrial revolutions; emergence of modern ideologies and nations; climax of European expansion in the age of imperialism, to the late 19th century.
Prerequisite: None.
- HIST 138 Contemporary World (3 - 0) 3 Cr. Hrs.
A survey of the main themes in the history of the world in the last hundred years: the Eurocentric world order of 1900; World War I, communist revolution and fascist counterrevolution; the settlements of the 1920s and the renewal of world crisis in the 1930s; World War II and the onset of the Cold War in the 1940s-1960s; erosion and collapse of the postwar order in the 1970s-1980s; the contemporary world order in the historical context.
Prerequisite: None.
- HIST 141 History of Michigan and the Great Lakes (3 - 0) 3 Cr. Hrs.
A general survey of the historical development of Michigan from the primitive wilderness to the present; growth of certain political, economic, social and cultural institutions which contribute to understanding Michigan and the Great Lakes area today; emphasis on relating the history of the state to that of both the area and the nation.
Prerequisite: None.
- HIST 151 Early America (U.S. History) (3 - 0) 3 Cr. Hrs.
A survey of the origins of American civilization: Native American societies in pre-Colombian and colonial times; European discovery, exploration, conquest and settlement of the Americas; Iberian, French and African elements in the early Americas; 17th and 18th century English colonial development; the Revolutionary era and the founding of the U.S.; Federalist and Jeffersonian America, to the early 19th century.
Prerequisite: None.

- HIST 152 19th Century America (U.S. History) (3 - 0) 3 Cr. Hrs.
A survey of the expansion, crisis and renewal of the U.S. in the 19th century: demographic, economic, social and cultural change in Jacksonian America; the North and antebellum reform movements; the South and slavery; the West and territorial conquest and settlement; sectional struggle, the Civil War and Reconstruction; emergence of modern, urban, industrial America, to the beginning of the 20th century.
Prerequisite: None.
- HIST 153 Contemporary America (U.S. History) (3 - 0) 3 Cr. Hrs.
A survey of American civilization within the last hundred years: turn-of-the-century growth and crisis; the Progressive Era and World War I; the 1920s, the Great Depression and the New Deal; World War II and the emergence of the United States as a superpower; affluence, consensus and confrontation in the 1950s-1960s; malaise, drift and fragmentation in the 1970s-1980s; the U.S. in the world of the late 20th century.
Prerequisite: None.
- HIST 230 U.S. Business History (1865-Present) (3 - 0) 3 Cr. Hrs.
An examination of major business and economic development in the U.S. from the Civil War to the present. Emphasis will be placed on the ideas, forces and personalities in the ever changing role of business and economics and their impact on the nation and its citizens. Recommended for students majoring in business, economics and history.
Prerequisite: None.

HUMAN DEVELOPMENT SERVICES

Director: John Titus, MS
Counselor: Ronald Rogowski, MA

- HDS 110 Career Decision Making (2 - 0) 2 Cr. Hrs.
This class assists the student in examining the components of career/job choice. The focus is on career awareness, personal awareness, and education/training awareness as they relate to the process of occupational choice. Self-assessment instruments will help students identify tentative career options, decision-making strategies, obstacles and planning skills.
Prerequisite: None.



HUMANITIES

Associate Dean: Jeanne Bonner, MSA
Instructors: Assistant Professor James Nissen, DMA
Adjunct Faculty

- HUM 106 Introduction to Art and Music (1 - 0) 1 Cr. Hr.
This course provides an overview of music and art including major composers, painters, sculptors and styles. The focus will be on the basic elements underlying the visual and aural arts. The course also prepares students to begin to develop an understanding of how to perceive music and art, both aesthetically and historically. Outside attendance at one live concert and one visual media exhibition is required. No prior technical knowledge is needed.
Prerequisite: None.
- HUM 150 World Masterpieces (3 - 0) 3 Cr. Hrs.
This course serves as an introduction to some of the great works of art and music in the western world, from Greek civilization to the present. The course will cover the major periods/styles in art and music history: Greek, Roman/Early Christian, Romanesque, Gothic, Renaissance, Baroque, Classical, Romantic, Modern (1900-1945) and Post-Modern (1945-present). Art and music masterpieces to be studied will be selected from the main repertoire of significant works of the western world. The course will also cover fundamentals of integrative art and music appreciation. A background in art and/or music is not required.
Prerequisite: None.
- HUM 190 Individual Humanism: An Honors Colloquium (3 - 0) 3 Cr. Hrs.
A required introduction to the Schoolcraft Scholars honors program, this colloquium studies the individual and the community through multiple disciplines. Topics of the colloquium may include, but are not limited to, the human condition; individual renaissance and enlightenment; the role of individuals in a society of change, transition and revolution; the unanswered question; and taking an active role on the social stage. Additionally, students in this course collaborate, practice critical thinking, and explore both community issues and community-based organizations.
Prerequisite: Acceptance to the Schoolcraft Scholars honors program.
- HUM 201 Art and Music in Western Civilization; Field Study - England (3 - 0) 3 Cr. Hrs.
Field Study; A humanistic study of music and art in concentrated form. Includes art forms and functional styles of historical periods as they relate to universal principles. The course will include studies in English history, culture and geography. The course will conclude with a ten-day trip to London, England, with day trips to Cambridge, Canterbury, Bath, Stonehenge, Ely, and other satellite locations. The tour will include visits in the National Gallery and the British Museum as well as other museums, and will include visits to several palaces, castles, cathedrals, and performing arts centers to facilitate a live, firsthand encounter with English arts and culture.
Prerequisite: HUM 106 or HUM 150 or consent of Instructor.

- HUM 203** Art and Music in Western Civilization; Field Study - Italy (3 - 0) 3 Cr. Hrs.
This course will serve as an in-depth look at the history, culture and people of Italy, with specific concentration on Roman art, architecture and civilization, and the early Renaissance Florentine art and music masterworks. The course will include studies in Italian history, culture, geography and language. Basic Italian language skills will be taught to facilitate the rigors of tourism in a foreign country. The course will culminate in a 12-day tour to Italy and will include stays in Rome, Venice and Florence, with day trips to satellite cities such as Sienna, Padua and Ravenna. The tour will include visits to the Colosseum, the Pantheon, St. Peter's and the Vatican Museum in Rome, the Florence cathedral, St. Mark's in Venice, as well as several museums and performing arts centers to facilitate a live, firsthand encounter with Italian arts and culture.
Prerequisite: HUM 106 or HUM 150 or consent of instructor.
- HUM 204** Art and Music in Western Civilization; Field Study - Spain (3 - 0) 3 Cr. Hrs.
This course will serve as an in-depth look at the history, culture and people of Spain, with specific concentration on painting, architecture, and music of the Spanish masters from the Renaissance to the present. The course will include studies in Spanish history, culture, geography and language. Basic Spanish language skills will be taught to facilitate the rigors of tourism in a foreign country. The course will conclude with a ten-day trip to Madrid, Spain, with day trips to satellite cities such as Segovia, Toledo, Aranjuez, and El Escorial. The tour will include visits to the Prado Museum and the Museum of Contemporary Art, as well as other museums, and will include visits to several palaces, castles, cathedrals, and performing arts centers to facilitate a live, firsthand encounter with Spanish arts and culture.
Prerequisite: HUM 106 or HUM 150 or consent of instructor.
- HUM 210** The Art of Being Human (3 - 0) 3 Cr. Hrs.
Surveys art, drama, music, literature, and philosophy. Each art form is examined from four perspectives: historical context, elements of the art, form/meaning, and criticism/evaluation.
Prerequisite: None.
- HUM 215** Humanities Through the Arts (3 - 0) 3 Cr. Hrs.
This course represents an exploratory approach to the humanities that focuses on the special role of the arts. The relation of the humanities to values is central to the purpose of the course. This approach provides a self-contained program for studying values as revealed in the arts.
Prerequisite: None.
- HUM 231** Humanities in Western Culture - Antiquity through the Renaissance (3 - 0) 3 Cr. Hrs.
An introduction to the Integrated Humanities. Culture has sometimes been defined as that which remains after the civilization has vanished. What is left behind amounts to much more than just artifacts; we are left with a legacy of the humanistic spirit. This course takes an in-depth look at culture, civilization, values and qualities inherent in Western art, architecture, music, literature and philosophy. It is also a study in Western thought and its resultant social and political institutions. The first of two-semester sequence, this course will cover Ancient River-Valley, Greek, and Roman civilizations, the Middle Ages, and the Renaissance.
Prerequisite: HUM 106 or HUM 150 or consent of instructor.

- HUM 232** Humanities in Western Culture - Baroque to the Present (3 - 0) 3 Cr. Hrs.
An introduction to the Integrated Humanities. Culture has sometimes been defined as that which remains after the civilization has vanished. What is left behind amounts to much more than just artifacts; we are left with a legacy of the humanistic spirit. This course takes an in-depth look at culture, civilization, values and qualities inherent in Western art, architecture, music, literature and philosophy. It is also a study in Western thought and its resultant social and political institutions. The second of two-semester sequence, this course will cover Baroque, Classical and Romantic periods, as well as the major historical, philosophical, and artistic "isms" of the modern and post-modern Western world.
Prerequisite: HUM 106 or HUM 150 or consent of instructor.

INTERNATIONAL EDUCATION

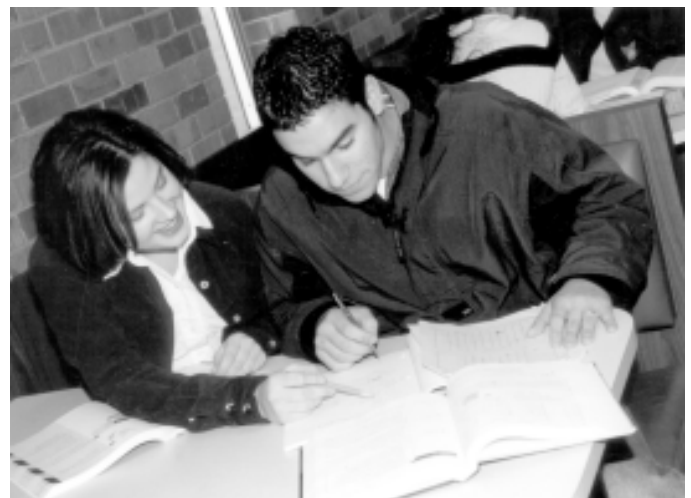
Associate Dean: Midge Carleton, MS
Instructor: Professor Arthur Lindenberg, MFA

- INTD 201** The French Experience (3 - 0) 3 Cr. Hrs.
This course provides students with an introduction to modern France. The class will cover modern civilization, history, art, literature and language. Special emphasis will be placed on the American expatriate experience. The highlight of the course will be a two-week trip to Paris, France and environs with optional excursions to surrounding areas.
Prerequisite: None.

LEARNING RESOURCES

Associate Dean: Jeanne Bonner, MSA
Instructor: Associate Professor Roy Nuffer, MSLS

- LR 110** Electronic Research (1 - 0) 1 Cr. Hr.
This course is a basic introduction to the conduct of research. To assist them in completing their class assignments, research and term papers, students will learn to use electronic catalogs, databases, and the Internet effectively, with traditional search techniques extrapolated into the increasingly electronic environment.
Prerequisite: None.



LASER TECHNOLOGY

Associate Dean: Fernon P. Feenstra, EdS
Instructors: Professor James Kramer, MS
Adjunct Faculty

- LASR 103** Laser Concepts (4 - 0) 4 Cr. Hrs.
A basic course designed for laser technicians which covers laser operation and the technical principles and equations needed to understand them and modify their output. It also deals with optical system construction, including lenses, mirrors, prisms, optical flats, etalons, beam expanders, collimators, optical tables, optical supports, and photographic components. Associated laboratory experiments will allow the technician to get "hands-on" experience with the setup, operation and analysis of laser/optic systems.
Prerequisite: One year of high school algebra.
- LASR 104** Laser Optics and Components 1 (5 - 0) 5 Cr. Hrs.
This course applies graphical and mathematical techniques to the reflection/refraction of light at typical optical interfaces. The student analyzes and uses optical components typically found in geometrical optics. Topics include ray tracing, imaging with lenses, mirrors, prisms, windows optical flats, etalons, beam expanders, collimators, optical tables, optical supports, optical systems, and photographic components and supplies. Associated laboratory stresses hands-on experience with setup, operation and analysis of typical optical systems.
Prerequisite: Two years of high school algebra.
- LASR 232** Laser Systems and Applications 1 (4 - 0) 4 Cr. Hrs.
A comprehensive examination of ion lasers, molecular lasers and solid-state lasers, with particular attention given to argon ion CO₂ gaseous and Nd: YAG laser systems. Considers typical power sources for all lasers and flash lamps and power supplies for pulsed laser systems. Treats applications of the ion and CO₂ laser systems to welding, cutting and drilling. Laboratory experiments stress hands-on experience with operation, troubleshooting and evaluations of current laser systems and power sources.
Prerequisite: LASR 103.

MANUFACTURING

Associate Dean: Fernon P. Feenstra, EdS
Instructors: Adjunct Faculty

- MFG 102** Basic Machining, Measurements and Manufacturing (2 - 4) 3 Cr. Hrs.
Fundamental manufacturing processes. This course will teach fundamentals only, not machine operator skills. Particular emphasis will be on machines, tools and measurements to produce an end product.
Prerequisite: None.
- MFG 103** Manufacturing Theory and Machine Operation (2 - 4) 3 Cr. Hrs.
Operation of the tool room lathe, horizontal mill, vertical mill, surface grinder, shaper and other machine tools, tool room and mass production procedures.
Prerequisite: MFG 102.
- MFG 243** Manufacturing Systems Analysis (3 - 0) 3 Cr. Hrs.
Principles of plant layout, process and flow charts, tools and aids for effective plant layout. Materials handling equipment, systems, and procedures and their relationship to production control.
Prerequisite: MFG 102.



MATHEMATICS

Associate Dean: Midge Carleton, MS
 Instructors: Professor Edward Kavanaugh, MA
 Professor Rheta Rubenstein, PhD
 Professor Randy Schwartz, MA
 Professor Janina Udrys, MA
 Professor Larry Williams, MA
 Associate Professor Linda Balfour, MA
 Associate Professor Lois Bearden, MA
 Associate Professor Sandra Kerr, MA
 Assistant Professor Janet Arsno, 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 112: A scientific calculator is required. (If continuing in mathematics, a TI-83 is recommended.)

MATH 119, 128 through 151: TI-83 is required.

MATH 122, 230 and 240: TI-83 is recommended.

MATH 252: TI-86 is required.

In no math course are those devices with computer algebra systems, such as the TI-92, permitted on exams or other graded work. For more details you may wish to consult your instructor.

For appropriate sequence of math courses, consult with a member of the Math or Counseling Department, or refer to the Mathematics Course Sequence Chart.

- MATH 045 Basic Mathematics (4 - 0) 4 Cr. Hrs.
 The fundamental operations with whole numbers, fractions, decimals, percentages, exponents and square roots.
 Prerequisite: None.
- MATH 047 Prealgebra (3 - 0) 3 Cr. Hrs.
 This course is intended for the student who is competent in arithmetic. Topics include an introduction to variables, signed numbers, and algebraic expressions; a review of the arithmetic operations on fractions, decimals and percents; solving equations and applications; ratio and proportions; and applications using simple geometry measurement formulas.
 Prerequisite: A grade of 2.0 or better in MATH 045 or equivalent.
- MATH 051 Beginning Algebra (5 - 0) 5 Cr. Hrs.
 Real number system, fundamental operations with real numbers, graphing, linear equations and systems, factoring, fractions, exponents, radicals, quadratic equations and applications.
 Prerequisite: A grade of 3.0 or better in MATH 045 or a grade of 2.0 or better in MATH 047 or equivalent.
- MATH 055 Plane Geometry (3 - 0) 3 Cr. Hrs.
 Basic elements of geometry including deductive reasoning and formal proofs; elementary construction with straightedge and compass.
 Prerequisite: A grade of 2.0 or better in MATH 051 or equivalent.

- MATH 105 Mathematics for Elementary Teachers (4 - 0) 4 Cr. Hrs.
 Designed for students who plan to enter elementary teaching, this course will cover sets, the real number system, relations and functions.
 Prerequisite: A grade of 2.0 in MATH 051 or equivalent.
- MATH 110 Applications: Utility of Math (3 - 0) 3 Cr. Hrs.
 This course is intended for students who do not wish to pursue the study of mathematics by following the standard sequence of courses, but who need to develop some competency in mathematics for an Associate of Arts degree. This course includes the practical application of mathematics. Topics include managing money, interest, installment buying, credit cards, inflation, loans, contests, surveys, advertising and computers.
 Prerequisite: A grade of 2.0 or better in Math 045 or equivalent.
- MATH 112 Intermediate Algebra (5 - 0) 5 Cr. Hrs.
 Continuation of MATH 051. Review of fundamental operations, factoring, fractions, exponents, linear and quadratic equations, absolute values and inequalities, logarithmic and exponential functions, systems of equations and applications.
 Prerequisite: A grade of 2.0 or better in MATH 051 and MATH 055 or equivalent.
- MATH 119 Trigonometry (3 - 0) 3 Cr. Hrs.
NOTE: Business and social science majors should take MATH 128 instead of MATH 119.
 Trigonometric functions and their graphs, identities, equations, and inverse functions, solutions of right and oblique triangles.
 Prerequisite: A grade of 2.0 or better in MATH 112 or equivalent.
- MATH 122 Elementary Statistics (4 - 0) 4 Cr. Hrs.
NOTE: The Math department recommends that business and social science majors take MATH 122 following MATH 135.
 Introduction to statistics, statistical descriptions, frequency distributions, possibilities and probabilities, probability distributions, sampling and sampling distributions; testing hypotheses based on measurements, count data, and paired data, nonparametric tests.
 Prerequisite: A grade of 2.0 or better in MATH 112 or equivalent.
- MATH 128 Precalculus (without Trigonometry) (4 - 0) 4 Cr. Hrs.
NOTE: Math 128 is recommended for business and social science majors.
 The function concept, polynomial, rational, exponential, and logarithmic functions, curve sketching, systems of linear equations and inequalities, graphical solutions and business applications.
 Prerequisite: A grade of 2.0 or better in MATH 055 and MATH 112 or equivalent. The combination of MATH 119 and MATH 128 is not comparable to MATH 129.
- MATH 129 Precalculus (with Trigonometry) (5 - 0) 5 Cr. Hrs.
NOTE: MATH 129 is recommended for engineering, science and math majors.
 The function concept, polynomial, rational, exponential, logarithmic, rapid review of trigonometric and inverse trigonometric functions, solving equations and systems of equations, curve sketching, complex numbers, coordinate geometry, conic sections. Prevailing theme is applications and graphical solutions.
 Prerequisite: A grade of 2.0 or better in MATH 112 and MATH 119 or equivalent.

- MATH 135 Finite Mathematics (4 - 0) 4 Cr. Hrs.
NOTE: MATH 135 is oriented to business and social science majors.
 Matrices and their applications to linear equations and linear programming, the simplex method, elementary probability, mathematics of finance.
 Prerequisite: A grade of 2.0 or better in MATH 128 or equivalent.
- MATH 145 Calculus for Business and Social Science (4 - 0) 4 Cr. Hrs.
 Differentiation of algebraic, exponential and logarithmic functions, curve sketching, optimization, constrained optimization, integration, introduction to functions of several variables, and applications.
 Prerequisite: A grade of 2.0 or better in MATH 128 or equivalent.
- MATH 150 Calculus with Analytic Geometry 1 (5 - 0) 5 Cr. Hrs.
NOTE: Oriented to engineering, science, and mathematics majors. (A course oriented to business and social science majors, and others who desire a one-semester survey of calculus, is provided by MATH 145 as an alternative to MATH 150.)
 Limits and continuity, derivatives and integrals of algebraic and some trigonometric functions, curve sketching and applications.
 Prerequisite: A grade of 2.0 or better in MATH 129 or equivalent.
- MATH 151 Calculus with Analytic Geometry 2 (5 - 0) 5 Cr. Hrs.
NOTE: MATH 151 may be taken concurrently with MATH 230.
 Derivatives and integrals of transcendental functions, techniques of integration, polar coordinates, rotated conics, indeterminate forms, improper integrals, infinite series and applications.
 Prerequisite: A grade of 2.0 or better in MATH 150 or equivalent.
- MATH 211 Computer Programming - FORTRAN 77 (2 - 1) 3 Cr. Hrs.
 Programming in FORTRAN 77 on a computing system. Structured problem-solving, control structures, arrays, subprograms, character strings, and file-handling. Writing and debugging of programs for engineering and scientific problems.
 Prerequisite: A grade of 2.0 or better in MATH 129 or equivalent.
- MATH 230 Linear Algebra (4 - 0) 4 Cr. Hrs.
 Systems of linear equations, matrices, determinants, Euclidean vector spaces, general vector spaces, inner product spaces, eigenvalues and eigenvectors, diagonalization, linear transformations, and applications.
 Prerequisite: A grade of 2.0 or better in MATH 150. MATH 230 may be taken concurrently with MATH 151.
- MATH 240 Calculus with Analytic Geometry 3 (5 - 0) 5 Cr. Hrs.
 Vectors in the plane, vectors in three-space, solid analytic geometry, partial derivatives, line integration, multiple integrals and applications.
 Prerequisite: A grade of 2.0 or better in MATH 151 or equivalent.
- MATH 252 Differential Equations (5 - 0) 5 Cr. Hrs.
 First order differential equations, second order linear equations, series solutions of second order linear equations, higher order linear equations, the Laplace transform, systems of first order linear equations, numerical methods and qualitative theory of differential equations.
 Prerequisite: A grade of 2.0 or better in MATH 211 and MATH 240 or equivalent. While not a prerequisite, the Math Department recommends taking MATH 230 before electing MATH 252.

MEDICAL ASSISTING

Associate Dean: Robert F. Pearce, MPA
 Coordinator: Patricia Rubio, MSA
 Instructor: Adjunct Faculty

- MA 110 Phlebotomy (4 - 0) 4 Cr. Hrs.
 This course teaches basic technical skills necessary for a phlebotomist to draw blood in various health care settings such as hospital labs, doctors' offices and clinics. Proper procedures are stressed for the safe collection and handling of clinical specimens obtained by venipuncture or capillary puncture from adults, children and infants. This course also defines the role of the phlebotomist in the health care setting..
 Prerequisite: BIOL 105, HIT 104. Verification of Hepatitis B form submitted to Health Services.
- MA 134 Medical Insurance Coding (3 - 0) 3 Cr. Hrs.
 Introduces the student to insurance coding guidelines developed for use with the International Classification of Diseases, (ICD-9-CM), Current Procedural Terminology, (CPT-4) and Health Care Financing Administration Common Procedure Coding System, (HCPCS). The course is designed to develop coding skills to record the services and procedures that are provided for the patient. The importance of accurate coding will be discussed as it is an essential part of reimbursement.
 Corequisite: HIT 104.
- MA 140 Medical Office Procedures (3 - 0) 3 Cr. Hrs.
 This course introduces the student to the types of medical office practice, telephone procedures, specifics of appointment making, filing, office organization, insurance (government and private), public relations, mailing, travel arrangements and job applications of relevance to the medical profession.
 Prerequisite: None. Typing proficiency is required.
- MA 155 Medical Insurance Billing (3 - 0) 3 Cr. Hrs.
 Introduces student to various types of medical insurance; Blue Cross/Blue Shield, Medicare, Medicaid, Champus and Worker's Compensation and other third-party payers; teaches students to perform the tasks necessary to process claim forms for each type of medical insurance.
 Prerequisite: MA 134 and HIT 104.
- MA 174 Medical Laboratory Techniques (4 - 0) 4 Cr. Hrs.
 This course will provide the opportunity for the student to practice the techniques for performing laboratory procedures. The student will practice preparing the patient for tests, collecting samples, completing the tests, and reporting the results to the physician. The student will practice laboratory procedures such as urinalysis, hematology, bacteriology, chemistries, blood typing, and patient preps.
 Prerequisite: BIOL 105, HIT 104, MA 140, and MA 110.

MA 180 Medical Office Clinical Procedures (3 - 3) 4 Cr. Hrs.
Introduces the student to examination techniques, injections, minor surgery, medications and pharmacology, sterilization procedures and autoclave.
Prerequisite: BIOL 105, HIT 104 and MA 140.

MA 195 Office Practicum (1 - 15) 3 Cr. Hrs.
The student will participate in an externship under the direction of a physician and medical assistant. The externship is structured to provide experiences in performing administrative and clinical procedures in a healthcare setting. The student will interact with other healthcare professionals in facilities such as the physician's office, ambulatory care center, clinic and hospital.
Prerequisite: Successful completion of all academic and medical assisting courses.



MEDICAL TRANSCRIPTION

Associate Dean: Robert F. Pearce, MPA
Coordinator/Instructor: Professor Patricia Rubio, MSA
Instructors: Associate Professor Jody Scheller, MS
Adjunct Faculty

MT 106 Principles of Medical Transcription (2 - 0) 2 Cr. Hrs.
An introduction to the role of the medical transcriptionist in the health care setting. The student will acquire knowledge of the types of forms and content used and required in medical transcription. The content of the course will also include the legalities and standards that apply to medical transcription.

Prerequisite: Typing skill of 50 WPM or completion of OIS 100 or OIS 102 (OIS 100 or OIS 102 may be concurrent).

MT 108 Physician Office Transcription (2 - 0) 2 Cr. Hrs.
Introduces the student to transcription practices utilized in the physician/medical office practice/setting. The course is designed to develop transcription skills necessary to transcribe dictation regarding the services and procedures that are provided for the patient. The importance of accurate transcription will be an essential aspect for this course. The student will gain experience by transcribing office, clinic, and hospital dictation from many medical specialties.

Prerequisite: HIT 104, CIS 105, and BIOL 105.

MT 156 Interpretation of Medical Tests and Therapies (3 - 0) 3 Cr. Hrs.
Introduces the student to medications and pharmacology as it applies to medical transcription reports. Study of clinical laboratory tests, surgical procedures, pathology reports and radiology reports.

Prerequisite: HIT 104 and MT 106.

MT 157 Medical Transcription Seminar (1 - 0) 1 Cr. Hr.
This course will provide an overview of the law as it is applied to health care professionals and patients and will cover a description of a legally safe working environment. The course will describe management techniques that may be employed by the entry-level and the experienced medical transcriptionist.

Prerequisite: HIT 104, MT 106, MT 108 and BIOL 105.

MT 158 Medical Transcription 2 (3 - 4) 5 Cr. Hrs.
This course will provide medical transcription skill building opportunities to strengthen and expand medical terminology. The course will emphasize the technique of developing skill with medical transcription documents for each anatomic system. The student will use the English language and communication skills during transcription practice.

Prerequisite: HIT 104, MT 106, MT 108 and BIOL 105.

MT 159 Medical Transcription 3 (3 - 4) 5 Cr. Hrs.
This course will describe and illustrate the various reports that the medical transcriptionist will be expected to transcribe. The student will use production typewriting skills in transcribing all of the commonly used medical reports. The student will be expected to format, edit and transcribe medical reports that require an advanced level of medical terminology.

Prerequisite: MT 156 and MT 157.

METALLURGY AND MATERIALS SCIENCE

Associate Dean: Fernon P. Feenstra, EdS
Instructors: Associate Professor Charles Gibbons, CSIT
Adjunct Faculty

- MET 102** Introduction to Materials Science (2 - 2) 3 Cr. Hrs.
A basic introduction to Materials Science using the Principles of Science to study the nature of metallic and nonmetallic materials used in most industries. Topics include atomic structure, elements, states of matter, bonding, crystallization, mechanical, chemical, and physical properties of metallic, polymeric, ceramic and composite materials.
Prerequisite: None.
- MET 114** Advanced Materials and Applications (3 - 0) 3 Cr. Hrs.
A course in materials applications covering ferrous and nonferrous alloys, powdered metals, glass, rubber and plastics. Each are reviewed with respect to their advantages and disadvantages, methods of fabrication and joining and specific industrial applications, both current and future. Unique applications such as magnetic devices and lasers are also reviewed.
Prerequisite: MET 102.
- MET 120** Hazardous Materials Management (2 - 0) 2 Cr. Hrs.
This course provides instruction in the nature of hazardous materials and their interaction with the health and safety of individuals as they relate to industrial metallurgical practices. Topics include proper handling of hazardous substances, chemical, physical and biological influences on health, human response to toxins, target organ effects and regulatory controls used in hazard prevention in the laboratory and materials process workplace.
Prerequisite: None.
- MET 125** Cooperative Metallurgical Experience 1 (0 - 40) 4 Cr. Hrs.
Industrial or laboratory experience under the supervision of the College Coordinator, the cooperating organization and the Department of Metallurgy and Materials Science. A written report and performance appraisal will be required.
Prerequisite: MET 102 and MET 114 or consent of department.
- MET 152** Structures and Properties Laboratory (2 - 2) 3 Cr. Hrs.
An experience orientated course with emphasis on lab techniques and equipment required for the macro and microstructural evaluation of metals produced by industrial processes. Topics include optical systems, sectioning and polishing, mounting techniques, etching, specialized measurement technology and photo-microscopy.
Prerequisite: MET 114 (may be concurrent).
- MET 160** Composite Materials (2 - 2) 3 Cr. Hrs.
An introduction to plastic and composite materials used in industry. Emphasis is placed on chemical, physical and mechanical properties of thermoplastic, thermosetting plastics and matrix reinforced composites. Topics include the nature of polymeric materials, reinforcements, coatings and adhesives. Industrial forming techniques and applications are also examined.
Prerequisite: None.
- MET 211** Physical Metallurgy Structures (3 - 1) 3 Cr. Hrs.
An interpretative study incorporating phase equilibria, diffusion, nucleation and growth, solid state transformation, strengthening mechanisms; effects of alloying, deformation, precipitation, and recrystallization and grain growth on microstructure. Microstructural interpretation of ferrous and nonferrous metal is emphasized.
Prerequisite: MET 114.
- MET 215** Mechanical Properties of Metals (3 - 1) 3 Cr. Hrs.
Basic elastic and plastic behavior, deformation, dislocations; brittle, ductile and transitional fractures; fatigue, tensile, hardness, impact and stress testing. A review of industry methods and testing standards. Mechanical forming processes used in the industry including rolling, forging, drawing and other forming techniques will be introduced.
Prerequisite: MET 114.
- MET 217** Computer Applications for Materials Science (2 - 2) 3 Cr. Hrs.
Advanced data acquisition course specifically designed for laboratory computer applications to enable the student to acquire data in real time, see it, store it, retrieve it and print it out quickly and accurately using laboratory PC, data generating devices and various software interfaces. There are extensive analytical capabilities using mechanical evaluations in conjunction with the computer. The course is applicable in a broad cross-section of disciplines including mechanical, design, electrical, thermal, chemical and medical.
Prerequisite: MET 114, and CIS 105 which can be taken concurrently or consent of department.
- MET 223** Mechanical Properties Laboratory (3 - 3) 3 Cr. Hrs.
An experience oriented course which includes a review of the mechanical properties of materials, laboratory experience in universal test equipment operation, maintenance, instrumentation, data handling and calculations. Specific topics include creep, impact, room and elevated temperature tension testing, transverse rupture and closed loop bending fatigue.
Prerequisite: MET 215 (may be taken concurrently) or consent of department.
- MET 230** Compacted Particle Materials Science (2 - 2) 3 Cr. Hrs.
A comprehensive study of powder metallurgy and ceramic materials science including related processing. Topics include the nature of particles and their characterization, mixing, compacting, sintering and testing. Emphasis is placed on structure, properties and applications.
Prerequisite: MET 102 and MET 114.
- MET 248** Electron Microscopy and Image Analysis (2 - 2) 3 Cr. Hrs.
This course introduces the fundamentals of Scanning Electron Microscopy (SEM) and quantitative Image Analysis (IA) currently used in support of effective materials evaluations. Topics include microscopy systems and components, applications in fractography and quantifiable measurements used in process and service failure analysis, materials characterization, and product development studies. Recommended for students specifically interested in specialized laboratory practices.
Prerequisite: MET 152, MET 211, and MET 217 or consent of department.

MET 280 Special Problems in Materials Science
(3 - 2) 4 Cr. Hrs.

Students having adequate backgrounds in this discipline and/or catalog specified prerequisites are encouraged to select a topic associated with metallic or nonmetallic materials, related processing, new developments or analytical techniques, and conduct investigations to identify problems, analyze data and make decisions. The results of such evaluations will be presented and reported in a systematic, critical scientific format. Scientific methods including literature search, laboratory evaluations and experimentation are encouraged. Likewise, faculty directed study will be provided.

Prerequisite: MET 215 or MET 211 or consent of instructor.



MUSIC

Associate Dean: Jeanne Bonner, MSA
Instructors: Professor Bradley Bloom, DMA
Professor Donald Morelock, MM
Adjunct Faculty

The Music curriculum is designed to provide opportunities for professional development as well as an outlet for previously acquired performance skills. Courses in Music Theory and History provide a stylistic framework from which students can gain an understanding and appreciation of the art form. Applied Music courses give students direct contact with artists/teachers who help them achieve technical competence on their instruments or with their voices. A variety of musical ensembles afford regular performance opportunities. Performance ensembles are open to all students with appropriate musical background. An elaborate electronic Musical Instrument Digital Interface (MIDI) lab and a digital keyboard lab assist in the teaching of computer music applications and piano classes. A 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 102** Music on the PC (3 - 0) 3 Cr. Hrs.
This course will offer a unique approach to the understanding and appreciation of music through projects that involve making music with the assistance of a computer. The course may be taken by students who have little or no experience with a musical instrument or by the advanced musician as well.
Prerequisite: None.
- MUSIC 103** Basic Materials in Music Theory (3 - 0) 2 Cr. Hrs.
A step-by-step approach to the fundamentals of music which includes notation, scales, intervals and triads. Not recommended for music majors with music theory background.
Prerequisite: None.
- MUSIC 105** Music Appreciation (3 - 0) 3 Cr. Hrs.
An introduction to music, designed especially to increase understanding and enjoyment of music through intelligent listening. No technical knowledge required. Outside listening and attendance at live performances are required.
Prerequisite: None.
- MUSIC 107** Music for Elementary Teachers (3 - 2) 4 Cr. Hrs.
Provides functional knowledge and skills to handle music requirements in the elementary grades. Recommended for elementary education majors. Required off-campus classroom visitations.
Prerequisite: None.
- MUSIC 109** The Architecture of Music (3 - 0) 3 Cr. Hrs.
This course serves as an introduction to the major forms of Western music. The course will cover the major musical styles from the Baroque through the 20th century. Representative masterpieces from each period will be studied. The course serves to facilitate the transition from the introductory music apweekly practice required, one private lesson and one studio class each week; performance examinations held at the end of each semester. Added fee applies. For music and non-music majors.
Prerequisite: None.

| Music Theory Classes | Applied and/or Performing Music Classes | | | |
|-------------------------|--|-----|-----|-----|
| 103 | 110 | 132 | 210 | 232 |
| 128 | 120 | 133 | 211 | 233 |
| 129 | 111 | 134 | 212 | 234 |
| 153 | 112 | 135 | 220 | 235 |
| 154 | 125 | 136 | 225 | 236 |
| 228 | 126 | 141 | 226 | 241 |
| 250 | 131 | 142 | 231 | 242 |
| 252 | | | | |

MUSIC 110 Vocal Jazz Ensemble (0 - 3) 1 Cr. Hr.

MUSIC 120 Principles and performance of jazz singing and musicianship. Jazz compositions of all styles and periods. Regular rehearsals and concerts. Vocal Jazz Ensemble is an elective for all students, regardless of major field.
Prerequisite: Audition.

MUSIC 111 Choir (2 - 1) 1 Cr. Hr. each

MUSIC 112 Principles of choral singing and musicianship. Music of all styles and periods. Choir is an elective for all students, regardless of major field.
Prerequisite: Audition.

MUSIC 114 Voice Class (1 - 0) 1 Cr. Hr.

The teaching of the fundamentals of singing. Not recommended for voice majors.
Prerequisite: None.

MUSIC 121 Class Piano 1 (2 - 0) 2 Cr. Hrs.

Group piano instruction designed for students with little or no formal piano training. Instruction is given on both electronic and acoustic instruments.
Corequisite: MUSIC 153.

MUSIC 122 Class Piano 2 (2 - 0) 2 Cr. Hrs.

Note: These courses can accommodate both music majors and other interested enrollees: MUSIC 125- 126, 131-132, 133-134, 135-136, 164, 165, 225-226.

A continuation of MUSIC 121.

Prerequisite: Completion of MUSIC 121 or equivalent.

MUSIC 125 Chamber Singers (2 - 0) 1 Cr. Hr. each

MUSIC 126 A select ensemble that performs madrigals and other chamber music for events on and off campus. Open to all students regardless of major.
Prerequisite: Audition.

MUSIC 128 Sight Singing and Ear Training 1 (0 - 2) 1 Cr. Hr.

Sight singing - melodies outlining the intervals of I and V chords of first and second inversion and non-harmonic tones. Simple rhythmic, melodic, and harmonic dictations.
Corequisite: MUSIC 153.

MUSIC 129 Sight Singing and Ear Training 2 (0 - 2) 1 Cr. Hr.

Sight singing - melodies outlining intervals of all triads and dominant seventh chords. Harmonic, melodic, rhythmic dictation-altered non-harmonic tones, secondary dominants, modulation to closely related keys, borrowed altered harmonies.
Corequisite: MUSIC 154.

MUSIC 131 Applied Music-Piano (1 - 1) 2 Cr. Hrs. each

MUSIC 132 Private instruction in piano: six hours minimum week; performance examinations held at the end of each semester. Performance opportunities at weekly symposium. Added fee applies. For music and non-music majors.
Prerequisite: None.

MUSIC 133 Applied Music-Voice (1 - 1) 2 Cr. Hrs. each

MUSIC 134 Private instruction in voice; six hours minimum weekly practice required; one private lesson each perform with a college instrumental ensemble of their choice. Regular rehearsals and concerts are scheduled. All musically talented students are invited to participate regardless of their major field. May be used as elective credit in humanities.

Prerequisite: Audition. Broadway and Tin Pan Alley, the roots and development of rock music, and late 20th century developments in popular MUSIC 135 Applied Music (1 - 1) 2 Cr. Hrs. each

MUSIC 135 Applied Music (1 - 1) 2 Cr. Hrs. each

MUSIC 136 Private instruction in all instruments of the band and orchestra, classical guitar instruction also available; 6 hours minimum weekly practice required; one private lesson each week; performance examinations held at the end of each semester. Performance opportunities at weekly symposium. Added fee applies. For music and non-music majors.
Prerequisite: None.

MUSIC 141 Instrumental Music (2 - 1) 2 Cr. Hrs. each

MUSIC 142 Wind, string, jazz, MIDI ensembles. Students may sit, as well as historical, political and sociological background of the United States as pertinent to music history. A background in music is not required.
Prerequisite: None.

MUSIC 149 Popular Music Culture in America (3 - 0) 3 Cr. Hrs.

This course serves as an introduction to some of the great works of popular music in the United States, from the songs of colonial America to the present. The course will cover the major periods/styles in popular American music history, including but not limited to music of the westward movement, ragtime and blues, the roots and growth of jazz, country music, folk music, music of Broadway, and Tin Pan Alley, the roots and development of rock music and late 20th century developments in popular music, as well as historical, political and sociological background of the United States as pertinent to music history. A background in music is not required.
Prerequisite: None.

MUSIC 153 Music Theory (3 - 0) 3 Cr. Hrs.

Harmonic progression; chords of 1st and 2nd inversion. Phrase structure and cadences. Technique of harmonization; non-harmonic tones.
Corequisite: MUSIC 128.

MUSIC 154 Music Theory (3 - 0) 3 Cr. Hrs.

Introduction to 7th chords, altered non-harmonic tones, secondary dominants, modulation to closely related keys, borrowed and altered chords; original composition.
Prerequisite: MUSIC 153.
Corequisite: MUSIC 129.

MUSIC 155 Music of Broadway (3 - 0) 3 Cr. Hrs.

This course will look at the history and development of the Broadway musical, from its roots in early American musical entertainment and classical European opera, its heyday in the post-modern era, and its evolution in the late 20th century as a result of the music publishing and recording industry. In addition, the course will take an in-depth look at the music and structure of several Broadway masterpieces and how they affected and were affected by American popular culture.
Prerequisite: None.

- MUSIC 164 Music History 1 (3 - 0) 3 Cr. Hrs.
Detailed survey of literature, history and musical materials of the Baroque and Classical eras.
Prerequisite: None.
- MUSIC 165 Music History 2 (3 - 0) 3 Cr. Hrs.
Detailed survey of history and literature of music of the Romantic and 20th century eras.
Prerequisite: None.
- MUSIC 171 Music Technology 1 (3 - 0) 3 Cr. Hrs.
Introduction to the fundamentals of MIDI/computer hardware and software. This course will examine the basic functions of the keyboard controller, synthesizer, sound modules, line mixer, effects unit, and computer interface through hands-on experience and experimentation. The course will also introduce the student to current software applications that emphasize music performance and composition with the assistance of MIDI hardware and a microcomputer.
Prerequisite: MUSIC 103, MUSIC 121 or equivalent.
- MUSIC 172 Electronic Music: Intermediate MIDI/Sampling and Sound Editing (3 - 0) 3 Cr. Hrs.
This course will deal with advanced functions of MIDI sequencing and notation. It will also introduce the student to sound sampling and editing with the assistance of MIDI hardware and a microcomputer.
Prerequisite: MUSIC 171.
- MUSIC 210 Vocal Jazz Ensemble (0 - 3) 1 Cr. Hr. each
- MUSIC 220 Principles and performance of jazz singing and musicianship. Jazz compositions of all styles and periods. Regular rehearsals and concerts. Vocal Jazz Ensemble is an elective for all students, regardless of major field.
Prerequisite: Audition.
- MUSIC 211 Choir (2 - 1) 1 Cr. Hr. each
- MUSIC 212 Principles of choral singing and musicianship. Music of all styles and periods. Choir is an elective for all students, regardless of major field.
Prerequisite: Audition.
- MUSIC 225 Chamber Singers (2 - 0) 1 Cr. Hr. each
- MUSIC 226 A select ensemble that performs madrigals and other chamber music for events on and off campus. Open to all students regardless of major field.
Prerequisite: Audition.
- MUSIC 228 Sight, Singing, and Ear Training 3 (0 - 1) 1 Cr. Hr.
Sight singing - melodies in all clefs outlining intervals of all triads, ninths, elevenths, thirteenth, melodic chromaticism. Harmonic, melodic, rhythmic dictation-chromatic mediants, modulation to foreign keys.
Prerequisite: MUSIC 129.
Corequisite: MUSIC 250.
- MUSIC 231 Applied Music, Piano (1 - 1) 2 Cr. Hrs. each
- MUSIC 232 Private instruction in piano; six hours minimum weekly practice required; one private lesson and one studio class each week; performance examination held at the end of each semester. Added fee applies.
Prerequisite: MUSIC 132.
- MUSIC 233 Applied Music, Voice (1 - 1) 2 Cr. Hrs. each
- MUSIC 234 Private instruction in voice, six hours minimum weekly practice required; one private lesson each week; performance examinations held at the end of each semester. Performance opportunities at weekly symposium. Added fee applies. For music and non-music majors.
Prerequisite: MUSIC 134.
- MUSIC 235 Applied Music (1 - 1) 2 Cr. Hrs. each
- MUSIC 236 Private instruction in all instruments of the band and orchestra; six hours minimum weekly practice required; one private lesson each week; performance examinations held at the end of each semester. Performance opportunities at weekly symposium. Added fee applies. For music and non-music majors.
Prerequisite: MUSIC 136.
- MUSIC 241 Instrumental Music (2 - 1) 2 Cr. Hrs. each
- MUSIC 242 Wind, string, jazz, MIDI ensembles. Students may perform with a college instrumental ensemble of their choice. Regular rehearsals and concerts are scheduled. All musically talented students are invited to participate regardless of their major field. May be used as elective credit in humanities.
Prerequisite: Audition.
- MUSIC 247 Piano Teaching Techniques and Materials 1 (3 - 0) 3 Cr. Hrs.
Designed for teachers enrolled in the Piano Teaching Program.
Prerequisite: Consent of instructor.
- MUSIC 250 Music Theory (3 - 0) 3 Cr. Hrs.
Chromatic mediants modulation to foreign keys. Ninth, 11th, and 13th chords. Analysis; original compositions in basic homophonic forms and traditional harmony.
Prerequisite: MUSIC 154.
- MUSIC 252 Music Theory (4 - 0) 4 Cr. Hrs.
Eighteenth century counterpoint - study, analysis and composition of two-voice invention and three-voice fugue; 20th century forms and harmonic tendencies - study, analysis and composition of quartal harmony piece, and work using the 12-tone system.
Prerequisite: MUSIC 250.
- MUSIC 257 Piano Teaching Techniques and Materials 2 (3 - 0) 3 Cr. Hrs.
Designed for teachers enrolled in the Piano Teaching Program.
Prerequisite: Consent of instructor.
- MUSIC 298 Special Music Projects (2 - 0) 2 Cr. Hrs.
- MUSIC 299 An opportunity for the talented student to explore individually, in depth, under the direction of a faculty member, a performance, composition, or research related project. This course provides an opportunity to present traditional musical events such as a recital or a concert, or to learn a new technology.
Prerequisite: Dean's list status (G.P.A. 3.5). Successful completion of MUSIC 154 and two semesters of applied voice or instrumental music. Student eligibility will be determined during interviews with the instructor.

NURSING

Associate Dean: Midge Carleton, MS
 Coordinator/Assistant: Monica Sullivan, BSN
 Instructors: Associate Professor Sharon Griffin, MSN
 Associate Professor Elizabeth Quell, MSN
 Associate Professor Deborah Vendittelli, MSN
 Assistant Professor Tamara Campbell, MSN
 Assistant Professor Nancy Palmer, MSN
 Assistant Professor Cheryl Mascolo, MSN
 Adjunct Faculty
 Instructor Marlynn Marroso, MSN

NURS 111 Fundamentals of Nursing (4 - 8) 7 Cr. Hrs.
 This course is the introduction to the theory and practice of nursing. The student will learn application of the nursing process through the development of nursing skills and the use of psychosocial principles. The emphasis is on assessment and diagnosis of adult patient needs and on the communication skills necessary to give nursing care. The student will apply knowledge of legal/ethical concerns, medical terminology, spiritual care, cultural diversity, infection control, nutrition, pharmacology and the calculation of drug dosages during laboratory and clinical practice.

Prerequisite: High school biology or BIOL 050, high school chemistry or CHEM 051, high school algebra or MATH 051, AHE 101, ENG 101, BIOL 243, BIOL 235 or 237/238, and consent of department. Also BIOL 115 is recommended.

NURS 112 Care of Physically ILL Patients (4 - 10) 7 Cr. Hrs.
 This course is an introduction to the theory and application of the nursing process for adult clients having common medical or surgical problems. The student will apply knowledge of infection control, pathophysiology, pharmacology, nutrition, diagnostic tests, psychosocial, spiritual, cultural and communication principles, as well as basic nursing skills.

Prerequisite: NURS 111 and PSYCH 201.

NURS 115 LPN to RN Transition Course (8 Weeks) (4 - 5) 3 Cr. Hrs.
 This course is for Licensed Practical Nurses (LPNs) who are articulating to Registered Nurse (RN) status. Theory and supervised clinical experience will be focused on the transition of the LPN to the RN role; the health-illness continuum; biopsychosocial development and human needs; nurse-client interaction; nursing process; clinical skills and patient education.

Prerequisite: Current LPN license, Napres Certification, Credit by exam for NURS 111, High School Biology or BIOL 50, BIOL 237/238 or BIOL 235 (minimum grade of 2.0), High School Chemistry or CHEM 051, High School Algebra or MATH 051, or consent of Nursing Department.

NURS 116 Fundamentals of Nursing 1 (2 - 3) 3 Cr. Hrs.
 This course is an introduction to the theory and practice of nursing. Students will utilize critical thinking, nursing process and psychological principles as a foundation for provision of care for clients experiencing alterations in functional health patterns. The student will apply knowledge of health, nutrition, cultural diversity and gerontological concepts in assessing and diagnosing adult client's needs in a community setting. Nursing skills related to asepsis, physical assessment, mobility, hygiene, safety and skin integrity will be performed in laboratory and/or clinical settings.

Prerequisite: High school biology or BIOL 050, high school chemistry or CHEM 051, high school algebra or MATH 051, and consent of department. BIOL 235 or BIOL 237 and BIOL 238 with minimum grade of 2.5. BIOL 115 is also recommended.

NURS 117 Fundamentals of Nursing 2 (1 - 6) 3 Cr. Hrs.
 This course continues the study of critical thinking, nursing process and psychosocial principles for provision of care for clients experiencing alterations in functional health patterns. Nursing skills will build upon those previously learned. Skills such as sterile asepsis, wound care, and medication administration will be practiced during supervised laboratory practice. The student will apply knowledge of health, nutrition, cultural diversity, gerontological concepts, and ethical-legal considerations to provide nursing care to adult clients in an extended care facility/community setting.

Prerequisite: NURS 116.

NURS 118 Pharmacology 1 (1 - 0) 1 Cr. Hr.
 This course introduces pharmacological concepts and major drug classifications. Drug information includes mechanism of action, drug effects, therapeutic uses, side effects, adverse effects, toxicity, drug interactions, and dosages. The nursing process will be utilized as related to drug therapy.

Prerequisite: NURS 116.

NURS 119 Pharmacology 2 (1 - 0) 1 Cr. Hr.
 This course is a continuation of Pharmacology 1. Drug information includes mechanism of action, drug effects, therapeutic uses, side effects, adverse effects, toxicity, drug interactions, and dosages for selected drug classifications. The nursing process will be utilized as related to drug therapy.

Prerequisite: NURS 117 and NURS 118.

NURS 120 Health Assessment and Adult Medical - Surgical Nursing 1 (2 - 6) 4 Cr. Hrs.
 This course involves the application of critical thinking, nursing process and psychosocial principles for provision of care for adult clients experiencing alterations in functional health patterns. Health and physical assessment techniques/processes will be utilized in community and acute care settings. Skills learned in previous nursing courses as well as skills such as sterile asepsis, wound care, medication administration, and intravenous therapy will be demonstrated during lab/clinical activities. Theoretical content will focus on care of clients with alterations affecting the respiratory, cardiovascular, musculoskeletal and endocrine systems.

Prerequisite: NURS 117, NURS 118 and PSYCH 201.

- NURS 121** Adult Medical - Surgical Nursing 2 (2 - 9) 5 Cr. Hrs.
This course continues application of the nursing process for adult clients experiencing alterations in functional health patterns. The student will utilize critical thinking skills to apply knowledge of infection control; pathophysiology; pharmacology; diagnostic testing; nutrition; and psychosocial, spiritual, cultural, and ethical-legal principles in provision of nursing care for adult clients in a medical-surgical/community setting. Theoretical content will focus on care of clients with alterations affecting the renal, neurological, gastrointestinal, hepatic, biliary, male reproductive, and hematological systems.
Prerequisite: NURS 120.
- NURS 122** Psychiatric - Mental Health Nursing (2 - 6) 4Cr. Hrs.
This course applies critical thinking skills, nursing process, and psychosocial principles and interventions for mental health clients in acute and community settings.
Prerequisite: NURS 121 and PSYCH 209.
- NURS 208** Trends in Nursing (1 - 0) 1 Cr. Hr.
Study of the evolution of nursing as a profession, current issues in education and practice, role of the registered nurse in modern health services, employment opportunities, and preparation for licensure as a registered nurse.
Prerequisite: NURS 211, NURS 212 or NURS 213.
- NURS 211** Nursing Care of Women and Childbearing Families (2 - 9) 5 Cr. Hrs.
This course introduces the student to the theory and practice of nursing care of women and childbearing families. Course content will include care of women and their families during the perinatal experience. Pathophysiology, diagnosis, treatment, preventative measures, and patient teaching strategies for select gynecological disorders will also be covered. Acute and community settings will be utilized for clinical experiences. The student will utilize critical thinking skills and incorporate previously learned content.
Prerequisite: NURS 119 and NURS 122. BIOL 243 with a minimum grade of 2.5 required.
- NURS 212** Nursing Care of Children and Families (2 - 9) 5 Cr. Hrs.
This course is designed to introduce the student to the theory and clinical practice of the acutely ill child and their family. The student will integrate previously learned nursing skills and theory in meeting the needs of acutely ill children and their families. There will also be a focus on the topic of growth and development and how the child's level of growth and development may impact their illness. The issue of growth and development will also be addressed in considering the needs of the well child and well child care. The student will be expected to demonstrate beginning skills in the management of multiple clients and their families. The student will also be expected to identify the role of the pediatric nurse when acting as an advocate for the child and/or family.
Prerequisite: NURS 119 and NURS 122. BIOL 243 with a minimum grade of 2.5 required.
- NURS 213** Adult Medical - Surgical Nursing 3 (2 - 9) 5 Cr. Hrs.
In this course students will utilize critical thinking, nursing process, psychosocial concepts and previously learned principles to provide care for adult clients experiencing complex alterations in functional health patterns. Advanced nursing skills will be utilized during clinical practice in acute care and community settings.
Prerequisite: NURS 119 and NURS 122. BIOL 243 with a minimum grade of 2.0 required.
- NURS 214** Leadership and Nursing Management of Complex Clients (2 - 9) 5 Cr. Hrs.
This course includes advanced medical-surgical nursing content and basic principles of leadership and management. Current legal-ethical issues are included, as well as issues related to nursing practice, standards of conduct, employment, and licensure requirements. Clinical practice provides opportunities for students to be integrated as part of the health care team while providing complex care to groups of clients.
Prerequisite: NURS 211, NURS 212, and NURS 213.
- NURS 224** Advanced Maternity Nursing for LPNs (4 Weeks) (4 - 15) 2.5 Cr. Hrs.
This course is for Licensed Practical Nurses (LPNs) who are articulating to Registered Nurse (RN) status. This course will focus on common complications of prenatal, labor, delivery and postpartum patients. Also the care and appropriate nursing interventions for these patients and their infants.
Prerequisite: NURS 115 and BIOL 243 with minimal grade of 2.0 required.
- NURS 226** Advanced Nursing Care of Children for the LPN (4 Weeks) (4 - 15) 2.5 Cr. Hrs.
This course is for licensed LPNs who are articulating to RN status. Theory and supervised clinical experience will be aimed at expanding on previous theory and clinical experience in the nursing care of physically ill children of all ages and their families. Focus is also aimed at expanding on previous learning in meeting the needs of children and their families with normal growth and development concepts and adaptation of basic nursing skills in the pediatric setting.
Prerequisite: NURS 115 and BIOL 243 with minimal grade of 2.0 required.
- NURS 231** Medical - Surgical RN Refresher 1 (4 - 2) 5 Cr. Hrs.
This is the first in a two course sequence designed for the Registered Nurse who has not practiced in the acute care setting for the past two or more years. Opportunity is provided in the classroom and skill lab to review nursing skills and the care of adult patients with commonly occurring medical-surgical problems.
Prerequisite: Current licensure as a Registered Nurse in the United States, or consent of the instructor.
- NURS 232** Medical - Surgical RN Refresher 2 (4 - 0) 2 Cr. Hrs.
This course continues the review of Medical-Surgical Nursing for the RN who has not practiced in the acute care setting for the past two or more years. The focus is the care of adult patients with more complex nursing needs. There is continued emphasis on nursing skills and utilization of psychosocial and communication principles.
Prerequisite: NURS 231 with a minimum grade of 2.0 required.
- NURS 233** Medical - Surgical RN Refresher Clinical (0 - 15) 3 Cr. Hrs.
This course provides medical-surgical clinical practice in an acute-care setting to enable the nurse to apply the theory from NURS 231 and NURS 232 to actual patient care situations.
Prerequisite: NURS 231 with minimum grade of 2.0 required.
Corequisite: NURS 232

OCCUPATIONAL THERAPY ASSISTANT

Associate Dean: Robert F. Pearce, MPA
 Coordinator/Instructor: Assistant Professor Cheryl Hawkins, MS
 Instructors: Professor Nancy Vandewiele-Milligan, MS
 Adjunct Faculty

- OT 100 Orientation (1 - 0) 1 Cr. Hr.
 An introduction to the profession of Occupational Therapy including history, philosophy and function with emphasis on the role and function of the Certified Occupational Therapy Assistant as a provider of health services to consumers. Open to any interested student.
 Prerequisite: None.
- OT 104 Theory and Practice Level 1A - Children (2 - 3) 3 Cr. Hrs.
 The observation, identification and reporting of functional level(s), behavior and reaction(s) to activities of children in community settings.
 Prerequisite: Consent of instructor.
 Corequisite: OT 100.
- OT 114 Theory and Practice Level 1B - Adults (2 - 3) 3 Cr. Hrs.
 The observation, identification, and reporting of functional level(s), behavior and reaction(s) to activities of adults in community settings.
 Prerequisite: OT 104 and OT 123.
 Corequisite: OT 125 and consent of Instructor.
- OT 123 Growth Development/Application and Analysis 1 (3 - 4) 5 Cr. Hrs.
 A study of normal physical, mental, emotional, and social development of the individual from birth to 18 years of age. Group performance and interpersonal relationships will be stressed.
 Prerequisite: None.
 Corequisite: OT 104.
- OT 125 Growth Development/Application and Analysis 2 (3 - 4) 5 Cr. Hrs.
 A study of the normal physical, mental, emotional and social development and changes that occur in individuals from 19 to senescence. Group performance and interpersonal relationships will be stressed.
 Prerequisite: OT 123.
 Corequisite: OT 114.
- OT 200 Muscle Function (1 - 3) 4 Cr. Hrs.
 Emphasis will focus on advance evaluation techniques of muscles and range. Construction of splints, hemisling and transfer techniques and their application to various disabilities.
 Prerequisite: BIOL 105 and/or consent of instructor.
- OT 201 Clinical Conditions - Physical Dysfunction (4 - 0) 4 Cr. Hrs.
 The study of clinical conditions of medical and surgical patients. Emphasis will be placed on pathology, symptoms, precautions, evaluation and treatment.
 Corequisite: OT 200.
- OT 204 Theory and Practice Level 1A - Physical Dysfunction (2 - 3) 3 Cr. Hrs.
 A correlation of principles of the practice of Occupational Therapy in physical and related psychosocial dysfunction conditions. Assigned practical experience will consist of one afternoon per week in OT department/clinical assisting with patient treatment.
 Prerequisite: Consent of Instructor.
 Corequisite: OT 200 and OT 201.

- OT 208 Physical Modalities and Work Hardening (2 - 2) 3 Cr. Hrs.
 Develop skills and techniques pertinent to evaluation for selection and training in the use of adaptive equipment required by physically dysfunctioning individuals in areas of need under supervision.
 Prerequisite: None.
 Corequisite: OT 200, OT 201, and OT 204.
- OT 210 Group Skills (4 - 0) 4 Cr. Hrs.
 Theory and principles involved in understanding small groups using an experimental, observational approach.
 Prerequisite: None.
- OT 212 Clinical Conditions - Psychosocial Dysfunction (4 - 0) 4 Cr. Hrs.
 The study of clinical conditions of psychosocially dysfunctioning patients. Emphasis will be placed on clinical picture, precautions, evaluation and treatment.
 Prerequisite: None.
- OT 214 Theory and Practice Level 1B - Psychosocial Dysfunction (2 - 3) 3 Cr. Hrs.
 A correlation of principles with the practice of Occupational Therapy in physical and psychosocial dysfunctioning conditions. Assigned practical experience will consist of one afternoon per week in OT departments/clinics assisting with patient treatment.
 Prerequisite: OT 201 and OT 204.
 Corequisite: OT 210, OT 212 and consent of Instructor.
- OT 216 Assistive Technology - Computers (0 - 6) 4 Cr. Hrs.
 Develop knowledge, skills and teaching techniques in the use of assistive technology and computers.
 Prerequisite: None.
- OT 220 Clinical Experience Level 2A (2 - 36) 4 Cr. Hrs.
 Provide practical experience under the supervision of qualified occupational therapists in the treatment of physical or psychosocial dysfunctioning clients.
 Prerequisite: OT 204, OT 214 and consent of Instructor.
- OT 225 Clinical Experience Level 2B (2 - 36) 4 Cr. Hrs.
 Provide practical experience under the supervision of qualified occupational therapists in the treatment of physical or psychosocial dysfunctioning clients.
 Prerequisite: OT 204, OT 214 and consent of Instructor.

OFFICE INFORMATION SYSTEMS

Associate Dean: Fernon P. Feenstra, EdS
Instructor: Professor Patricia Partyka, MEd
Adjunct Faculty

- OIS 100 Keyboarding 1 (2 - 0) 2 Cr. Hrs.
Students will learn how to keyboard using the touch control method. Development of proper keyboarding techniques while building basic accuracy and speed will be emphasized.
Prerequisite: None.
- OIS 102 Keyboarding 2 (2 - 0) 2 Cr. Hrs.
This course continues the development of accuracy and speed in keyboarding. Emphasis will be in formatting various kinds of business correspondence, reports and tables.
Prerequisite: OIS 100 or equivalent.
- OIS 105 Office Communications and Editing Skills (3 - 0) 3 Cr. Hrs.
This course is designed to review and incorporate the principles of grammar, punctuation, vocabulary, spelling, proofreading and editing of business documents.
Prerequisite: A skill level of ENG 050 or higher on the placement test. OIS 102 strongly recommended.
- OIS 145 WordPerfect for Windows (3 - 0) 3 Cr. Hrs.
This course is designed to provide practical hands-on experience with a current word processing software package for the microcomputer. Current software packages will be introduced and explained with emphasis in the area of word processing.
Prerequisite: OIS 102 or equivalent and OIS 105.
- OIS 165 Microsoft Word for Windows (3 - 0) 3 Cr. Hrs.
This course is designed to provide practical hands-on experience with a current word processing software package for the microcomputer. Current software packages will be introduced and explained with emphasis in the area of word processing.
Prerequisite: OIS 102 or equivalent and OIS 105.

- OIS 185 Business Presentation 1 - Fundamental Concepts (3 - 0) 3 Cr. Hrs.
This course will introduce students to the fundamental concepts of office presentations. Students will produce elementary presentation documents such as overheads, audience handouts and speaker notes.
Prerequisite: OIS 165 or equivalent.
- OIS 195 Time and Project Management (1 - 0) 1 Cr. Hr.
This course will aid students in gaining control of their office activities by showing them how to set goals around individual values and how to use a day planner.
Prerequisite: None.
- OIS 255 Office Procedures (2 - 0) 2 Cr. Hrs.
This course is designed to enhance the students' knowledge about basic secretarial skills, office reprographics, public relations, records management, telephone techniques, mailing and shipping services, meeting and conference planning, travel arrangements and written communication.
Prerequisite: OIS 100 or equivalent.
- OIS 260 Office Administration (3 - 0) 3 Cr. Hrs.
The student will learn the basic principles of administrative office management, the importance of managing human resources and administrative services, as well as controlling administrative operations.
Prerequisite: OIS 255 recommended.
- OIS 265 Advanced Microsoft Word for Windows (3 - 0) 3 Cr. Hrs.
This course is a continuation of OIS 165 and will focus on the advanced functions of Microsoft Word such as macros, merge, tables, columns, sort and select.
Prerequisite: OIS 165.



PHILOSOPHY

Associate Dean: Midge Carleton, MS
Instructors: Associate Professor Robert Schaden, PhD
Adjunct Faculty

- PHIL 243 Introduction to Philosophy (3 - 0) 3 Cr. Hrs.
Designed to familiarize the student with philosophy as a foundation for life, this course provides an introduction to questions in metaphysics, epistemology, ethics, social and political philosophy and the philosophy of religion. Classical and modern philosophers from Western, Asian, African and Native American traditions are presented. Critical thinking and an application of theory to contemporary issues are emphasized.
Prerequisite: None.
- PHIL 247 Logic (4 - 0) 4 Cr. Hrs.
This course is designed to assist the student in distinguishing between good and bad reasoning. The course will address both informal logic, which focuses on arguments in every day language and how to evaluate them, and formal logic, which focuses on symbolic language and the formal methods for determining the validity of arguments. Common logical fallacies will be outlined and attention given to validity of arguments on contemporary issues in the public forum.
Prerequisite: None.
- PHIL 277 Ethical Problems (3 - 0) 3 Cr. Hrs.
In this course the student will be introduced to a variety of ethical theories as discussed by classical and contemporary moralists. The course experience also provides for an application of these theories to modern moral questions through a process of critical thinking in discussion and in written assignment. Lecture, discussion and readings are employed to explore alternate solutions to present day moral problems.
Prerequisite: PHIL 243 or equivalent.

PHYSICAL EDUCATION, HEALTH & RECREATION

Associate Dean: Midge Carleton, MS
Instructors: Professor Jack Washka, MEd
Professor Cecil Woodruff, PhD
Adjunct Faculty

1. Students enrolled in certificate programs are encouraged, but not required, to complete one semester hour of a physical education activity credit. Students enrolled in a degree program are encouraged, but not required, to complete two semester hours of physical education activity credit. Physical education activity credits may be taken as elective credit towards an Associate Degree when applicable. See Graduation Requirements.
2. Activity classes are offered in various time blocks and have an added fee.
3. Students must register for ALL CLASSES in a given semester/session at registration time, regardless of a later starting date. See published class schedule.

ACTIVITY COURSES

All of the individual and team sport activities listed below include the sport history, basic techniques, fundamental skills, strategy, rules and the opportunity to participate in a competitive situation.

| Course | Credits |
|-------------------------------|---------|
| PE 131 Golf | 2 |
| PE 132 Tennis, beginning | 2 |
| PE 133 Tennis, intermediate | 2 |
| PE 141 Basketball | 2 |
| PE 153 Volleyball | 2 |
| PE 157 Paddleball/Racquetball | 2 |
| PE 194 Weight Training | 2 |

Most activity classes have a \$15.00 fee, which includes locker use and uniform.

WATER SKILLS AND LECTURE THEORY COURSES

- PE 101 Life-style Fitness (1 - 1) 2 Cr. Hrs.
This course will introduce the student through lecture and exercise to various methods and benefits of mental and physical fitness 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 students to make sound health choices. Pre- and post-fitness assessments will be taken.
Prerequisite: None.
- PE 104 Physical Fitness and Conditioning (1 - 1) 2 Cr. Hrs.
Stresses vigorous body conditioning through progressive exercises, stretching, weight machine and free weight use. Cardiovascular fitness will be emphasized.
Prerequisite: None.
- PE 106 Beginning Swimming (1 - 1) 2 Cr. Hrs.
For the student who has little or no skill and knowledge of swimming techniques. Fundamental instruction in the basic swimming strokes, including front crawl, back crawl, elementary back stroke, side stroke, elementary diving and water safety skills.
Prerequisite: None.



- PE 115 Aerobic Dance Fitness (1 - 1) 2 Cr. Hrs.
Instruction will stress the development of an individual's aerobic capacity and cardiovascular endurance through aerobic dance and dance exercise.
Prerequisite: None.
- PE 116 Intermediate Swimming (1 - 1) 2 Cr. Hrs.
For students who can swim two lengths of the pool, stay afloat for three minutes. Designed to increase skill and knowledge in the basic swimming strokes, including front crawl, back crawl, elementary back stroke, side stroke, breast stroke, diving and water safety skills. Some stroke variations and synchronized swimming techniques may be covered.
Prerequisite: None.
- PE 118 Total Aqua Toning and Aerobic Fitness (1 - 1) 2 Cr. Hrs.
This course is designed to give the student the knowledge of proper and safe techniques for performing various exercises for strength, flexibility and cardiovascular fitness in water and on deck with regard to the following: water aerobics, water walking, muscle toning.
Prerequisite: Must be comfortable in deep water.
- PE 121 First Aid and Personal Safety (2 - 0) 2 Cr. Hrs.
A lecture-demonstration approach on the prevention of accidents and care of victims with emergencies skill training in all procedures. Heimlich Maneuver and CPR will be discussed. American Red Cross responding to Emergencies Certificate and Adult, Child and Infant CPR cards may be earned. Satisfies requirements of Occupational Safety and Health Act (OSHA) or Michigan Occupational Safety and Health Act (MIOSHA).
Prerequisite: None.
- PE 123 Healthful Living (3 - 0) 3 Cr. Hrs.
A course emphasizing and promoting the individual's responsibility for the acquiring of attitudes, habits, skills and ideas favorable to healthful living. Body systems and their functions are explored along with the interrelationships of health problems of the individual, the community and the environment.
Prerequisite: None.
- PE 150 Racquet Sports (1 - 1) 2 Cr. Hrs.
A course designed to introduce the skills, terminology, rules and strategies for the racquet sports of racquetball, badminton, and tennis. There will be an opportunity for competition and skill refinement.
Prerequisite: None.
- PE 164 Skin and Scuba Diving (1 - 2) 3 Cr. Hrs.
Skills, techniques, safety factors, mechanics, first aid, marine life and environment, medicine and physics of diving and dive organization are stressed. Open water certification may be earned. Some advanced techniques are included. Equipment, rented or furnished, should not be obtained until after the first class meeting. Class size limited to 17 persons.
Prerequisite: Beginning Swimming or equivalent required.
- PE 166 Self-Defense (1 - 1) 2 Cr. Hrs.
Combines various methods of self-defense with an emphasis on Judo. Related techniques of Jujitsu and Karate will be covered.
Prerequisite: None.
- PE 194 Weight Training (1 - 1) 2 Cr. Hrs.
Various methods of weight training for both men and women are taught. Proper lifting techniques learned. The concept of "total fitness and body awareness" is stressed.
Prerequisite: None.
- PE 202 Lifestyle Fitness and Wellness (1 - 1) 2 Cr. Hrs.
This course will introduce the student, through lecture and exercise, to the various methods and benefits of physical and emotional fitness and wellness activities. A wide variety of topics pertinent to the physical and mental health and well-being of the individual will be presented and practiced, providing the framework for the student to make sound health choices. Pre- and post-fitness assessments will be taken. Both in-class and outside of class lab projects will be undertaken.
Prerequisite: None.
- PE 206 Advanced Swimming (1 - 1) 2 Cr. Hrs.
Advanced swimming instruction and practice with emphasis on stroke technique with diving included (side and springboard).
Prerequisite: Intermediate Swimming or PE 116 ability required.
- PE 240 Physical Education for Elementary Teachers (3 - 0) 3 Cr. Hrs.
Use of basic movement, games, relays, stunts, and organization for the early and later elementary grades. Emphasis is on the organization for P.E. at these levels. Students are required to make arrangements for observation of elementary classes during the latter part of the semester.
Prerequisite: None.

PHYSICS

Associate Dean: Midge Carleton, MS
 Instructors: Professor John Lesko, MS
 Professor Steve Schewe, MS

- PHYS 051 Basic Physics (4 - 1) 4 Cr. Hrs.
 Mechanics, sound, heat, electricity, light and modern physics. For those students who have had no previous course in physics or need review of the subject to prepare for college physics.
 Prerequisite: One year of high school algebra or MATH 051.
- PHYS 104 Introduction to Astronomy (3 - 2) 4 Cr. Hrs.
 History, methods, the solar system, stars, galaxies and cosmology. For students in any curriculum, but not for science majors.
 Prerequisite: One year of high school algebra or MATH 051.
- PHYS 123 Applied Physics (4 - 2) 5 Cr. Hrs.
 A course in applied physics designed for technical business and applied health programs. Using trigonometry, the traditional topics of mechanics, heat, acoustics, electricity and magnetism, optics, modern physics and nuclear physics are treated in a practical and applied fashion with emphasis on laboratory work and scientific procedures. (Can replace PHYS 051.)
 Prerequisite: MATH 112.
- PHYS 181 General Physics (4 - 2) 4 Cr. Hrs.
 Mechanics, fluids, energy relationship, heat, and sound. Not for engineering students or physics majors.
 Prerequisite: MATH 119 and one year of high school physics or PHYS 051 or PHYS 123.
- PHYS 182 General Physics (4 - 2) 4 Cr. Hrs.
 Continuation of PHYS 181. Magnetism, electricity, light and modern physics. Not for engineering students or physics majors.
 Prerequisite: PHYS 181.
- PHYS 211 General Physics (5 - 2) 5 Cr. Hrs.
 Mechanics, fluids, heat and sound. For engineering students and science majors.
 Prerequisite: High school physics or PHYS 051 and MATH 150.
- PHYS 212 General Physics (5 - 2) 5 Cr. Hrs.
 Continuation of PHYS 211. Magnetism, electricity, light and modern physics.
 Prerequisite: A grade of 2.0 or better in PHYS 211.

POLITICAL SCIENCE

Associate Dean: Jeanne Bonner, MS
 Instructors: Professor William Burke, MA
 Associate Professor Kent Kirkpatrick, MA
 Instructor Alexander Thomson, MA

- POLS 105 Survey of American Government (3 - 0) 3 Cr. Hrs.
 Survey of the American political system, including an analysis of decision makers, power and controversial issues, at the national, state and local governmental levels.
 Prerequisite: None.
- POLS 109 State and Local Government (3 - 0) 3 Cr. Hrs.
 Nature of state constitutions and powers; structure and operation of state executive, legislative and judicial branches; organization, functions and problems of local governments; state-federal and state-local relations.
 Prerequisite: None.
- POLS 205 Political Parties (3 - 0) 3 Cr. Hrs.
 Organization and functions of modern American political parties. Includes an analysis of campaigns, conventions, power and participation in politics. A campaign simulation may be used.
 Prerequisite: POLS 105 or equivalent political experience or consent of instructor.
- POLS 207 Comparative Government (3 - 0) 3 Cr. Hrs.
 The essence of politics including the scientific method and the comparative study of politics; democratic and autocratic political systems; typologies and types of variables; environmental considerations; history and political culture; structures for political participation; governmental structures and processes; system institutionalization and durability. Major western European countries will be discussed.
 Prerequisite: A college course in political science or history, or consent of instructor.
- POLS 209 International Relations (3 - 0) 3 Cr. Hrs.
 This course provides an examination of some of the social, economic and political forces which make for cooperation and conflict between nations. Emphasis will be on political economy. Areas of concentration include the Russian Revolution and the rise of the U.S.S.R., the Chinese Revolution and the emergence of China and the unfolding relationships between the third world and the industrialized nations. International economics and the international debt will be examined. Recent studies of Chile and Cuba will be presented.
 Prerequisite: Sophomore standing and POLS 105. Completion of other social science courses recommended.

PRACTICAL NURSING

Associate Dean: Midge Carleton, MS
 Coordinator/Assistant: Monica Sullivan BSN
 Instructors: Professor Janet Kolenda, BSN
 Assistant Professor Tamara Campbell, MSN
 Adjunct Faculty

- PN 102 Fundamentals of Practical Nursing (6 - 18) 8 Cr. Hrs.
 The course includes beginning theory and supervised practice in the fundamental skills necessary to meet the needs of the chronically ill patient. The student will learn application of the nursing process with emphasis on assessment and planning, along with application of communication skills necessary to give patient care. The study of normal nutrition with application to the geriatric patient and math necessary for administration of medications is included.
 Prerequisite: Consent of department.
- PN 107 Human Behavior and Relationships (4 - 0) 4 Cr. Hrs.
 An introductory course in Practical Nursing that focuses on understanding how human behavior and personality arise from various cultures, groups and philosophies and how to deal with them. This course includes nursing development, communication skills and legal and ethical aspects of practical nursing, as well as a section on how a client's spiritual needs or religious orientation affect health care.
 Prerequisite: None.
 Corequisite: PN 102.
- PN 119 Mental Health Nursing (3 - 0) 3 Cr. Hrs.
 Continuation of PN 107 with emphasis on helping the client deal with developmental problems of young, middle and late adulthood. Includes psychiatric disorders, substance abuse and the impact of the community and family on the client's recovery. Also includes coping and defense mechanisms used by clients to deal with illness, anger, grief and depression.
 Prerequisite: PN 102 and PN 107.
 Corequisite: PN 123
- PN 123 Nursing Adult Patients (8 - 21) 10 Cr. Hrs.
 The course is an introduction to the care of adult patients having common physical disorders. The student will focus on the application of nursing process in planning patient care. The student will apply knowledge of basic nursing skills, nutrition, pharmacology, diagnostic tests, pathophysiology, communication and behavioral principles in the care of selected adult patients.
 Prerequisite: PN 102, PN 107, and BIOL 105 with a minimum grade of 2.0.
- PN 128 Trends in Practical Nursing (2 - 0) 1 Cr. Hr. (8 Weeks)
 Study of the current issues and trends in education and practice, role of the practical nurse in modern health services, employment opportunities, and preparation for licensure as a licensed practical nurse.
 Prerequisite: PN 123 and PN 119 with minimum grade of 2.0.
- PN 130 Maternal and Child Nursing (6 - 24) 5 Cr. Hrs. (8 Weeks)
 Correlated theory and clinical practice in nursing the mother through labor, delivery and postpartum, as well as nursing children from the newborn through the adolescent period.
 Prerequisite: PN 119 and PN 123.
- PN 135 Transition to Employment (6 - 24) 3 Cr. Hrs. (4 Weeks)
 Emphasis will be on functioning with greater independence in providing care for a group of patients. In supervised practice students will have an opportunity for advanced experience in providing patient care as a member of the nursing team while working with staff personnel.
 Prerequisite: PN 128 and PN 130.

PSYCHOLOGY

Associate Dean: Midge Carleton, MS
 Instructors: Professor Walter Hoffmann, MEd
 Associate Professor Robert Schaden, PhD
 Adjunct Faculty

- PSYCH 153 Human Relations (3 - 0) 3 Cr. Hrs.
 This course is designed particularly for students in the Career Curricula. The course focuses upon a better understanding of human behavior as related to interpersonal relations on the job. Foundations of human behavior, strategies for effective human relations, fundamental skills of working as a team leader and team member, and ways of anticipating, preventing, and coping with challenges of human relations are major areas of study.
 Prerequisite: None.
- PSYCH 201 General Psychology (4 - 0) 4 Cr. Hrs.
 Principles of human thought and action with emphasis on individuals in their environment; individual differences in intelligence and personality; effects of heredity and environment on the organism; the nervous systems, learning, intelligence, perception, motivation, social relationships, feelings and emotions.
 Prerequisite: Twenty-six hours of transferable credit or consent of department. Successful completion of a political science course and biology (BIOL 101) recommended.
- PSYCH 205 Psychology of Adjustment (3 - 0) 3 Cr. Hrs.
 Factors and processes involved in the adjustment of the individual to personal and social environment are the main focuses of this course. Essentials for the development of an effective and mentally healthy individual are emphasized. Foundations for adjustment, personal life-style adjustment, interpersonal relationships, adjustment throughout life and coping with maladjustment are major areas of study.
 Prerequisite: Twenty-six hours of transferable credit or consent of department.
- PSYCH 209 Child Psychology (3 - 0) 3 Cr. Hrs.
 General characteristics of development, development of social behavior, feelings, emotions, language, growth of understanding and interests, with emphasis upon personality and problems of adjustment.
 Prerequisite: PSYCH 201.
- PSYCH 219 Psychology of Aging (3 - 0) 3 Cr. Hrs.
 This course studies late adult development and aging. It focuses on the developmental changes relates to biological, psychological, and social processes. Coping strategies and intervention techniques will be examined.
 Prerequisite: Twenty-six hours of transferable credit or consent of department. Successful completion of PSYCH 201 highly recommended.

QUALITY MANAGEMENT

Associate Dean: Fernon P. Feenstra, EdS
Instructors: Adjunct Faculty

- QM 106 Introduction to Quality Systems (3 - 0) 3 Cr. Hrs.
Introduction to quality improvement practices in business, technology and service industries including the ability to respond to signals resulting from complex system analysis. Through the enhancement of knowledge and using basic problem-solving techniques, including Cause and Effect diagrams, Pareto diagrams, Scatter diagrams, and related analytical methods, students develop a better understanding of effective problem-solving techniques applicable to manufacturing and non-manufacturing industries.
Prerequisite: None.
- QM 107 Quality Planning and Team Building (3 - 0) 3 Cr. Hrs.
Planning effective quality systems including error prevention through team building to support both recommended procedures and customer satisfaction is emphasized. Students will be introduced to planning methods, Quality Function Deployment (QFD), Failure Mode and Effects Analysis (FMEA), and new quality related programs used in process/product development validation. Control plans and teamwork will be used to demonstrate the dynamics of synergism in groups.
Prerequisite: None.
- QM 108 Quality Statistical Methods (3 - 0) 3 Cr. Hrs.
Analysis related to statistical process control (SPC) and other analytical techniques are directed toward defect prevention, systems improvement and customer satisfaction. Students will be introduced to statistical methods, theory and charting including X-bar and R, P, NP, C & U and their application. Topics also include process identification and capability (CpK) analysis.
Prerequisite: MATH 112.
- QM 112 Facilitating Quality Systems (3 - 0) 3 Cr. Hrs.
Managing and facilitating effective quality systems requires a systematic approach to employee commitment. Topics include identifying strengths and weaknesses in current systems, establishing plans, confirming objectives, training for team effectiveness and methods of feedback analysis to support efforts in Total Quality Management.
Prerequisite: Consent of department.



RELATED TRADES INSTRUCTION

Director: Bruce W. Sweet, MA
 Coordinator: Professor Gerald F. Cavanaugh, MA
 Instructors: Adjunct Faculty

The Related Trades Instruction (RI) courses usually meet only once per week on the Livonia Campus for either one or two hours. Schoolcraft College uses a modified trimester system with each Fall and Winter semester operating 16 weeks and an 11 week spring session. There are generally no summer classes for the Related Trades program. Some RI courses are used in the Quality Management and the Welding Certificate programs.

MATHEMATICS - RI

- RI 110 Shop Mathematics (2 - 0) 2 Cr. Hrs.
 A basic course in arithmetic which reviews or develops basic concepts in numbers and their usage. Whole numbers, fractions, and decimals are used in addition, subtraction, multiplication, and division of practical industrial shop problems. Metric conversion, square roots, squares, usage of math tables and hand calculators are also introduced. Note: This course recommended to Welding students.
 Prerequisite: None.
- RI 120 Algebra (2 - 0) 2 Cr. Hrs.
 This course addresses the concepts of addition, subtraction, multiplication, and division of algebraic expressions; the treatment of signs, exponents, and roots; factoring, formulas, equations, solving for unknowns and quadratic equations. Solving ratios, proportions, percentages, and algebraic fractions are also included. Note: This course is included in the Welding Program.
 Prerequisite: RI 110 or equivalent.
- RI 131 Plane and Solid Geometry (2 - 0) 2 Cr. Hrs.
 The fundamentals, proofs, and theorems pertaining to basic geometric forms and principles for problem solving are examined in this course. Emphasis is placed on shop problems requiring geometric solutions.
 Prerequisite: RI 120.
 Corequisite: RI 140.
- RI 140 Right Angle Trigonometry (1 - 0) 1 Cr. Hr.
 This course covers trigonometric functions of right triangles and the use of tables. Complete familiarization in usage of function, simple shortcut procedures and pocket charts are used or developed. Emphasis is placed upon the use of hand calculators.
 Prerequisite: RI 120.
 Corequisite: RI 131.

- RI 146 Advanced Trigonometry (2 - 0) 2 Cr. Hrs.
 This is a course showing the relationship between functions of angles. Solution of oblique triangles are used with standard formulas. Covered also are calculation of inscribed figures and tangent conditions. Checking shapes and gages (such as dovetails and v-blocks) with precision balls or rolls is also addressed.
 Prerequisite: RI 140 and RI 131.
- RI 151 Compound Angles (2 - 0) 2 Cr. Hrs.
 This course reviews principles of geometry and trigonometry as applied to inclined and oblique surfaces. The course then examines identification and classification of all solid figures into major groups. Use of sine plate, setup, and application with practical shop problems using compound angles in theory and practice are demonstrated in the classroom.
 Prerequisite: RI 146.

ELECTRICAL AND ELECTRONICS - RI

- RI 217* D.C. Generators, Motors and Controls - DC (2 - 0) 2 Cr. Hrs.
 This course analyses magnetism and magnetic fields, electric and magnetic circuit comparisons, describes direct current instruments and measurements, inductance and electromagnetic induction, dielectric circuits, generation of D.C. electromotive force, and types of D.C. motors. Use of D.C. generators and motors to control industrial processes is fully described.
 Prerequisite: ELECT 127 and ELECT 128.
- RI 219* A.C. Polyphase Systems, Circuits and Transformers (2-0) 2 Cr. Hrs.
 This course draws comparisons between single-phase and polyphase systems and equipment, generation of polyphase voltages and power in three-phase balanced systems. Described also are balanced and unbalanced delta, wye and four wire wye, complex alternating current waves, non-sinusoidal waves and their affect on power factors. Effective power and presentation of measuring instruments is covered with problem solving emphasized.
 Prerequisite: ELECT 127 and ELECT 128.
- RI 220* National Electrical Code - N.E.C. (2 - 0) 2 Cr. Hrs.
 A study of the rules as they apply to five basic electrical areas with the prime emphasis on the code for commercial and industrial locations. The five areas of study are: Single-family dwellings, multifamily dwellings, commercial locations, industrial locations, and specialized and hazardous locations.
 Prerequisite: ELECT 127 and ELECT 128.
- RI 222* A.C. Motors (2 - 0) 2 Cr. Hrs.
 Polyphase induction motors, alternators, polyphase synchronous motors, single-phase motors, full load currents for all types of motors, and motor ratings are studied.
 Prerequisite: RI 219.
- RI 224* A.C. Controllers (2 - 0) 2 Cr. Hrs.
 Schematic drawings interpreting principles of relay logic for A.C. manual and automatic starters and relay control systems are studied in this course.
 Prerequisite: RI 219.

* Offer as needed.

- RI 225* Electrical Construction Wiring (2 - 0) 2 Cr. Hrs.
A "How to Wire" course on electrical construction wiring, including the latest accepted changes in wiring per National Electrical Codes - N.E.C. allowances. This course is only intended for apprentice electricians, electrical tradepersons and trainees.
Prerequisite: ELECT 127 and ELECT 128.
- RI 234* Electronic Solid State Devices (2 - 0) 2 Cr. Hrs.
An introduction to the basic building blocks of solid state circuits, some of which are: the transistor, diode, LED, SCR, UJT, FET, TRIACS, DIACS, and Op-amps. The use of these electronic components in elementary circuits will be used to aid in the understanding of their characteristics.
Prerequisite: ELECT 127 and ELECT 128.
- RI 236* Introduction to Programmable Controllers (2 - 0) 2 Cr. Hrs.
The Binary number system, logical building blocks (and, nand, or, nor, D, and D-K flip-flops) and truth tables are introduced and studied. Programming and repair of the most common types of controllers are included.
Prerequisite: RI 234.
- RI 237* Introduction to Digital Electronics (2 - 2) 4 Cr. Hrs.
The major purpose of this course is to provide the student with basic knowledge of digital electronics which can lead to a better understanding of modern industrial control applications. Areas of study include diodes, transistors as switches, basic gates, flip-flops and shift register. The student will gain experience in the use of the oscilloscope, the VOM and the various I.C. chips.
Prerequisite: RI 236.

HYDRAULICS AND PNEUMATICS - RI

- RI 251 Fundamentals of Hydraulics and Pneumatics (2 - 0) 2 Cr. Hrs.
An analysis of fluid mechanics is conducted in this course as well as a study of basic laws related to fluid flow, USASI symbols, basic circuit diagramming, the power cylinder, the power source, fluid power plumbing, filtration, regulation and valves.
Prerequisite: None.
- RI 253 Fluid Power Components (2 - 0) 2 Cr. Hrs.
This course examines air-oil boosters, intensifiers, accumulators, power sources, power and control systems, circuit connections, fluid conditioning. It also introduces troubleshooting on these components.
Prerequisite: RI 251 or ELECT 135 substituted for RI 251 and RI 253.

MACHINE OPERATIONS - RI

- RI 300 Industrial Shop Safety (1 - 0) 1 Cr. Hr.
An industrial safety course in which a study of accidents involving the foundation, sequence, and their causes are analyzed. Techniques of accident prevention are developed and then applied to practical situations. OSHA and MIOSHA regulations are used as a foundation of study.
Prerequisite: None.
- RI 301 Industrial First Aid (1 - 0) 1 Cr. Hr.
This course is designed for those persons who work in an industrial setting. It covers prevention of accidents and care of victims in emergencies. It is a lecture and demonstration course on first aid measures for wounds, shock, burns, unconscious conditions, artificial respiration, and transportation. Recognition of symptoms for various problems including appendicitis, blisters, boils, insulin reaction etc. help students meet requirements for OSHA, MIOSHA, or an American Red Cross Emergencies Certificate. (See PE 121 First Aid course)
Prerequisite: None.
- RI 303 Machining Theory (2 - 0) 2 Cr. Hrs.
Students will study the basic tools of machine operations including the use of hand tools and materials identification.
Prerequisite: None.
- RI 305 Advanced Machining Theory (2 - 0) 2 Cr. Hrs.
This course is a continuation of Machining Theory, RI 303. Subject areas include: cutting tool theory (physics of metal cutting), high speed steel, cast tools, carbide, cutting fluids, chip formation, cutting tool shapes, economics of cutting tools, jig boring, grinding and milling, and chipless machining.
Prerequisite: RI 120 and RI 303.
- RI 307 Machinery Handbook (2 - 0) 2 Cr. Hrs.
This course teaches industrial workers how to use and apply handbook data to their occupation. Attention is focused on the handbook as a valuable reference for succeeding courses and shop applications.
Prerequisite: RI 120 and RI 303.
- RI 308 Manufacturing Measurements (2 - 0) 2 Cr. Hrs.
This course is designed to provide students the opportunity to study and use the principles and equipment required for the measurement and inspection of parts produced in manufacturing. Theory and lectures are used to explain the principles and use for equipment. Laboratory time is used for the practical use and demonstration of equipment studied to measure and inspect parts or tools that manufacture parts. Both Inch and Metric systems will be covered and compared in the manufacturing process.
Prerequisite: RI 120 and RI 305.
- RI 322 Die Theory, Non-Drafting (2 - 0) 2 Cr. Hrs.
An introduction into the metal working processes of: hot working and cold working, extrusion of metals, forging, metal shearing, bending, swagging, sizing, coining, and hobbing. Also, application of presses: press tools and accessories; die set, punch holder, die shoe, stripper plate knockout are studied. Forming, drawing, flanging, piercing, knockout dies are clarified. Blanking dies, trimming dies, compound dies, compression dies, and progressive dies are also covered.
Prerequisite: RI 305.

- RI 360 Machining Operations (0 - 2) 2 Cr. Hrs.
This is an examination of the fundamentals in the operation of lathes and milling machines as applied to shop problems. This course provides practical experience in the problems traceable to drafting techniques and offers familiarization and utilization of all general machine equipment of the shop on a rotational basis.
Prerequisite: RI 303.
- RI 364 Advanced Machining Operations (0 - 2) 2 Cr. Hrs.
This course will be tailored to fit the experience and background of the individual, so as to provide the machining experience they may not have had previously. Machine operations, such as spiral milling, internal thread cutting, acme, square, and buttress threading, wheel dressing in angular and radii, finish grinding, spline cutting and other dividing head work are included. The mathematics of these operations is stressed.
Prerequisite: RI 305 and shop experience.

- RI 441 Fundamentals of Die Design (2 - 0) 2 Cr. Hrs.
This is an applications course in the principles of press working tools such as, cutting, piercing, forming and drawing dies. Analysis of the designing procedure from the scrap strip to the assembly drawing is fully described.
Prerequisite: RI 424.
Corequisite: RI 322.
- RI 444 Geometric Dimensioning and Tolerancing (G.D. & T.) (2 - 0) 2 Cr. Hrs.
This course provides application of principles in geometric dimensioning and tolerancing. Fundamentals including concepts of maximum material condition, virtual size, geometric symbols and their interpretation, with analysis of mating parts are fully described. Course is based on American Society for Manufacturing Engineers Y14.5M-1994 standards.
Prerequisite: RI 400 and machine experience helpful.

DRAFTING AND RELATED PRINT READING - RI

- RI 400 Machine Trades Print Reading (2 - 0) 2 Cr. Hrs.
This course develops a person's ability to interpret manufacturing prints. Topics covered include: third angle projection, type of lines, dimensions, sloping surfaces and angles, tolerances and allowances, thread representation, types of sections, specifications and stock lists, auxiliary views, assembly drawings and details. Note: This course is included in the Welding Program.
Corequisite: RI 110 or equivalent.
- RI 402 Advanced Machine Trades Print Reading (2 - 0) 2 Cr. Hrs.
This is an advanced print reading course with emphasis on assembly drawings. A continuation of Machine Trades Print Reading - RI 400, drafting conventions, symbols, and drafting standards which include geometric dimensioning are taught based on ANSI standards.
Prerequisite: RI 400 and shop experience.
- RI 411 Fundamentals of Drafting (2 - 0) 2 Cr. Hrs.
This course introduces the use of lettering, freehand sketching, and technique in drawing with various line conventions. Students learn the proper usage of drawing instruments in mechanical drawing, geometric construction, laying out of orthographic projection, and dimensioning of common three views. Shop drawings, sectioning, and reference line projection are included as is an introduction to ANSI drafting standards.
Prerequisite: None.
- RI 413 Advanced Drafting, Applied Descriptive Geometry (2 - 0) 2 Cr. Hrs.
This is an application of principles of descriptive geometry to engineering and shop drawing. Solving problems of structures and dimensioning of parts is included and oblique positions are explored. First and second auxiliary views are stressed.
Prerequisite: RI 411.
- RI 424 Fundamentals of Detailing (2 - 0) 2 Cr. Hrs.
The construction of detail from drawings which include all necessary views with dimensions is the main focus of this course. Sketching, assembly drawings, and standard conventions are utilized. Geometric dimensioning is introduced as well.
Prerequisite: RI 411.

METALLURGY - RI

- RI 500 Characteristics of Metal (2 - 0) 2 Cr. Hrs.
A general theory course which provides a basic understanding of the properties and behavior of metals, their crystalline structure, the theory of alloys, and the physical testing procedures for metals and alloys. Note: This course is included in the Welding Program.
Prerequisite: None.
- RI 502 Heat Treatment of Metals (2 - 0) 2 Cr. Hrs.
A partial lab course which provides an understanding of the properties, applications and heat treatment of tool and die steels, including water hardening, oil hardening and air hardening, and high speed steels. Lab demonstrations are included.
Prerequisite: RI 500.

| SCHOOLCRAFT COLLEGE PROGRAMS | CODE # |
|--|----------|
| Bakery Maintenance Mechanic | RI.00084 |
| Dairy Plant Maintenance/Mechanic | RI.00209 |
| Die Maker | RI.00077 |
| Die Tryout/Punch Finisher | RI.00199 |
| Drafting Design | RI.00195 |
| Forging | RI.00174 |
| Industrial Electrician | RI.00098 |
| Industrial Systems Maintenance | RI.00208 |
| Machine Builder/Repair | RI.00091 |
| Machine Repair/Machinist | RI.00191 |
| Machinist All Around | RI.00094 |
| Metal Model Maker | RI.00187 |
| Quality Systems | RI.00205 |
| Sheet Metal Worker | RI.00090 |
| Tool and Die Maker | RI.00076 |
| Tool Maker/Gages | RI.00186 |
| Tool Maker/Machinist | RI.00194 |
| Welder/Fabricator | RI.00190 |
| Wood Model Maker/Patternmaker | RI.00188 |

SOCIOLOGY

Associate Dean: Midge Carleton, MS
 Instructor: Assistant Professor Josselyn Moore, MA
 Adjunct Faculty

- SOC 201 Principles of Sociology (3 - 0) 3 Cr. Hrs.
 A survey of the major theoretical perspectives, concepts, and methods of sociology. Topics include social organization, culture, socialization, stratification systems, social institutions and social change.
 Prerequisite: None.
- SOC 205 Social Problems (3 - 0) 3 Cr. Hrs.
 Consideration of current social problems, such as family stability, racism, sexism, poverty, crime, urbanization, and ecological problems using sociological theory and recent empirical studies. Analysis of sociocultural factors underlying these problems and possible solutions.
 Prerequisite: SOC 201.
- SOC 209 Marriage and Family (3 - 0) 3 Cr. Hrs.
 A study of the impact that changes in society have had on gender roles, sexual relationships, marriage, and family life. Considers diversity in family patterns, norms, and values. Topics include gender roles, sexual behavior, mate selection, problems of marital adjustment, family stability and crisis, divorce and parenting.
 Prerequisite: None.
- SOC 220 Urban Sociology (3 - 0) 3 Cr. Hrs.
 A survey of the origin and development of cities and the processes of urbanization. A discussion of the ecology and social organization of urban life. The special problems and realities of urban society will be covered as well as perspectives for the future.
 Prerequisite: SOC 201 or ANTH 112.
- SOC 290 The Individual and Community: An Honors Capstone Course (3 - 0) 3 Cr. Hrs.
 A required conclusion to the Schoolcraft Scholars honors program, this capstone course examines individual, social, structural, and social institutional relationships through multiple disciplines. Students will identify and analyze social and cultural trends and issues. During the course, students will complete and present results of service-learning projects.
 Prerequisite: HUM 190.

SPANISH

Associate Dean: Jeanne Bonner, MS
 Instructor: Professor Roberta Holtzman, MA
 Instructor Andrea McGlone, MA
 Adjunct Faculty

- SPAN 101 Elementary Spanish (4 - 0) 4 Cr. Hrs.
 Fundamentals of pronunciation, basic grammar structure and essential vocabulary; particular emphasis placed on speaking and understanding Spanish; practice in written Spanish given by means of dictation and easy translation; required language laboratory assignments.
 Prerequisite: None.
- SPAN 102 Elementary Spanish (4 - 0) 4 Cr. Hrs.
 Continuation of SPAN 101. Continued emphasis on the spoken language and reading of graded materials in Spanish for comprehension without translation; extensive use of Spanish in the classroom; written composition; required language laboratory assignments.
 Prerequisite: One year of high school Spanish or a grade of 2.0 or better in SPAN 101 or with consent of instructor.
- SPAN 201 Intermediate Spanish (4 - 0) 4 Cr. Hrs.
 Continuation of SPAN 102. Review and application of essential principles or written exercises; intensive practice of the spoken language; reading of representative Spanish prose for comprehension; development of ability to read rapidly without translation; required language laboratory assignments.
 Prerequisite: Two years of high school Spanish or a grade of 2.0 or better in SPAN 102 or with consent of instructor.
- SPAN 202 Intermediate Spanish (4 - 0) 4 Cr. Hrs.
 Continuation of SPAN 201. Emphasis on oral skill, conversation, and reading without translation; required language laboratory assignments.
 Prerequisite: Three years of high school Spanish or a grade of 2.0 or better in SPAN 201 or with consent of instructor.

THEATRE

Associate Dean: Jeanne Bonner, MSA
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 16 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 a scholarship to a graduating high school senior from the College district with renewal on a semester basis. Seniors wanting to apply for a theatre scholarship may do so from February 1 through April 15 of any calendar year.

Since September 1977, the Theatre Department has adopted a dinner-theatre format for production and provides an exciting experience in this popular kind of entertainment; usually two-three plays are produced annually.

- THEA 101 Introduction to Theatre (3 - 0) 3 Cr. Hrs.
A survey course which examines all the elements of theatre: actor, director, playwright, scenery, costumes, makeup, lighting, sound, audience, theatre publicity, theatre management, and critic.
Prerequisite: None.
- THEA 120 Theatre Activities (1 - 0) 1 Cr. Hr.
Brief introduction to theatre activities, including primarily technical and dramatic production with minimum hours spent working on or in the current production.
Prerequisite: None.
- THEA 121 Theatre Activities (1 - 0) 1 Cr. Hr.
Continuation of THEA 120.
Prerequisite: THEA 120.
- THEA 204 Stage Makeup (2 - 0) 2 Cr. Hrs.
An introductory course in stage makeup application. The course covers basic makeup, character makeup, old-age makeup, and special effects. Discussion on types of makeup and practical student application projects.
Prerequisite: None.

- THEA 207 Stagecraft and Lighting (3 - 0) 3 Cr. Hrs.
Technical aspects of play production, including principles of scene design, set construction, painting, lighting, sound, costuming and makeup.
Prerequisite: None.
- THEA 208 Acting 1 (3 - 0) 3 Cr. Hrs.
A beginning course preparing the actor for acting. Training in voice and body development that not only is applicable to the stage, but to daily life. Exercise work in concentration, relaxation, awareness, sensitivity and body alignment. This exercise work is applied to scene work from modern drama.
Prerequisite: None.
- THEA 209 Acting 2 (3 - 0) 3 Cr. Hrs.
An advanced course in the preparation of an actor for acting. Training in voice and body development, with an emphasis on studying and applying the Stanislavski Method and the Alexander Technique of body alignment. Presentation of scenes from classical and modern plays.
Prerequisite: THEA 208.
- THEA 220 Theatre Activities (1 - 0) 1 Cr. Hr.
Continuation of THEA 121.
Prerequisite: THEA 121.
- THEA 221 Theatre Activities (1 - 0) 1 Cr. Hr.
Continuation of THEA 220.
Prerequisite: THEA 220.
- THEA 231 History of Theatre (3 - 0) 3 Cr. Hrs.
The development of dramatic art and practice from ancient times to the present, stressing the evolution of the physical theatre and dramatic forms in relation to contemporaneous production facilities and innovations.
Prerequisite: None.
- THEA 241 Oral Interpretation of Literature (3 - 0) 3 Cr. Hrs.
This course is designed to give the student an understanding of Oral Interpretation of Literature through a twofold technique: one, by practical experience in interpretive readings in various types of literature, and two, by the study of techniques used in the textbook. The class emphasizes the performance of literature through the use of the voice and body.
Prerequisite: THEA 208 or COMA 103.



WELDING

Associate Dean: Fernon P. Feenstra, EdS
Instructor: Adjunct Faculty

- WELD 113 Shielded Metallic Arc Welding (S.M.A.W.) (2 - 2) 3 Cr. Hrs.
Theory and fundamentals of oxy/fuel cutting, welding, soldering, brazing; resistance and shielded metallic arc welding, joining and fabrication. Emphasis on basic skill development and the establishment of sound work habits. Designed to provide the foundation for more advanced welding courses.
Prerequisite: None.
- WELD 115 Gas Metallic Arc Welding (G.M.A.W./M.I.G.) (2 - 2) 3 Cr. Hrs.
Theory and fundamentals of gas metallic arc welding, commonly referred to as M.I.G. This method of fusion of metals is used as the fastest growing segment of the metalworking industry. Emphasis on skill development and the establishment of sound work habits. Designed to provide entry level employability and a solid foundation when selecting more advanced welding courses.
Prerequisite: WELD 113 or consent of department.
- WELD 119 Gas Tungsten Inert Arc Welding (G.T.A.W./T.I.G.) (2 - 2) 3 Cr. Hrs.
Theory and fundamentals of gas tungsten arc welding (G.T.A.W.). This method of metal fusion is capable of producing very high quality welds in virtually all metals and one of the few methods of welding some of the more difficult to weld metals. Designed to provide entry level employability and solid foundation for more advanced courses.
Prerequisite: WELD 113 or consent of department.
- WELD 120 Advanced Processes - Stick Electrode/M.I.G. Welding (2 - 2) 3 Cr. Hrs.
The student will gain additional knowledge and experience in shielded metallic and gas metallic arc welding. Welding will be performed in all positions; flat, horizontal, vertical and overhead. The class will introduce the student to pipe cutting and pipe welding on heavy sections. Material will be formed and fabricated using power and hand operated tools and equipment. Students will design, cost estimate, procure materials and fabricate a student project.
Prerequisite: WELD 115 or consent of department.
- WELD 130 Advanced Processes - Gas Tungsten, Ceramic and Polymer Welding (2 - 2) 3 Cr. Hrs.
Tungsten arc welding of high carbon steel, tool steels, stainless steel, aluminum, magnesium and copper. Plasma cutting of ferrous and nonferrous materials will be stressed. Metal surfacing including thermal spraying, bonding ceramics and polymers by fusion and adhesion.
Prerequisite: WELD 119, RI 500 or consent of department.

PREPARATION FOR WELDING CERTIFICATION EXAMINATION(S)

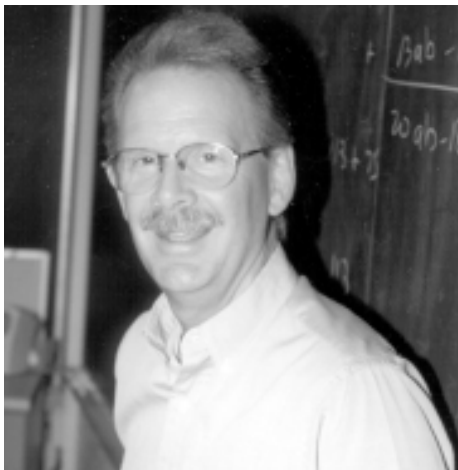
There is a greater need today than ever before for "certified welders" who demonstrate their competence by passing performance examinations of their work. Although Schoolcraft College is not in the business of qualifying or certifying welders, we can duplicate these tests, provide instruction in the 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 department.
- WELD 213 Preparation for Welder Certification in S.A.W. (2 - 2) 3 Cr. Hrs.
Prerequisite: WELD 130 or consent of department.
- WELD 214 Preparation for Welder Certification in Pipe Welding (2 - 2) 3 Cr. Hrs.
Prerequisite: WELD 130 or consent of department.
- WELD 223 Fabrication - Student Project (2 - 4) 4 Cr. Hrs.
Fabrication of student/instructor selected project(s). 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 the student to further investigate other industrial welding processes.
Prerequisite: WELD 130, RI 120, RI 400 or consent of department.



Schoolcraft College

Schoolcraft College Personnel





Schoolcraft College Personnel

Administrators

- BARCUS, DAVID L. 2000**
Executive Director of Development
BA, MA Bowling Green University
- BEAUDOIN, MARY 1974**
Bursar
AAS Schoolcraft College
- BONNER, APRIL 1981**
Director of Administrative Computing
AAS Schoolcraft College
BS Madonna University
MS Walsh College
- BONNER, JEANNE 1968**
Associate Dean of Liberal Arts,
Independent & Distance Learning
BA and AMLS University of Michigan
MSA Central Michigan
- BRAUN, SHARON 1992**
Director of College Centers
AA Schoolcraft College
BS Eastern Michigan University
- CARLETON, MIDGE 1980**
Associate Dean of Sciences
RN Burbank Hospital School of Nursing
BS Fitchburg State College
MS University of Detroit
- COSSIN, CHARLES W. JR. 1987**
Director of Technology &
Telecommunication Services
AAS Schoolcraft College
- DAIEK, DEBORAH B. 1998**
Assistant Dean-Academic &
Assessment Services
BA and MEd Western Michigan University
PhD Wayne State University
- FEENSTRA, FERNON P. 1964**
Associate Dean of Business and Technology
BS and MA Western Michigan University
EdS University of Michigan
- GANS, MARVIN 1964**
Assistant Dean,
Continuing Education Services
BA Hunter College-University of New York
City, MA and EdS University of Michigan
PhD University of Utah
- GILBERT, BETTY J. 1986**
Executive Director of Human Resources
AAS Oakland Community College
BS Detroit Institute of Technology
MA Central Michigan University
- GRIFFITH, RONALD L. 1971**
Dean of Educational Services
BS and MEd Morehead State University
- JEFFRESS, CONWAY A. 1982**
Vice President for Instruction &
Student Services
BA Washington and Jefferson College
MEd and PhD University of Pittsburgh
- LILLEY, JEFFREY 1987**
Director of Accounting
BS Lawrence Technological University
- LUPO, SUSAN 1993**
Director of Workforce Development
BS and MA Eastern Michigan University
- MCDOWELL, RICHARD W. 1981**
President
BS and MEd Indiana University
of Pennsylvania
MS and PhD Purdue University
- MONGE, JOHN A. 1997**
Director of Public Safety
BS Madonna University
MSA Madonna 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**
Executive Director of Financial Services
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 1990**
Director of Technical Programming
AAS Schoolcraft College
- POLKOWSKI, JAMES 1986**
Director of Purchasing
BS Wayne State University
- RABY III, ADELARD H. 1981**
Vice President for Business Services
BS and MBA Wayne State University
- RANDALL, RONALD E. 1969**
Registrar
AA Schoolcraft College,
BS Madonna University,
MA Eastern Michigan University
- REEVES, BARBARA 1991**
Director of College Bookstores
AAS Schoolcraft College,
BA Walsh College,
MBA Eastern Michigan University
- REIBLING, LOUIS A. 1980**
Dean of Instruction
BA Thomas More College
MEd Catherine Spaulding College
PhD St. Louis University
- SAVAGE, THOMAS S. 1985**
Director of Food Service
AA Henry Ford Community College
BA Michigan State University
- SIGWORTH, DENISE 1985**
Executive Director of Grants and Research
BS Eastern Michigan University
MA University of Michigan
- STANEK, GAYLE 1973**
Director of Instructional Support Services
BA Michigan State University
- SWANBORG, NANCY K. 1989**
Director of Women's Resource Center
BS State University at New York
MA Marygrove College
- SWEET, BRUCE 1985**
Director of Business and Industrial Services
BS and MA Central Michigan University
- THOMAS, NOREEN M. 1999**
Executive Manager of
Marketing and Development
BS Daemen College
MA Eastern Michigan University
EdD University of Texas
- TITUS, JOHN 1997**
Director of Student Advisement Services
BS Urbana College
MS Wright State University
- TOBIN, JULIEANNE RAY 1995**
Director of Enrollment Management
BA Wayne State University
MSA Central Michigan University
- TOMEY, JOHN B. 1974**
Dean of Student Services
BS and MBA University of Detroit
- WAVREK, DIANE M. 1967**
Director of College Disbursements
AAS Schoolcraft College
- WIELECHOWSKI, ROBERT A. 1988**
Director of Physical Plant
AS Schoolcraft College
BET Wayne State University
- WILTRAKIS, FRANK P. 1985**
Executive Director of Information Services
AS Henry Ford Community College
- ZYLKA, SHERYL 1980**
Assistant Dean
Continuing Education Services
AS Schoolcraft College
BS University of Michigan
MA Eastern Michigan University

Full-Time Faculty

- ABBAS, MOHAMMED, 1991
Associate Professor, Biology
BS Baghdad University, MS Purdue University, PhD Wayne State University
- ADDI, OMAR, 1990
Associate Professor, English
BA University of Mohamed V, Rabat, Morocco, MA SUNY
- ANDERSON, ROGER F. 1968
Professor, Biology
AA Mott Community College
AB and MS University of Michigan
- ARSZNO, JANET M. 1996
Assistant Professor, Mathematics
BS and MA University of Michigan
MA Eastern Michigan University
- BAKER, STUART C. 1973
Counselor/Associate Professor
AA Henry Ford Community College
BBA Western Michigan University
MA University of Michigan
- BALFOUR, LINDA M. 1990
Associate Professor, Mathematics
BA and MA Eastern Michigan University
- BEARDEN, LOIS J. 1990
Associate Professor, Mathematics
BA and MA University of Michigan
- BLOOM, BRADLEY R. 1968
Professor, Music
AA Grand Rapids Community College
BM and MM University of Michigan
DMA University of Iowa
- BRIGGS, ROBERT A. 1967
Professor, History
BA Dartmouth College
MAT Johns Hopkins University
- BROWN, WILBUR, 1991
Associate Professor
Computer Information Systems
BS Virginia Union University
MA Central Michigan University
- BUCHANAN, GALE F. 1965
Librarian, Professor
BA and MALS University of Michigan
- BURKE, WILLIAM J. 1967
Professor, Political Science
AB David Lipscomb College
MA Vanderbilt University
- BURRELL, GRAHAM C. 1975
Librarian, Professor
BA and MLS University of Michigan
- BUTKEVICH, NICKOLAS 1995
Assistant Professor, Biology
BS and MS Eastern Michigan University
- CAMPBELL, TAMARA 1995
Assistant Professor, Nursing
BSN Mercy College of Detroit
MSN University of Michigan
- CASE, COLLEEN M. 1996
Assistant Professor,
Computer Graphics Technology
BS University of Wisconsin, LaCrosse
MLS Eastern Michigan University
- CAVANAUGH, GERALD F. 1969
Related Trades Coordinator/Professor
BS Michigan State University
MA Eastern Michigan
- CHAUDHERY, SUMITA 1968
Professor, English
BA Howard University, MA Howard University, PhD University of Michigan
- CLACK, DONNA, L. 1988
Associate Professor,
Developmental Education
BA Wayne State University
MA Eastern Michigan
- COTTON, SHARON 1980
Professor, Accounting
BS and MBEd Eastern Michigan University
- DECKER, JOSEPH 1991
Associate Professor,
Culinary Arts Certified Master Pastry Chef
American Culinary Federation
- DOLGIN, STEVEN 1990
Professor, English
AA Oakton Community College
BA and MA Sangamon State University
CAS Northern Illinois University
DA Illinois State University
- ELLIS, TIMOTHY 1999
Instructor Computer Information Systems
BBA Eastern Michigan University
- FERMAN, CATHERINE 1992
Associate Professor, CAD/Drafting
BS, GMI and MS University of Michigan
- FLYNN-HAHN, DIANE E. 1996
Assistant Professor,
Child Care and Development
BS and MA Eastern Michigan University
- FRAYER, KENNETH A. 1987
Associate Professor, Criminal Justice
BS Wayne State University
MA University of Detroit
- GABRIEL, JEFFREY M. 1988
Associate Professor, Culinary Arts
AOS Culinary Institute of America
Certified Master Chef
American Culinary Federation
- GALPERIN, FREDERICK D. 1966
Professor, Economics
AB University of Michigan
MA and EdS Eastern Michigan
- GARRETT, EVAN D. 1968
Professor, History
BA State University of Iowa
MA University of Michigan
- GAWRONSKI, KEVIN P. 1982
Associate Professor, Culinary Arts
AAS Schoolcraft College
Certified Master Chef
American Culinary Federation
- GIBBONS II, CHARLES 1993
Associate Professor, Metallurgy
AAS Wayne State University
- GORDON, RICHARD A. 1969
Professor, English
BS and MA St. Louis University
- GRIFFIN, SHARON Y. 1988
Associate Professor, Nursing
BSN Mercy College
MSN Wayne State University
- HARRIS, MARK C. 1997
Assistant 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
- HAWKINS, CHERYL D. 1996
Assistant Professor, Occupational Therapy
BS Eastern Michigan University
MS Wayne State University
- HIKSON, DUMONT F. JR. 1964
Professor, English
BA University of Michigan
MA Michigan State University
- HOFFMANN, WALTER O. 1964
Professor, Psychology
AB Hiram College
MEd Wayne State University
- HOLTZMAN, ROBERTA L. 1964
Professor, French/Spanish
BA Wayne State University
MA University of Michigan
MA Wayne State University
- HOWIE, CEDRIC 1991
Associate Professor, Economics
BA University of North Carolina,
MS Murray State University
- HUGELIER, DANIEL 1991
Associate Professor, Culinary Arts
Certified Master Chef
American Culinary Federation
- HURICK, PATRICIA 1997
Counselor, Instructor
BA Wayne State University
MA Eastern Michigan University
- KAPLAN, SUZANNE B. 1964
Professor, English
BA and MA Wayne State University
- KAPPEN, ORVILLE H. 1989
Associate Professor, Criminal Justice
AAS Henry Ford Community College
BA University of Michigan
MA Eastern Michigan University
- KAVANAUGH, EDWARD A. 1982
Professor, Mathematics
BS University of Michigan
MA University of Michigan
- KERR, SANDRA J. 1994
Associate Professor, Mathematics
MA Wayne State University
BSE University of Michigan

- KIRKPATRICK, KENT 1992
Associate Professor, Political Science
BS and MA Eastern Michigan University
- KOLENDA, JANET M. 1971
Professor, Nursing
Registered Nurse, BSN Madonna University
- KRAMER, JAMES R. 1986
Professor, Lasers
BA, BS and MS Eastern Michigan University
- LESKO, JOHN S. JR. 1969
Professor, Physics
BS Fairfield University, MS St. Louis University, MEd University of Michigan
MA University of Michigan
- LINDENBERG, ARTHUR J. 1967
Professor, English
AB University of California
MFA University of Oregon
- MARROSO, MARLYNN J. 1998
Instructor, Nursing
AAS Henry Ford Community College
BSN University of Michigan
MSN Wayne State University
- MASCOLO, CHERYL S. 1996
Assistant Professor, Nursing
RN St. John's Hospital
BSN and MSN Oakland University
- MCBRIDE, RONALD E. 1974
Professor, Electronics
AAS Schoolcraft College
BS Eastern Michigan University
MA Eastern Michigan University
- MCGLONE, ANDREA L. 1999
Instructor, Spanish
BA and MA Michigan State University
- MCIPHERSON, DORIS 1992
Associate Professor
Computer Information Systems
BS, MA and Specialist
Eastern Michigan University
EdD Nova University
- MEHALL, MICHAEL J. 1998
Instructor, Computer Graphics Technology
BFA and MA Wayne State University
- MOORE, JOSSELYN 1995
Assistant Professor, Anthropology,
Archaeology, Sociology
BA Washington University
MA Hunter College City
University of New York
- MORELOCK, DONALD L. 1967
Professor, Music
BM University of Oklahoma
MM University of Michigan
- NAG, PRANTOSH, 1969
Professor, Economics
BA Scottish Church College
Calcutta University, India
MS and PhD University of Minnesota
- NATHAN, JOHN G. 1975
Professor, English
BA, MA, PhD Wayne State University
- NESBIT, DIANE P. 1985
Librarian, Associate Professor
AA Michigan Christian College
BA Marygrove College
MLS Wayne State University
- NICKELS, WILLIAM G. 1968
Professor, Chemistry
AA Henry Ford Community College
BS Eastern Michigan University
MAT Michigan State University
- NISSEN, JAMES C. 1996
Assistant Professor, Humanities
BM, MM, and AMD University of Michigan
- NUFFER, ROY A. 1987
Librarian, Associate Professor
BA and MSLS Wayne State University
- O'CONNELL, DIANE 1990
Associate Professor, Geography
BA College of William and Mary
MS Eastern Michigan University
- O'CONNOR, THOMAS A. 1990
Associate Professor, Biology
BA and MS Purdue University
PhD University of Washington
- ORICK, MICHAEL 1993
Associate Professor, Biology
BA University of Michigan, Dearborn
MA Eastern Michigan University
- PALM, MARY ALICE 1993
Associate Professor, English
AA Orange County Community College
BA University of Michigan
MA Eastern Michigan University
- PALMER, NANCY 1995
Assistant Professor, Nursing
BSN Mercy College of Detroit
MSN Wayne State University
- PARTYKA, PATRICIA A. 1978
Professor, Business
AAS Schoolcraft College
BS University of Detroit
MEd Wayne State University
- POLCYN, BRIAN D. 1997
Assistant Professor, Culinary Arts
Certified Executive Chef
American Culinary Federation
- POWELL, MARY S. 1966
Professor, English
BA Arkansas Tech University
MA University of Arkansas
- PRICER, WAYNE F. 1994
Librarian, Assistant Professor
ALA Oakland Community College
BA Madonna University
MSLS Wayne State University
- QUELL, ELIZABETH 1991
Associate Professor, Nursing
BSN University of Michigan
MSN Wayne State University
- RAMEY, LAVONDA G. 1985
Professor, Accounting
BBA and MBA University of Michigan
- REXIUS, JAMES E. 1978
Professor, Geology
BA University of Michigan
MS Eastern Michigan University
- ROGOWSKI, RONALD W. 1970
Counselor, Professor
BA, MS and MA University of Michigan
- RUBENSTEIN, RHETA N. 1996
Professor, Mathematics
BA University of Michigan
MEd and PhD Wayne State 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
- RYKTARSYK, DONALD A. 1964
Professor, Business
BS University of Detroit
MA University of Detroit
- SCHADEN, J. ROBERT 1993
Associate Professor,
Philosophy, Psychology
BA Sacred Heart Seminary,
Master of Divinity,
St. John's Provincial Seminary
MA University of Michigan
PhD Wayne State University
- SCHARMEN, LARRY L. 1985
Associate Professor
Biomedical Engineering Technology
BA Oakland University
MS Oakland University
- SCHELLER, JODY 1993
Associate Professor,
Health Information Technology
AS, BS and MS Mercy College of Detroit
- SCHWE, STEPHEN J. 1972
Professor, Physics, Astronomy
AS Henry Ford Community College
BSE and MA University of Michigan
MS Eastern Michigan University
- SCHLICK, WILLIAM 1995
Assistant Professor,
Computer Information Systems/
Electronics Technology
AAS Schoolcraft College
BEE Wayne State University
- SCHNEIDER, JANET M. 1989
Librarian, Associate Professor
BA University of Minnesota
MS Columbia University
MA University of Michigan
- SCHUETT, FAYE 1992
Associate Professor, English
BS Illinois State University
MA and PhD University of Tulsa

- SCHWARTZ, RANDY K. 1984
Professor, Mathematics
BA Dartmouth College
MA University of Michigan
- SIMMONS-SHORT, IDA 1990
Associate Professor, English
BA and MA University of Michigan
- SNYDER, CHERYL A. 1998
Assistant 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
- STEIN, JOANNE 1967
Professor, English
BA Mercy College of Detroit
MA Syracuse University
MA University of Michigan
- SZABO, SHARON F. 1981
Professor, Computer Information Systems
BS Indiana State University
MBEd Eastern Michigan University
- TAYLOR, JUJUAN C. 1989
Associate Professor, Communication Arts
BA Mercy College,
MA University of Detroit,
PhD Michigan State University
- THOMSON, ALEXANDER 1999
Instructor Political Science/History
BA & MA Wayne State University
- TURNAGE, PAUL A. 2000
Instructor, Computer Information Systems
AS Schoolcraft College
BSA University of Michigan
MS Eastern Michigan University
- UDRYS, JANINA 1973
Professor, Mathematics
BS Loyola University
MA Wayne State University
- VANDEWIELE-MILLIGAN, NANCY M. 1979
Professor, Occupational Therapy
BS Eastern Michigan University
MS University of Michigan
- VENDITTELLI, DEBORAH S. 1989
Associate Professor, Nursing
AA Lake Superior College
BSN Lake Superior State College
MSN University of Texas
- VUKMIROVICH, SYLVIA D. 1967
Counselor, Professor
BA, MEd and EdD Wayne State University
- WALE, JERRY C. 1973
Professor,
Computer Information Systems/
Electronics Technology
BSEE Lawrence Institute of Technology
MSEE University of Detroit
- WASHKA, JACK A. 1967
Professor, Health and Physical Education
BSEd Ohio University
MEd Ohio University
- WILLIAMS, LARRY G. 1969
Professor, Mathematics
BS and MA Bowling Green State University
- WILSON, GORDON L. 1968
Professor, English
BA Oregon State University
MA University of Oregon
- WITTEN, DOROTHY B. 1978
Professor, Child Care and Development
BA Wake Forest University,
MEd Wayne State University
- WITTEN, JOHN D. 1967
Counselor, Professor
BA Eastern Michigan University
MA University of Michigan
- WOODRUFF, CECIL C. 1970
Professor, Health and Physical Education
BA Central Michigan University
MA Central Michigan University
PhD University of Utah
- WOROSZ, GREGORY J. 1969
Professor, Business
BBA and MBA University of Michigan
- WROBLE, STEPHEN A. 1991
Associate Professor, Art
Computer Graphics Technology
BFA Michigan State University
MA Wayne State University

Support Staff

- ADAMS, SUSAN 1991
Secretary III
- ADDISON, JOHN 1985
General Maintenance
- ALLEN, ANNE 1991
Primary Caregiver
- ANCHOR, ELIZABETH 1997
Marketing and Development Assistant
- ANDERSEN, GERALDINE 1997
Counseling Office Assistant
- ANDERSON, BRUCE 1999
Electronic Technician
- ANGERMEIER, KERSTIN 1999
Export Specialist
- APPLE, ROSE 1999
Secretary III
- BARNES, FRANCES 1992
Utility II
- BERENDT, AMY 1989
Human Resources Technician
- BERKAW, MOLLY 1988
Secretary III
- BETTIS, PATRICIA 1981
Accounts Payable Associate
- BLAZIC, CAROL 1992
Secretary III
- BONA, ROBERTA 1995
Office Assistant
- BORTON, JEFF 1990
Electronic Technician
- BOWE, STELLA 1986
Office Assistant
- BOYLE, CHARLENE 1992
Accounts Payable Associate
- BROWN, BERNICE 1993
Grant Technician
- BROWN, KATHY 1997
Coordinator-Instructional Services
- BROWN, PAUL 1983
General Maintenance
- BUMP, CHRISTINE 1996
Contract Technician
- BUREK, NORMA 1979
Coordinator of Computer Operations
- BURNS, DIANE 1994
Coordinator, Continuing Education Services
- CHAMBERS, DIANE 1997
Assistant to the Director of Enrollment Management
- CICHONSKI, CAROL 1995
Secretary III
- COLLING, GREGORY 1985
Public Safety Officer
- COMMON, SHARON 1998
Secretary III
- CONRAD, DEBRA 1996
Help Support Specialist
- COOK, JENNIFER 1997
Utility II
- COOLEY, MARGOT 1997
Secretary I
- COUTTS, ROGER 1995
Networking and Software Specialist
- CROSS, VICKI 1994
Utility II
- CZAJKA, MARJORIE 1993
Corporate Services Team Leader
- DANI, BRENDA 1994
Contracted Training Coordinator
- DANI, DEBORAH 1992
Human Resources Technician
- DENNIS, JANICE 1994
Document & Layout Associate
- DiBLASI, PATRICIA 1995
Bookstore Assistant C
- DIXON, SHIRLEY 1989
Administrative Technician
- DOINIDIS, ELGENE 1988
Coordinator, Distance Learning
- DORSEY, JUANITA 1979
Secretary III
- DROUILLARD, CLARENCE 1966
Utility II
- DuBOIS, ROBERTA 1996
Public Safety Officer
- DUKA, KENNETH 1986
Utility II
- DUNCAN, JR., TIMOTHY 1997
Electronic Technician
- DURIEUX, ERNEST 1977
General Maintenance
- DURLING, BRENDA 1998
Coordinator of Special Events & Fundraising
- DWYER, CAROL 1996
Research Assistant
- EDMUNDS, MARGARET 1991
Continuing Education Office Assistant
- ELESON, BELINDA 1979
College Receptionist
- FLEMING, MARGARET 1999
Assistant to the Director of Food Service
- FLEMING, MICHAEL 1983
Operations Technician
- FOURNIER, KIMBERLEY 1998
Learning Resources Assistant
- FOURNIER, RONALD 1998
Skilled Maintenance-HVAC
- FOX, WILLIAM 1986
Technical Support Specialist
- FRENTZOS, KARLA 1994
Supervisor, Doc-U-Center
- GADDY, CHRISTINE 1998
Grant Technician
- GALINDO, JOYCE 1996
Secretary IV
- GALLAGHER, DIANA L. 1989
Utility II
- GEINZER, CHRISTINE 2000
Secretary III
- GELMAN, SANDRA 1991
Corporate Services Coordinator
- GERARGE, ELAINE 1984
Job Placement Technician
- GILLOW, JANINE 1998
Purchasing Assistant
- GOODEN, SAMUEL 1995
Supervisor, Media Services
- GRANT, PHILIP 1977
Utility II
- GRAYER, SHAWNDA 2000
Purchasing Assistant
- GREEN, ANNE 1977
Office Manager, Instruction
- GREENWELL, DIANE 1979
Accounts Receivable Associate
- GREIFENBERG, JASON 1997
Coordinator, Academic Computing Labs
- GRIFFITH, PATTY B. 1989
Primary Caregiver
- HARJU, DEBBIE 1984
Assistant to the Director of Enrollment Management
- HARRISON, BECKY 1988
Utility II
- HAYES, SYLVIA 1989
Marketing/Merchandising Specialist
- HENRY, LORETTA 1995
Programmer/Analyst
- HEUSNER, SCOTT 1997
Programmer/Analyst
- HINDS, CHERYL 1997
Grant Clerk
- HINZMAN, SYLVIA 1988
Secretary II
- HOCHBERG, ELLEN 1998
Publications Coordinator
- HOLMAN, CHERI 1997
Secretary III
- HOLTSCHNEIDER, DONNA 1996
Primary Caregiver
- HORGER, DAWN 2000
Bookstore Assistant
- HOWELL, BRADLEY 1999
Utility II
- HUBENSCHMIDT, JOHN 1990
Utility I
- HUDSON, JR., ROBERT 1980
Utility I Leader
- HULIK, KATHLEEN 1996
Public Relations/Media Specialist
- ISABELL, AGNES 1995
Office Assistant
- JOHNSON, EMILY 1997
Admissions Office Assistant
- JOHNSON, RODNEY 1986
General Maintenance
- JONES, DAVID 1995
Public Safety Officer
- JONES, TERASA 1997
Continuing Education Office Assistant
- JOSWIAK, FRANCES 1992
Secretary to the President
- KELLY, SANDRA 1976
Secretary III
- KERSHAW, MARLENE 1985
Displaced Homemaker Coordinator
- KING, DAVID 1980
Utility II
- KIURSKI, CATHERINE 1976
Secretary IV
- KOROL, GEORGE 1992
Public Safety Officer
- KOVACS, CHRIS 1991
Public Safety Officer
- KOVACS, CONNIE 1998
Primary Caregiver
- KRAWCKE, KIMBERLY 1997
Media Technician
- KRAWCZYK, THERESA 1991
Secretary III
- KUDLAWIEC, JOHN 1994
Utility II
- LaBo, HOLLY 1982
Physical Education Attendant
- LaCOUNTE, LORI 1994
Workforce Development Coordinator
- LaVEQUE, RANDOLPH 1999
Utility II
- LESHOK, LAURA 1997
Assistant to the Director of Enrollment Management
- LEAVENS, BRENDA 1999
Accounts Receivable Associate
- LIGHTFOOT, RUSSELL 1977
Utility I

- LOSEY, KEVIN 1994
Utility II
- LOUNSBERY, RICHARD 1989
Public Safety Officer
- LOWE, CLAUDETTE 1998
Secretary II
- MACHNIAK, ELIZABETH 1994
Secretary II
- MAISANO, JOSEPH 1999
Coordinator, Academic Computing Labs
- MALINOWSKI, KAREN 1995
Continuing Education Office Assistant
- MANNING, GREGORY 1978
Skilled Maintenance
- MASON, DENISE 1992
Utility II
- MATHUR, VIKRAMADITYA 1999
Coordinator-International Programs
- MATTSON, LORNA 1987
Accounts Receivable Associate
- MATUSIK, SHERRINE 1983
Assistant to the Registrar
- MCCOLLISTER, DONALD 1987
Storekeeper Leader
- MCDONALD, CHERYL 1990
Information Specialist
- MCVITTIE, DONALD 1979
Facilities Management Specialist
- MILEWSKI, DANNY 1977
Bookstore Assistant A
- MILEWSKI, ROBERT 1986
Bookstore Assistant B
- MILLER, JAMES 1986
Utility I
- MISIAK, CHRISTOPHER 1986
Culinary Administrative Specialist
- MOG, PATRICK 1983
Skilled Maintenance-HVAC
- MOLONEY, STEVEN 1996
Supervisor, College Centers Media Services
- 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
- NEIL, PATRICIA 1987
Administrative Technician
- NOGUEZ, VERONICA 1990
Utility II
- NORDMAN, DONNA 1993
Coordinator, Placement Services
- NOWACKI, DARRYL 1987
Networking & Software Specialist
- OLDHAM, JOANN 1996
Assistant to the Director of Food Service
- O'KEEFE, SHARYL 1988
Primary Caregiver
- PACK, SALLY 1983
Lab Technician
- PARDO, PATRICK 1996
Shift Supervisor
- PARKS, APRIL 1995
Assistant to the Director of College Bookstore
- PARKS, PEGGY 1988
Cashier II
- PAWLAK, PAMELA 1988
Secretary III
- PEGG, SHIRLEY 1995
Financial Services Office Assistant
- PELOQUIN, DIANA 1993
Primary Caregiver
- PEPPER, MARIANNE 1985
Benefits Specialist
- PEREZ, PATRICIA 1973
Secretary III
- PERUGIA, COLETTE 1995
Assistant Coordinator-Distance Learning
- PETRICCA, JULIE 1997
Buyer
- PIASENTIN, GERARD 1997
Project Engineer
- PLEMMONS, LARRY 1997
Public Safety Officer
- PRENGER, ANN 1998
Coordinator, Continuing Education Services
- PUHLMAN, JEFFREY 1974
Media Systems Technician
- PURCELL, THOMAS 1981
Utility II Leader
- RAGAN, MICHAEL 1976
Skilled Maintenance
- REID, AMY 1994
Corporate Services Coordinator
- RIEF, MARY Jo 1987
Business Office Supervisor
- RILEY, BONNIE 1980
Cashier III
- RUMPTZ, KAREN 1995
Grant Technician
- RYDZEWSKI, DAVID 2000
Shipping/Receiving Operations Supervisor
- RYKTARSKY, DONNA 1967
Assistant Director of Financial Aid
- SATHER, SUSAN 1986
Payroll Associate
- SCHAFFRATH, ROCHELLE 1980
Human Resources Specialist
- SCHARMEN, BARBARA 1995
Secretary/Accounting Associate
- SCHERTZER, ANDREW 1980
Utility II
- SEVERSON, MELISSA 1992
Payroll Associate
- SHAUGHNESSY-SMITH, JEAN 1989
Co-Supervisor, Children's Center
- SHERFIELD, BARBARA 1998
Coordinator, Academic Computing Labs
- SMITH, JONATHAN 1998
Continuing Education Office Assistant
- SMITH, KENNETH 1987
Storekeeper
- SMITH, PIERA 1984
Coordinator, Support Services
- SPRINGER, SHERRY 1983
Coordinator of Student Activities
- STABLEY, DAVID 1985
Skilled Maintenance
- STAKNIS, BARBARA 1996
Secretary A
- STAPULA, JEANNE 1999
Secretary II
- STEIGERWALD, NORMAN 1979
Utility I
- STEVANOVIC, DANNE 1996
Grant Technician
- STOWELL, TODD 1996
Student Activities Technician
- SULLIVAN, MONICA 1990
Coordinator, Nursing Programs
- SULLIVAN, PATRICK 1988
Utility II
- SWIGER, CURTIS JR. 1983
Sergeant, Public Safety
- SZUKIELOWICZ, GAIL 1989
Transfer Credit Specialist
- TAPIO, GLENN 1996
Utility II
- TAYLOR, LUCIAN 1980
Storekeeper
- TIKKANEN, LISA 1995
Secretary IV
- TIMTE, JACQUELINE 1997
Secretary III
- TOMALTY, ELAINE 1987
Secretary III
- TOMEY, CAROLYN 1991
Office Assistant
- TONG, MICHAEL 1988
Utility II
- UTLEY, JAMES 1987
Research Technician
- VANLUE, JR., ROBERT 1997
Programmer/Operator
- WAGERS, MARK 1998
Utility II
- WALLACE, LINDA 1995
Secretary II
- WALLEN, LYNN 1992
Secretary to the Executive Director of Human Resources
- WATKINS, JOEL 1989
Laboratory Coordinator
- WATT, JR., HENRY 1995
Utility II
- WEBER, MATTHEW 1995
Media Technician
- WEBER, REBEKAH
Secretary III
- WESTWOOD, HERBERT 1980
Utility I
- WHELAN, JUDITH 1994
Secretary IV
- WIKTOR, MICHELLE 1988
Document & Layout Associate
- WILLEY, GERALDINE 1991
Financial Aid Assistant
- WILSON, JANET 1993
Accounts Payable Associate
- WILTRAKIS, DANIEL 1988
Technical Support Specialist
- WRIGHT, JOHN 1974
General Supervisor
- YAREMCHUK, PATRICIA 1982
Human Resources Specialist
- YOUNG, SUSAN 1987
Senior Buyer
- ZACHOS, PATRICIA 1999
Clerk A
- ZAPPALA, SHIRLEY 1994
Contracted Training Team Leader

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)

Andersen, Katherine, MA MATH
 Arsno, Eduard, AAS MET/RI
 Best, Patrick, PhD PSYCH
 Bondie, Susan, MA CIS
 Borgert, Donna, BM MUSIC
 Burnell, John, BS MFG/RI
 Burnham, Robert, MS MFG/QM
 Burnside, Robert, MEd COUNS
 Coppola, Carlo, PhD CAP/CM
 Cox, Madeline, MA MA
 Cundiff, Margaret, MSN NURS
 Cuneo, Linda, MA MUSIC
 Dagher, Joseph, P., MA ENG
 Delonis, Richard, JD CJ
 Dembicki, Helen, MA ENG
 Derr, Carol, L., MA SOC
 Devyak, Beverly, J., MS BIOL
 Donkers, Sylvia, MEd OIS/BUS
 Dostal, Frederick, MB ACCT
 Driscoll, Faye, MA COUNS/HDS
 Edwards, Allan, EdD MATH
 Ellis, Mark, JD COMA
 Galea, Michael, MA CIS
 Gibbons, Thomas, MA ECON/POLS
 Glass-Boyd, Crystal, MA GEOG
 Goldberg, Jerry, EdD HIST
 Goodyear, Michael, MBA ACCT
 Gordon, Richard, F., SPA BUS
 Grewe, Barbara, BSN NURS
 Griffith, Robert, MBA ACCT
 Harm, Nancy, EdS PSYCH
 Hauncher, James, BS CJ
 Hershoren, Gary, EdD COUNS
 Hopfner, John, MBA BUS
 Horvath, John, SpA PSYCH
 Jacobs, Jan, PhD PSYCH
 Jenvey, Alan, MBA CIS
 Jooharigian, Robert, PhD PHIL
 Kavalhuna, Carol, MAT MATH
 Keller, Mary, J., BS CCD
 Kitakis, Frank, G., MS BIOL
 Kiyak, James, MS MATH
 Koelzer, Leonard, MBE CIS/ACCT
 Korenchuk, Nancy, I., MA COMA
 LaCroix, Tracy, MA RI
 Lawton, Corazon, MEd MA
 Lonigro, Antonio, MA SPAN
 Madsen, James, MA CJ
 Mashni, Nabih, MBA ACCT
 McMenamin, James, MS ELECT
 McPeak, Russell, MA BUS/MATH
 Meehan, Cheryl, MEd MATH
 Meehan, George, MEd MATH
 Melia, Nancy, BS BIOL
 Mendenhall, Heather, BSN NURS
 Misiak, Christopher, BA CAP/CM
 Moy, William, AAS RI
 O'Kelly, James, MA POLS/SOC/COR
 Oakes, Michael, MA GEOG
 Perry, John, MEd ENG
 Pickett, Kenneth, M., MS RI/MET
 Pizzorni, Lawrence, AAS CAP
 Poledink, Alice, MA ENG
 Probeliski, James, MS MATH
 Quinn, Patricia, BSN NURS
 Rabotnick, Seymour, MBA BUS/ACCT
 Robinson, Ronald, MA POLS
 Safran, Kenneth, JD BUS
 Sampson, Dorothy, MS NURS
 Schluter, P. Carl, JD BUS
 Schuby, Thomas, MA SOC
 Sensoli, Joseph, A., MA BUS
 Sheppard, Cynthia, BSN NURS

Siefman, Ronald, MBA BUS
 Skinner, Robert PE
 St. Louis, Mary, MA MATH
 Standish, Marc, MA ENG
 Sylvester, James, MEd COUNS
 Szoke, Paul, MA COUNS
 Tancill, William, MBA CIS
 Temporelli, Barbara, MS CHEM
 Vaysman, Elena, Teaching Cert. USSR MATH
 Wasson, Samuel, MSEE ELECT
 Watson, Carolyn, MS CHEM
 Weiskopf, Barbara, MS PSYCH
 Woods, Robert, MA ENG/PHIL
 Wroblewski, Veronica, MA COLLS
 Yee, Donald, MA BUS
 Zimmerman, Nancy, MA COUNS

Adjunct Associate Professor

(Min. 8 yrs. service & 150 points)

Allen, Robert, PhD PHIL
 Bartha, Paul, Z., MS CIS
 Bell, Carolyn, PhD ENG
 Belloli, Patricia, A., MEd COUNS
 Binkowski, Christine, MS MA/HIT/MR
 Blay, Harold, MA ENG
 Bowers, Jr., Anne, PhD COMA
 Brennan, Judith, M., MS PSYCH
 Brown, Craig, A. CAP
 Bushart, Gerald, MA MATH
 Cavan, Paul, MS COR/CS
 Cien, Georgiana, MEd CCD
 Cieslak, Daniel, H., BS BUS
 Conway, Daniel, J., MA POLS
 Cramb, Richard, Jr., MA CJ
 Denoyer, Georgia, BS AHE/MA
 DiDonato, Jeanine, A., MS MATH
 Downs, Robert, F., MA ART
 Feinberg, Nadine, MA ENG
 Friedrich, Paul, MA MATH
 Gallegos, Evelyn, MS GEOG
 Hanert, Frederick, MA COUNS
 Harden, Shirley, EBM MUSIC
 Harper, Ellen, MSA AHE
 Holman, Cheri, MA MATH/OIS
 Johns, Michael, MA HIST
 Johnson, Shirlee, R., BSN NURS
 Kasenow, Gary, JD COR
 Kaufman, Judith, MEd, MA CPPC/HDS
 Kilbert, Louis, PhD CHEM
 Ko, Chung, Y., MS CHEM
 Lawrence, David, BS RI
 Lee, Matthew, BA MFG/RI
 Liss, Marianna, MA COMA
 Marilley, David, BS MATH
 Martoia, Suzanne, BSN NURS
 McCartney, James, MA BUS
 Monge, John, MSA PA
 Neilands, Joyce, MEd MATH
 Olech, Timothy, MS BIOL
 Olson, Sarah, MA ART
 Parsons, Wayne, A., MA CIS
 Patchin, Ellen, MS BIOL/CON
 Pritt, Jeanette, MA COMA
 Pylvainen, Sandra, MA ENG
 Rahbari, Carol, MA ENG
 Ramia, Rafael, BS CIS
 Reynolds, John, R., MA HIST
 Sarris, Cynthia, MFA ART
 Sarris, Stephanie, MFA ART
 Segowski, Edward, MEd MATH
 Sevvick, Michael, C., MFA ART
 Sikorski, Gary PA
 Sim, Julie, MA POLS
 Simpson, Chester, BS CIS
 Smigielski, Constance, BSN NURS

Smith, Craig, MA ART
 Spiro, Steven, H., PhD PSYCH
 St. Chur, Joseph, BE RI/ELECT/BMET/
 COMPS
 Stanley, Dorothy, MA MATH
 Stanton, Fred, BS PA
 Talbert, Linda, S., MA COLLS
 Taylor, Kathy, BS MT/HIT/MR
 Trembath, Darryl, MBA BUS
 Tucker, Alan, MA PHIL
 Turnau, III, William, BS DRFG/CAD
 Valenti, Judith, MA ENG
 Wasserman, Melvin, EdD HUM
 Wolke, Dale, MA ANTH
 Zurel, Richard, MA ANTH/ARCOL

Adjunct Assistant Professor

(Min. 3 yrs. service & 100 points)

Badura, Arlene, MBA COMA
 Bagdadchi, Mahin, MS CHEM
 Bartlett, David, MA CCD
 Bida, Cynthia, MS BIOL
 Bogarin, Russell, MA COUN
 Borg, Ann, BSN NURS
 Brown, Kathy, MA ACCT/MATH
 Cardellio, Carla, MA BUS
 Dakessian, Hagop, S., MA ECON
 Doerr, Patricia, MA ENG
 Fletcher, Debra, MA BIOL
 Frank, Robert, EMT
 Garcia, Glenda, MA PSYCH
 Glubzinski, Ann, MA BUS
 Han, Sheng, C., MSW COR
 Herrington, Willet, MA PA/PE
 Huber, William, BBA CIS
 Jackson, Harold, MA MATH
 Josiah, George, MS MATH
 Julian, Bruce CIS
 Kiurski, Thomas, MPA FIRE
 Kohlert, Peter, A., MSA MATH
 Kulnis, Edward, MA ECOUN
 Kurland, Sheila, MS BIOL
 Lawson, Thomas, MBA BUS
 Levy, Barbara, S., MSN NURS
 Little, Patricia, MA ECOUN
 Lovelace II, Robert, AS EMT
 Lyons, Deborah, BSN NURS
 McAllister, Emily, MS MATH
 McDonald, Fairrice, MA ENG
 McNutt, Caroline, MS BIOL/CON
 Miles, Lois, MPA COR
 Mogelnicki, Margaret, MA CIS
 Moylan, Mark, MA COMA
 Patail, Bryanne, MLS ELECT/BMET
 Pederson, Vera, MA CCD
 Perry, Patricia, K., MS GEOL/GEOG
 Perry, Robert, FIRE
 Phillips, Clyde, T., MS CIS
 Rejniak, Christine, MA COLLS
 Reppenhagen, Gilbert, ME ENG
 Roulo, Claudia, BA MATH
 Scalise, Beatrice, M., MA SOC
 Segraves, Steven, MM MUSIC
 Simo, C.T., MSA BUS
 Sitzler, Mardell MATH
 Smiley, Robert, BFA CGT
 Smilnak, John, AAS FIRE
 Sperling, Sandra, BSN NURS
 Swarup, Chitra, MS MATH/RI
 Taylor, Bonnita K., MS BIOL
 Teska, Jane, MA ELECT/RI
 Viksne, Edgar, MBA BUS
 Wahby, Mona, PhD CHEM
 Waldyke, Michael, J., MS CHEM
 Whitmarsh, Lawrence, MS QM

Emeritus–Honoraire Employees

- AHLAND, VIRGINIA 1969-1991
Secretary Learning Resources Honoraire
- ALLISON, LEA M. 1975-1997
OIS Associate Professor Emeritus
- ANDREWS, ELIZABETH 1973-1989
Assistant Dean Emeritus, CES
- ARLEN, RICHARD 1969-1994
Accounting Professor Emeritus
- ATTALAI, PETER 1964-1984
German, Spanish Professor Emeritus
- BAUMGARTNER, WILLIAM H. 1967-1985
Electronics Professor Emeritus
- BLACK, AGNES J. 1973-1992
Personnel Specialist Honoraire
- BLACK, ROBERT J. 1966-1992
Art Professor Emeritus
- BLOOM, STUART C. 1965-1996
History Professor Emeritus
- BOGARIN, RUSSELL 1965-1991
Registrar Emeritus
- BOYE, DALE 1970-1994
Mathematics Professor Emeritus
- BOYCE, MARILYN JOYCE 1973-1994
Doc-U-Center Supervisor Honoraire
- BREITHAUP, ROBERT L. 1966-1987
Assistant Dean of Culinary Arts Emeritus
- BURNELL, JOHN R. 1968-1998
Manufacturing Professor Emeritus
- BURNSIDE, ROBERT 1967-1996
Counselor Professor Emeritus
- BUTLER, PATRICK 1962-1984
Director of Library Emeritus
- CASTILLO, CHARLES W. 1964-1985
Communication Arts Professor Emeritus
- COOK, LOWELL T. 1967-1997
Business Professor Emeritus
- DAGHER, JOSEPH 1967-1988
English Professor 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
- ELLIS, MIDGE B. 1974-1991
Coordinator of Special Events Honoraire
- FERRARI, DOROTHY E. 1982-1992
Personnel Specialist Honoraire
- FLOREK, SAUNDRA P. 1969-1999
Dean of Marketing and Development Emeritus
- GAITSKILL, LAWRENCE R. 1964-1985
Political Science Professor Emeritus
- GEIL, BARBARA A. 1964-1995
Vice President for Student Services Emeritus
- GUDAN, SIRKKA 1980-1998
Assistant Dean for Academic and Assessment Services Emeritus
- HAMMOND, PATSY R. 1970-1995
Nursing Professor Emeritus
- HEINZMAN, DAVID L. 1970-1986
Assistant Dean for Instruction Emeritus
- HERSHOREN, GARY 1967-1996
Counselor Professor Emeritus
- HUSTON, D. LOUISE 1964-1982
Director of Accounting, Payroll Honoraire
- JAWOR, MARY 1964-1989
English Professor Emeritus
- KEENE, ROBERT 1968-1979
Instructional Vice President Emeritus
- KELLY, CECILIA 1964-1983
Art Professor Emeritus
- LAO, LINCOLN 1968-1999
Art Professor Emeritus
- LARKIN, VIRGINIA E. 1985-1998
Secretary to Associate Dean of College Centers Honoraire
- LICHTY-MAYES, ELIZABETH F. 1967-1992
English Professor 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
- MILLER, RALPH 1966-1985
Geography Professor Emeritus
- MOORHEAD, REX K. 1968-1981
Mathematics Professor Emeritus
- MUNRO, GERALD 1970-1996
Executive Director of Human Resources Emeritus
- NASLUND, RAYMOND L. 1966-1985
Accounting 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 1968-1984
Payroll Employee Honoraire
- RONCOLI, THOMAS C. 1967-1992
Physical Education Professor Emeritus
- ROUSSEAU, CLARA M. 1962-1981
Administrative Assistant Honoraire
- SATTIG, HARRIETT H. 1963-1980
Director of Health Careers Emeritus
- SHON, MAYBELLE B. 1966-1983
Secretary to Dean of College Centers Honoraire
- SIPES, DELAVAN W. 1965-1986
Electronics Professor Emeritus
- SMITH, MARY 1965-1988
Nursing Professor Emeritus
- STEC, LEONARD 1966-1990
Culinary Arts Professor Emeritus
- STEFANSKI, FREDERICK 1966-1980
Instructional Dean Emeritus
- SUTHERLAND, ROGER A. 1964-1990
Biology Professor Emeritus
- TANG, KIN LING 1990-1999
Psychology Associate Professor Emeritus
- TEWS, CAROLYN H. 1977-1999
Mathematics Professor Emeritus
- WEBBER, JOHN R. 1965-1993
Director of Counseling Emeritus
- WILSON, JOHN M. 1965-1993
History Professor Emeritus
- WOLTZ, PHEBE M. 1965-1982
Accounting Professor Emeritus
- VERLINICH, MARY 1973-1989
Secretary for Financial Aid Honoraire



Advisory Committees

Accounting

| | |
|--------------------|---|
| Richard Arlen | Accounting Professor Emeritus and Mediator, Plymouth |
| Robert Bentz | Financial Manager, Elf Atochem, N.A., Riverview |
| Richard Berschback | Associate Professor of Accounting, Walsh College, Troy |
| William Breger | Division Engineer, Holloway Construction/Waterland Trucking, Wixom |
| Michele Bryant | Staff Accountant, Lear Corporation, Fenton |
| Janet Evans | Staff Accountant, Arthur Andersen L.L.P., Ann Arbor |
| Gerard Mellnick, | CPA/Chief Financial Officer, Building Industry Association of Southeastern Michigan, Farmington Hills |
| David Williamson | Certified Public Accountant, Post, Smythe, Lutz & Ziel, Plymouth |

Biomedical Engineering Technology

| | |
|----------------------|--|
| Joe Acosta | Manager of Clinical Engineering, Grace Hospital, Detroit |
| Ronald Edmonds | Manager of Clinical Engineering, BMET, Providence Hospital, Southfield |
| Jane Focht | CBET, William Beaumont Hospital, Royal Oak |
| Marty Gibson | Manager of Clinical Engineering, St. Joseph Mercy Hospital, Ann Arbor |
| Steven J. Henning | Manager of Biomedical Engineering, Botsford Hospital, Farmington |
| David C. Lawton, Jr. | Senior Accounts Executive, Novare Services, Inc., Farmington Hills |
| Bryanne Patail | Biomedical Engineering, Beaumont Services Company, Royal Oak |
| Chris Peters | CBET, University of Michigan Hospital, Ann Arbor |
| Condon A. Quicci | Supervisor of Clinical Engineering, Sinai-Grace Hospital, Detroit |
| Paul Roberts | Director of Biomedical Engineering, University of Michigan Hospital, Ann Arbor |
| Richard Sutton | Manager of Clinical Contracts, St. John Health System, Detroit |

Child Care and Development/Special Education

| | |
|--------------------|--|
| 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 |
| Ingrid Crepeau | Director of T.L.C. Preschool and Kindergarten, Livonia |
| Patricia Eady | Teacher, River Rouge Head Start, River Rouge |
| Patricia Kirksey | Director of Prep Program, Jackson Center, Livonia |
| Ray Roberts | Executive Director, R. Roberts Residential Services, Inc., Redford |
| Patricia Sargent | Director of Early Childhood, Downriver Guidance Clinic, Lincoln Park |
| Carol Smiley | Director of Early Childhood, Livonia Public Schools, Livonia |

Computer Graphics Technology

| | |
|------------------|---|
| Richard Cochrum | Mac Operator, Valassis Communications, Livonia |
| Susan M. Daly | Assignment Manager, Portfolio, Southfield |
| Ed Hubert | Department Chair, Visual Communication, Livonia Career/Tech Center, Livonia |
| John T. Kosinski | Proprietor, Kosinski Design Studio, River Rouge |
| George Sepetys | Vice President, Director Graphics Design Consulting, Ford and Earl, Troy |

Computer Information Systems

| | |
|-------------------|--|
| Bill Tancill | Systems Implementation Manager, Ford Investment Enterprises Corporation, Detroit |
| Tom Troschinetz | Team Leader, Information Systems, St. John Health System, Detroit |
| Vincent Zebraitis | Sales Engineer, GEOTEL, Westland |

Computer Service Technology

| | |
|-------------|---|
| Ken Demski | Telecommunications Manager, DaimlerChrysler Corporation, Centerline |
| Jim McCoy | CBET, McPherson Hospital, Howell |
| Mark Wenzel | Network Analyst, Mercy Information Systems, Ann Arbor |
| Karl Zager | Consultant, Plante & Moran, Southfield |

Correctional Science

| | |
|-------------------|--|
| Robert Brown, Jr. | Former Director, Michigan Department of Corrections, Lansing |
| Theodore Johnson | Attorney, 35th District Court Magistrate, Plymouth |
| Jimmy Stegall | Warden, Macomb Regional Correctional Facility, New Haven |
| Michael Swope | Retired Officer, Michigan State Police, Sterling Heights |
| Carol Zackary | Director of Personnel, Scott Correctional Facility, Plymouth |

Criminal Justice

| | |
|----------------|---|
| James Caygill | Chief, Huron Township Police Department, New Boston |
| William Dwyer | Chief, Farmington Hills Police Department, Farmington Hills |
| James Hauncher | State Police Crime Laboratory, Northville |
| Dave Harvey | Chief, Garden City Police Department, Garden City |
| Peter Kuntz | Chief, Livonia Police Department, Livonia |

Criminal Justice - Police Academy

| | |
|--------------------------|---|
| William Barron | Chief, Grosse Isle Police Department, Grosse Isle |
| Robert A. Ficano | Sheriff, Wayne County Sheriff's Department, Detroit |
| Daniel J. Grant | Chief, Grosse Isle Police Department, Grosse Isle |
| Victor Hess, Chair | Chief, Metro Parks Public Safety, Wayne County |
| Dorothy Knox | Chief Investigator, Wayne County Prosecutor's Office, Detroit |
| James E. Robson | Executive Lieutenant, Detroit Metro Airport Police, Romulus |
| Lawrence Semple | Chief, Harper Woods Police Department, Harper Woods |
| James Webber, Vice Chair | Chief, Dearborn Heights Police Department, Dearborn Heights |

Culinary Arts and Culinary Management

| | |
|-----------------|---|
| Mary Brady | Proprietor, Diamond Jim Brady's Bar and Grill, Novi |
| John Delsignore | Proprietor, Laurel Manor, Livonia |
| Keith Famie | Chef, Forte Restaurant, Birmingham |
| Ted Gillary | General Manager, Detroit Athletic Club, Detroit |
| Peter Loren | Chef, Tribute Restaurant, Farmington Hills |
| Nelda Mercer | Nutritionist, Meds Sports, Ann Arbor |
| Brian Polcyn | Proprietor, Five Lakes Grill, Milford |
| Leonard Stec | Retired Faculty, Schoolcraft College, Livonia |

Design

| | |
|-------------------|---|
| David A. Brown | Product Design Engineer, Ford Automotive Operations, Allen Park |
| Doris Campbell | Manufacturing Engineer/Vehicle Operations, Ford Motor Company, Allen Park |
| Hank Knott | Product Design Manager, GKN, Romulus |
| John Kurtz | Engineering Supervisor, Class Design, Troy |
| Steven Roddy | Manager of Engineering and Project Management, Hy-Tek Systems, Livonia |
| Andrew Wroblewski | Manufacturing Engineer Facilities, Ford Motor Company, Utica |

Electronics

| | |
|---------------------|---|
| Thomas Chrapkiewicz | Design Engineering, Philips Semiconductors, Dearborn |
| Kenneth Demski | Data Manager, DaimlerChrysler Corporation, Centerline |
| John Patchett | Supervisor, Power Equipment and Relay Test, Detroit Edison Company, Detroit |
| Frank Schmid | Manager, Ingersoll Rand-Tool & Hoist Division, Farmington Hills |
| Richard Snyder | Engineering Technician, Detroit Edison Company, Detroit |
| Jef Spencer | Director, Infinity Performance Systems, Novi |

Emergency Medical Technology

| | |
|--------------------|---|
| Tom Ayers | Manager of EMT Education, Huron Valley Ambulance Service, Lansing |
| Robert Frank | Paramedic Instructor - Huron Valley Ambulance Service, Ann Arbor |
| David Freedman, MD | Physician Medical Director - Huron Valley Ambulance Service, Ann Arbor |
| Robert Lovelace | Paramedic Instructor - Huron Valley Ambulance Service, Ann Arbor |
| Gerald Zapolnik | Vice President of Support Services, Huron Valley Ambulance Service, Ann Arbor |

Environmental Technology

| | |
|----------------------|---|
| Catherine Bean | Environmental Quality Analyst, Michigan Department of Environmental Quality, Livonia |
| David Budd | Account Representative, Onsite Environmental Staffing, Livonia |
| John Foley | Manager, Geographic and Information Services, Orchard, Hiltz & McCliment, Inc., Livonia |
| Michael Hoben | Manager, Survey Projects, Earth Tech., Livonia |
| Michael Kasenow, PhD | Department Head - Geography and Geology, Eastern Michigan University, Ypsilanti |
| Elisabeth Lindsay | Branch Manager, Scientific Staffing, Livonia |
| Julie Seiter, PhD | Biology Professor, Oakland Community College, Livonia |
| Paul Sgriccia, PE | Office Director, EMCON, Livonia |

Fire Regional Training Center

| | |
|------------------|---|
| Tim Bosman | Deputy Chief, Riverview Fire Department, Riverview |
| Victor Boulanger | Chief, Inkster Fire Department, Inkster |
| David Hiller | Lieutenant, Grosse Pointe Park Public Safety, Grosse Pointe Park |
| Greg Kirt | Member of Michigan Fire Fighters Training Council, Lansing |
| Dan McNamara | Member of Michigan State Fire Fighters Union, Detroit |
| Paul J. Messineo | Chief, Ecorse Fire Department, Ecorse |
| James Moran | Officer, Grosse Pointe Shores Public Safety, Grosse Pointe Shores |
| James Porcello | Member of Michigan Fire Fighters Training Council, Lansing |
| Leonard Sobieski | Chief, Redford Township Fire Department, Redford Township |
| Phillip Wagner | Chief, Ypsilanti Township Fire Department, Ypsilanti Township |

Kids on Campus

| | |
|--------------------|---|
| Bill Camp | Executive Director of Secondary Education, Wayne/Westland Schools, Westland |
| Gene Charette | Child Development Facilitator, Taylor Public Schools, Taylor |
| Elizabeth Hammer | Delta Gifted Dept. Chairperson, Farmington Public Schools, Farmington |
| Joanne LaFleur | Instructor for the Talented & Gifted Children in the Elementary, Clarenceville Board. of Education, Livonia |
| Terri Michaelis | TAG Lead Teacher, Miller Elementary School, Canton |
| Susan Ryan | Gifted Specialist, Livonia Board of Education, Livonia |
| Nancy Schieb | Director, ALPS Northville Schools, Northville |
| Ron Sutherby | Principal, Westwood Elementary School, Dearborn Heights |
| Cheryl Wilett | Director of Curriculum and Instruction, Garden City Schools, Garden City |
| Mary Angela Winter | Program Director, Van Buren School District, Belleville |

Laser Electro-Optics Technology

| | |
|--------------------|---|
| Frank D. Brennan | Lasers Sales Manager, TRUMPF Inc., Plymouth |
| Randy Cook | Manufacturing and Test Supervisor, Rofin Sinar, Plymouth |
| Richard Corey | Application Engineer, Rofin Sinar, Plymouth |
| Richard R. Davis | Laser Sales Manager, Raycon, Ann Arbor |
| Mark Gartner | Engineering Specialist, Ford Motor Company, Livonia |
| Gerry Herman | Senior Laser Applications Engineer, Lumonics Corporation, Livonia |
| Alan Miller | Welding Engineer, Ford Motor Company, Livonia |
| John M. Ruselowski | Director of Marketing and Sales, Ann Arbor Machine Company, Chelsea |

Law Enforcement - Continuing Education

| | |
|---------------|--|
| Ronald Deziel | Chief, Dearborn Police Department, Dearborn |
| Daniel Grant | Chief, Brownstown Township Police Department, Brownstown |
| Victor Hess | Chief, Metro Parks Public Safety, Wayne County |
| Leo Lanctot | Chief, Allen Park Police Department, Allen Park |
| Mark Perkins | Director, Van Buren Township Police Department, Van Buren Township |

Learning Assistance Center/Developmental Education

| | |
|-------------------|---|
| Mary Couillard | Career Intern Coordinator, Livonia Public Schools, Livonia |
| Barbara De Grazia | Program Specialist, Western Wayne Skills Center, Westland |
| Vivian Fahle | Consultant, Wayne County Regional Services Agency, Wayne |
| Mike Ibrahim | Tutor, Schoolcraft College, Livonia |
| Jan Kavulich | Counselor, Plymouth-Salem High School, Canton |
| Rick Menoch | Counselor, Plymouth-Canton High School, Canton |
| Rosemary Miller | Adult Education, Livonia Bentley Center, Livonia |
| Delores Norman | Director of Special Populations, Detroit Public Schools, Detroit |
| Robert Ogletree | Vocational Rehabilitation Counselor, Department of Veteran's Affairs, Detroit |
| Lois Rice | Adult ESL Instructor/Supervisor, Livonia Dickinson Center, Livonia |
| Ione Skaggs | Tutor, Schoolcraft College, Livonia |
| Jan Skinner | Rehabilitation Counselor, Michigan Department of Career Development, Wayne |

Manufacturing and Production Planning

| | |
|------------------------|---|
| Robert Burnham, PE | Vice President of Technology, Textron Automotive Company, Troy |
| Kevin Crute | President and Proprietor of Crucam Inc., Livonia |
| James E. Frederick, PE | Director of Manufacturing Engineering, American Axle & Manufacturing, Inc., Detroit |
| Gene Keyes | President, Keyes & Company, Inc., Highland |
| David J. Lawrence | Manufacturing Process Engineer, Ford Motor Company, Wayne |
| Matthew J. Lee | Training Developer, Ford Motor Company, Plymouth |
| Tom Llewellyn | Retired Manufacturer, Milford |

Marketing and Applied Management

| | |
|-----------------|--|
| Robert Bethel | Proprietor, Bethel Consulting, Novi |
| Carla Cardellio | Former Event Specialist, Dayton Hudson Corporation, Southfield |
| John Hopfner | Retired Manager, Ford Motor Company, Dearborn |
| Norma La Vallee | Account Manager, Industrial Technology Institute, Ann Arbor |
| Tom Simo | Realtor, Century 21, Northville |

Medical Assisting

| | |
|------------------------|--|
| Barbara Fielek-Grzebik | Certified Medical Assistant, Physician's Office, Garden City |
| Diane Hoffman | Certified Medical Assistant, 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 |
| Char Sobieski Greco | Network Control Analyst, CareTech Solutions, Inc., Dearborn |
| Karan Thompson | Certified Medical Assistant, and Registered Medical Assistant, Temprow, Westland |

Medical Transcription and Health Information Technology

| | |
|-------------------|--|
| Gail Alder | Registered Health Information Administration, Alder Associates, Inc., Farmington Hills |
| Cheryl Kasperek | Registered Health Information Technician, Blue Care Network, Southfield |
| Nancy Klinkhammer | Registered Health Information Administrator, Beaumont Hospital, Royal Oak |
| Shirley Laszlo | Registered Health Information Technician, Consultant, Garden City |
| Patricia McLane | Registered Health Information Administrator, Henry Ford Community College, Dearborn |
| Diane Repshinka | Registered Health Information Technician, University of Michigan, Ann Arbor |
| Shirley Wise | Registered Health Information Administrator, Crittenton Hospital, Rochester Hills |

Metallurgy and Materials Science

| | |
|------------------------|--|
| Charles Bessey, CHMM | Supervisor of Special Projects-Safety Director, KOLENE Corporation, Detroit |
| Nicholas Gianaris, PhD | Light Weight Materials Specialist, Visteon Automotive Systems, Dearborn |
| George E. Good | Engineer, Casting Operations, Dearborn |
| M. Tod Gonzales | Director, Product Application Center, National Steel Corporation Livonia |
| Glen Hineman | Quality Assurance Manager, Hercules Drawn Steel Corporation, Livonia |
| William F. Jandeska | Manager of Powder Metallurgy Technology, Powertrain Division, General Motors Corporation, Pontiac |
| David Meuleman, PhD | Staff Specialist, Applications Technology Department, National Steel Product Application Center, Livonia |
| Kenneth M. Pickett | Engineer, Visteon Automotive Systems, Dearborn |
| Daryl R. Wilusz | Manager of Research and Development, Masco Corporation, Taylor |

Nursing, Associate Degree and Practical

| | |
|-----------------------|--|
| Judith Caroselli, RN | Administrator, Westland Convalescent Center, Westland |
| Edwina Eggleston, RN | Associate Administrator, Nursing Services, Botsford Hospital, Farmington |
| Marilyn Harton | BSN Degree Completion Coordinator, Madonna University, Livonia |
| Diane Hendershott, RN | Clinical Director, Oakwood Home Health Care, Taylor |
| Kathy MacInnis, RN | Nurse Manager, Endoscopy, Grace Hospital, Detroit |
| Sally Potter, LPN | Licensed Practical Nurse, American Red Cross, Northville |
| Patricia Webb, RN | Registered Nurse, Prime Care Services, Bingham Farms |

Occupational Therapy Assistant

| | |
|---------------------|---|
| Mary Case | Certified Occupational Therapist, Registered, Livingston Educational Service Agency, Howell |
| Mary Kay Currie | Occupational Therapist, Registered, DMC Sinai-Grace Hospital, Detroit |
| Laura Edney | Certified Occupational Therapist, Registered, Botsford Hospital, Farmington Hills |
| Janice Kitzman | Occupational Therapist, Registered, Oakwood Hospital, Dearborn |
| Susanne Meyer | Occupational Therapist, Registered, Methodist Children's Home Society, Detroit |
| Terrie Pszcolkowski | Occupational Therapist, Registered, Spectrum Home Care, Southfield |
| Mary Ruehl | Occupational Therapist, Register, In-Patient Coordinator for Physical Medicine and Rehabilitation, St. Mary Hospital, Livonia |
| Andrea Smith | Certified Therapeutic Recreational Specialist, Methodist Children's Home Society, Detroit |

Office Information System

| | |
|-------------------|--|
| Shelley Boatright | Communications Manager, Little Caesar Enterprises, Inc., Detroit |
| Ree Taylor | Community Affairs Specialist, Detroit Newspapers, Detroit |
| Beverly Valente | Account Clerk, City of Novi, Novi |

Piano Teacher Certificate Program

| | |
|----------------|---|
| Jean Candlish | Certification Board Committee, Michigan Music Teachers Association |
| Jean Schwartz | Piano Teacher Training Committee, Michigan Music Teachers Association, Livonia |
| Mary Siciliano | Past President, Detroit Musicians League, Detroit |
| Marilyn Sluka | Past President and Executive Board Member, Livonia Area Piano Teachers Forum, Livonia |

Police Reserve Officer Training Program

| | |
|------------------|--|
| Kevin Dawley | Lieutenant, Livonia Police Department, Livonia |
| Darnel Krause | Sergeant, Farmington Hills Police Department, Farmington Hills |
| James Lazar | Captain, Dearborn Heights Police Department, Dearborn Heights |
| Richard Niemisto | Inspector, Farmington Hills Police Department, Farmington Hills |
| Steven Rapson | Sergeant, Plymouth Township Police Department, Plymouth Township |
| Ronald Schebil | Sheriff, Washtenaw County Sheriff's Department, Ann Arbor |
| Brenda Sutton | Lieutenant, Washtenaw County Sheriff's Department, Ann Arbor |

Senior Adult

| | |
|-------------------|--|
| Carol Donnelly | Program Administrator and Senior Citizen Coordinator, City of Plymouth, Plymouth |
| Don Friedrichs | Retired Administrator, Livonia Public Schools, Livonia |
| Evelyn Goudreau | Recreation Supervisor, Livonia Civic Park Senior Center, Livonia |
| Kathy Moore | Area Manager, Wayne County RSVP, Dearborn |
| Patrick O'Neill | Senior Vice President, Paine Webber Inc., Livonia |
| Sharon Thomas | Executive Director, Plymouth Housing Commission, Plymouth |
| Cheryl Stephanian | Senior Program Coordinator, Maplewood Community Center, Garden City |
| John Webber | Retired Director of Counseling, Schoolcraft College, Livonia |
| Esie Mahaffy | Director of Wayne County RSVP, Detroit |
| Donna Michalski | Senior Activities Coordinator, Plymouth Housing Commission, Plymouth |

Women's Resource Center

| | |
|----------------------|--|
| Charlotte Adams | Member of Business and Professional Women, Westland |
| Elizabeth Allen | Business Proprietor, Certified Financial Planner, Farmington Hills |
| Lyn Bankes | Commissioner, Wayne County, Detroit |
| Renée Boving, MD | Professor of Anatomy, Retired, WSU School of Medicine, Volunteer and Peer Counselor, Women's Resource Center, Schoolcraft College, Livonia |
| Laura Callow | Women's Rights Advocate, Member, Human Rights Commission, City of Livonia, Livonia |
| Mary Dumas | Member, Board of Directors, YWCA, Western Wayne County, Livonia |
| Dolly Ettenhofer | Stylist, Charisma Salon, Plymouth |
| Mary Rose Hausman | Retired Accountant, Plymouth |
| Elizabeth M. Johnson | Attorney at Law, Plymouth |
| Sue Mason | Editor, Garden City Observer, Livonia |
| Vera McGregor | Retired Placement Specialist, Michigan Employment Security Commission, Inkster |
| Margo Worley | Retired Women's Resource Center, Schoolcraft College, Livonia |

Welding

| | |
|---------------------|--|
| Adam Aldrin | President, Advanced Engineering Industries, Plymouth |
| Charles Makins, Jr. | Supervisor, Welding Department, Greenfield Die & Manufacturing, Canton |
| Larry Tatro | Vice President Sales, Welding Robotics & Automation, Plymouth Wayne Welding Supplies Inc., Garden City |
| Daniel Wellman | Senior Coordinator, Hercules Welding Products, Warren |
| Robert Wilcox | Product Cost Analyst, Visteon Automotive Systems, Ypsilanti |
| Stuart Galbraith | Retired CEO, Weldcraft, Plymouth |



Campus Phone Directory

| | | |
|--|-----------------------------------|-------------------------|
| Admissions | McDowell Center | 734-462-4426 |
| Athletics | Physical Education Building | 734-462-4400, Ext. 5249 |
| Bookstore | Service Building | 734-462-4409 |
| Business & Industrial Services | McDowell Center | 734-462-4441 |
| Business Office | Administration Building | 734-462-4416 |
| Cafeteria/Food Service | Waterman Center | 734-462-4471 |
| 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 |
| Continuing Education Services - Physical Fitness | Continuing Education Center | 734-462-4413 |
| Counseling | McDowell Center | 734-462-4429 |
| Disabled Student Services | McDowell Center | 734-462-4436 |
| Distance Learning | Library | 734-462-4532 |
| Doc-U-Center | Liberal Arts Building | 734-462-4400, Ext. 5304 |
| Facility Rentals | Continuing Education Center | 734-462-4475 |
| Financial Aid | McDowell Center | 734-462-4433 |
| Financial Services | McDowell Center | 734-462-4445 |
| Grade Reports - Registrar | McDowell Center | 734-462-4430 |
| Health Service | Waterman Center | 734-462-4400, Ext. 5050 |
| Hearing Impaired Phone Lines | Livonia | 734-462-4437 |
| | Radcliff Center | 734-462-4773 |
| Human Resources | Administration Building | 734-462-4408 |
| Information | McDowell Center | Operator - 0 |
| Learning Assistance Center | McDowell Center | 734-462-4436 |
| Library | Library | 734-462-4440 |
| Marketing & Development | Administration Building | 734-462-4417 |
| Media Center | Library | 734-462-4400, Ext. 5330 |
| Office of Instruction | Administration Building | 734-462-4451 |
| Payroll | McDowell Center | 734-462-4400, Ext. 5368 |
| President's Office | Administration Building | 734-462-4420 |
| Public Safety (Security) | Service Building | 734-462-4424 |
| Purchasing | McDowell Center | 734-462-4444 |
| Related Trades Coordinator | Applied Sciences Building | 734-462-4457 |
| Schedules/Catalogs | McDowell Center | 734-462-4426 |
| Student Activities | Waterman Center | 734-462-4422 |
| Student Consumer Information | McDowell Center | 734-462-4431 |
| Student Newspaper | Waterman Center | 734-462-4400, Ext. 5053 |
| Student Refunds | McDowell Center | 734-462-4430 |
| Tennis Courts | Tennis House | 734-462-4434 |
| Transcripts - Registrar | McDowell Center | 734-462-4430 |
| 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 and Development *in cooperation with*

Office of Instruction and Student Services
 Noreen Thomas, Executive Manager of
 Marketing and Development

Ellen Hochberg, Publications Coordinator

Cheryl McDonald, Information Specialist,
 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.

Legend

AA = Associate in Arts
 AAS = Associate in Applied Science
 AE = Associate in Engineering
 AGS = Associate in General Studies
 AS = Associate in Science
 PAC = Post-Associate Certificate
 1YC = One Year Certificate

Business Certificate

Accounting 1YC.00001
 Basic Business 1YC.00002
 Computer Information Systems ... 1YC.00004

Business Associate Degree

Accounting AAS.00005
 Computer Information Systems ... AAS.00012
 Cosmetology Management AAS.00010
 General Business AAS.00008
 Marketing & Applied Management AAS.00009
 Office Administration AAS.00133
 Small Business Management AAS.00011

Communications Arts Associate Degree

Broadcast Communications AA.00041

Health Certificate

Medical Assisting ¹ 1YC.00026
 Medical Transcription ¹ 1YC.00029
 Nursing-Licensed Practical ¹ 1YC.00017

Allied Health¹

Associate Degree

Health Information Technology ¹ AAS.00153
 Nursing-Licensed Practical ¹ AGS.00126
 Nursing-Registered ¹ AAS.00000
 Occupational Therapy Assistant ¹ ... AAS.00019

Public Service Certificate

Child Care & Development 1YC.00031
 Child Care-Special Education 1YC.00032
 Child Development Associate 1YC.00034
 Emergency Medical Technology . 1YC.00024
 Firefighter Technology 1YC.00149

Public Service Associate Degree

Child Care & Development AAS.00020
 Child Care-Special Education AAS.00021
 Correctional Science AAS.00132
 Criminal Justice and Academy AAS.00086
 Fire Technology and Academy AAS.00177

Technology Certificate

Computer Aided Drafting, 1YC.00118
 Electro Mechanical
 Computer Aided Drafting-Technical 1YC.00119
 Computer Graphics Technology 1YC.00136
 Culinary Arts ¹ 1YC.00079
 Electronic Service 1YC.00125
 Energy Specialist 1YC.00156
 Laser Technology 1YC.00159
 Metallurgy-Applied Physical 1YC.00124
 Music-Foundations 1YC.00162
 Music-Intermediate 1YC.00163
 Piano Teacher 1YC.00115
 Welding-Fabrication 1YC.00127

Technology Associate Degree

Biomedical Engineering Technologist AAS.00128
 Computer Assisted Manufacturing AAS.00150
 Computer Aided Design-Mech. Design AAS.00170
 Computer Aided Drafting-Tool Design AAS.00140
 Computer Graphic Technology AAS.00028
 Computer Service Technician AAS.00129
 Culinary Arts ¹ AAS.00087
 Electronic Technology AAS.00120
 Environmental Technology AAS.00176
 Laser Technology AAS.00131
 Manufacturing for Quality Production AAS.00135
 Metallurgy & Materials Science AAS.00184

Apprenticeships-

For Related Trades Instruction (Apprenticeships)
 Program Codes, Please Contact the R.T.I. Coordinator
 in the Applied Science Building, AS-510, or by
 phone at 734/462-4457.

Post-Associate Certificate

Biomedical Applications PAC.00178
 Computer Graphics Technology PAC.00181
 Computer Information Systems PAC.00155
 Computer Integrated Manufacturing PAC.00151
 Culinary Management PAC.00157
 Materials Science PAC.00179

Non-Degree Seeking 00900

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

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

11. PROGRAM OF STUDY (See Page 2 for program information)

| | |
|--------------|--------------|
| Program Code | Program Name |
|--------------|--------------|

12. 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

13. 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

14. EDUCATIONAL BACKGROUND

| | | | |
|-------------|-------|--------------------|----------------------------------|
| High School | State | if non-US, country | Graduation Date (month and year) |
|-------------|-------|--------------------|----------------------------------|

If you have not graduated from high school, did you successfully complete the GED? ☐ Yes ☐ No

GED Date (month and year)

List all colleges previously attended; list most recent first. Check the appropriate degree earned.
If you did not earn a degree, indicate the number of credit hours earned.

| | | |
|--------------------|--|------------------------|
| College/University | Degree Earned: <input type="radio"/> Associate <input type="radio"/> Master's <input type="radio"/> No Degree <input type="radio"/> Bachelor's <input type="radio"/> PhD | Number of credit hours |
| City | State | if non-US, Country |

| | | |
|--------------------|--|------------------------|
| College/University | Degree Earned: <input type="radio"/> Associate <input type="radio"/> Master's <input type="radio"/> No Degree <input type="radio"/> Bachelor's <input type="radio"/> PhD | Number of credit hours |
| City | State | if non-US, Country |

| | | |
|--------------------|--|------------------------|
| College/University | Degree Earned: <input type="radio"/> Associate <input type="radio"/> Master's <input type="radio"/> No Degree <input type="radio"/> Bachelor's <input type="radio"/> PhD | Number of credit hours |
| City | State | if non-US, Country |

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.

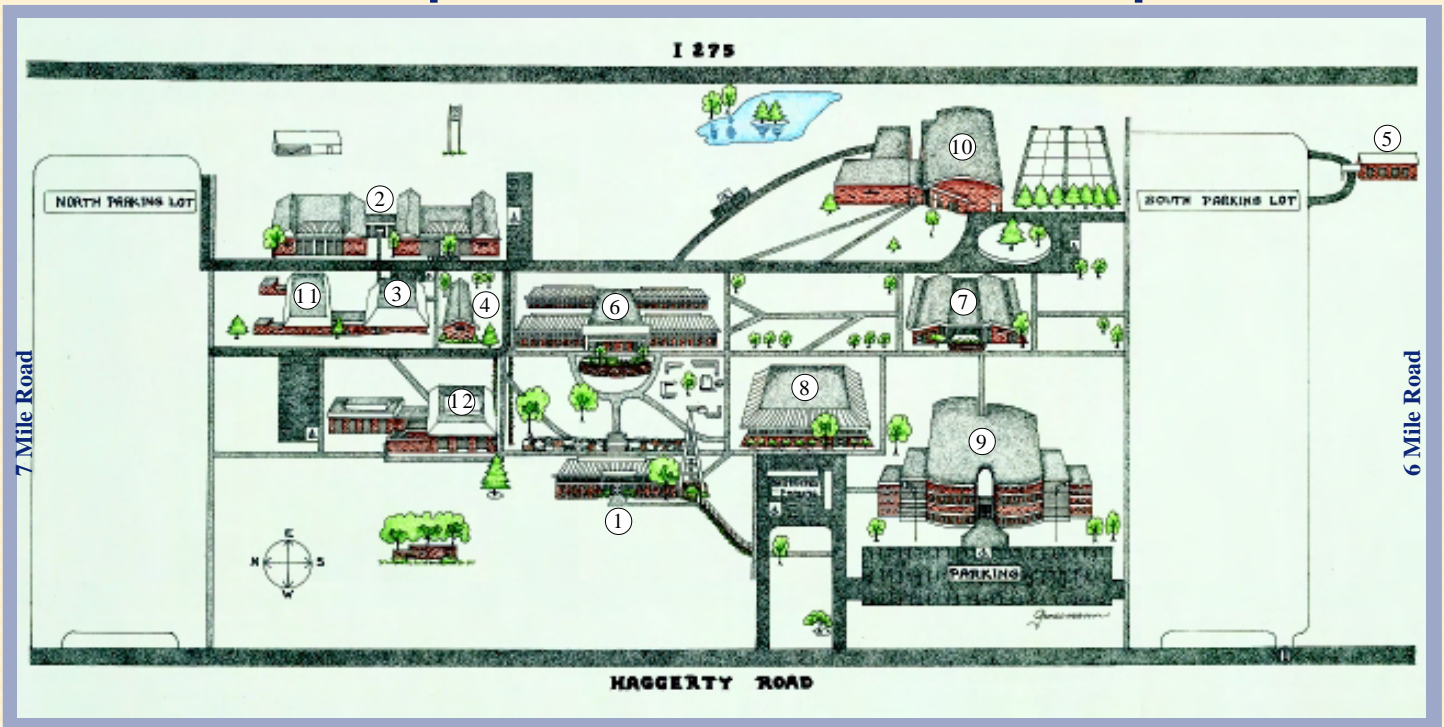
Signature of Applicant _____ Date of Application _____

Forward this application with a photocopy of both sides of your current driver's license or State of Michigan Identification Card to:

Office of Admissions
Schoolcraft College
18600 Haggerty Road
Livonia, MI 48152-2696
Phone: 734/462-4426 Fax: 734/462-4553
Web Address: www.schoolcraft.cc.mi.us

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.

Campus & Area Maps



1 Administration Building-A

Business Vice President
Foundation
Human Resources
Instruction Office
Instruction & Student Services Vice President
Marketing & Development
President's Office

2 Applied Sciences Building-AS

Associate Dean-Business and Technology
Business Programs
Computer Programs
Classrooms

3 Bookstore

4 Continuing Education Center-CEC

5 Children's Center (Child Care)

6 Forum Building-F

Art Programs
Associate Dean-Sciences
Computer Graphics Technology
Classrooms
Forum Recital Hall
Music Programs
Science Programs

7 Liberal Arts Building-LA

Associate Dean-Liberal Arts/Independent and Distance Learning
Classrooms
Liberal Arts Programs
Liberal Arts Theatre

8 Library-L

9 McDowell Center-MC

Admissions
Assessment Center
Business Development Center
Career Planning & Placement
Cashier
Classrooms
Computer Labs
Counseling Center
Dean of Student Services
Financial Aid
Financial Services
Learning Assistance Center
Purchasing
Registrar
Registration Center
Testing Services
Women's Resource Center

10 Physical Education Building-PE

11 Public Safety

Lost & Found
Physical Plant Facilities
Public Safety (Security)

12 Waterman Campus Center-WCC

American Harvest Restaurant
Cafeteria
Classrooms
Culinary Arts Program
Food Service
Founder's Room
Health Service
Recreational Areas
Student Activities
Study Area

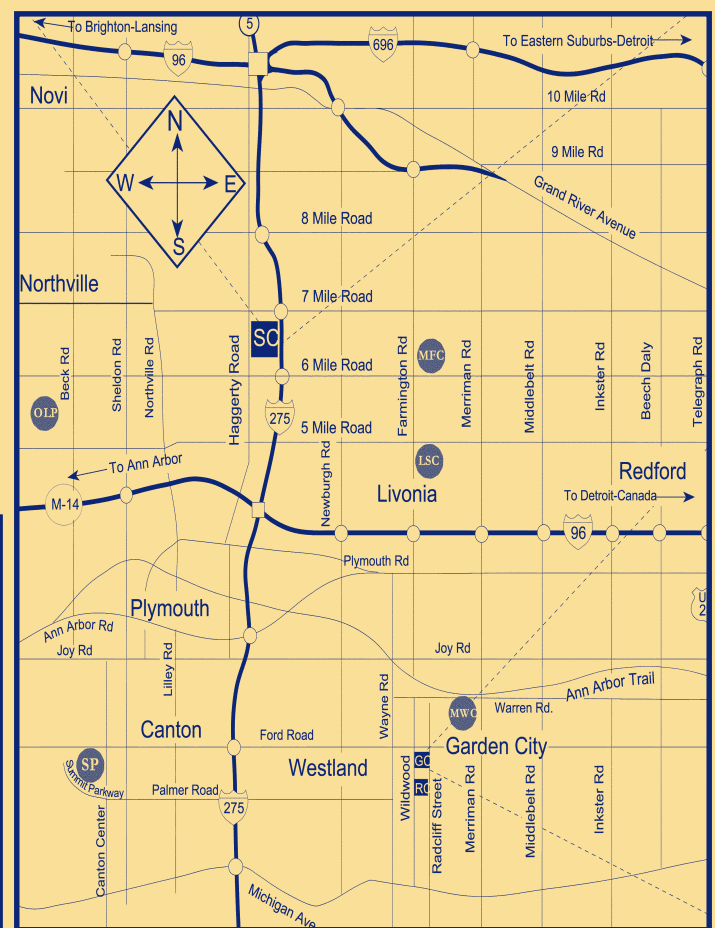
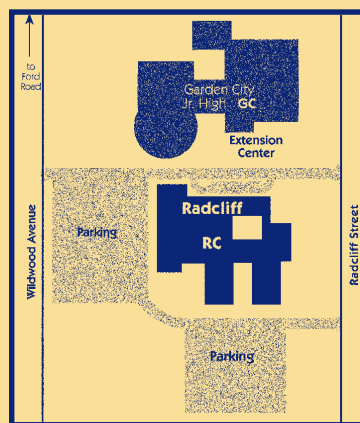
Area Map

Schoolcraft Campus
18600 Haggerty Road
Livonia, Mi 48152-2696
734-462-4400

Radcliff Center

1751 Radcliff Street
Garden City, Michigan
48135

734-462-4770





Schoolcraft College
18600 Haggerty Road, Livonia, Michigan 48152-2696
734/462-4400
www.schoolcraft.cc.mi.us