



2011–12 catalog

DISCOVER Schoolcraft

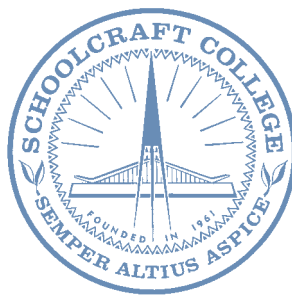


Mission

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

Core Purpose

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



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 disability, be subjected to discrimination during or be excluded from participating in or be denied the benefits of 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:

*Cheryl M. Hagen
Dean of Student Services
Schoolcraft College
18600 Haggerty Road
Livonia, MI 48152
734-462-4400, ext. 5088*

Employment:

*Cindy Koenigsnecht
Executive Director of
Human Resources
Schoolcraft College
18600 Haggerty Road
Livonia, MI 48152
734-462-4405*

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

*Glenn Cerny
Vice President and
Chief Financial Officer
Schoolcraft College
18600 Haggerty Road
Livonia, MI 48152
734-462-4416*

*Hearing Impaired Phone:
734-462-4437*

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



Accreditation

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

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

- The Children's Center is accredited by the National Association for Education of Young Children (NAEYC). For more information regarding accreditation, call 800-424-2460.
- The Criminal Justice Associate Degree with Academy program is certified by the Michigan Commission on Law Enforcement Standards (MCOLES). For more information regarding accreditation, call 517-322-3966.
- The Culinary Arts Program is certified by the American Culinary Federation Education Foundation Accrediting Commission (ACFEFAC). For more information regarding certification, call 904-824-4468.
- The Fire Technology Fire Fighter I & II programs are certified by the Michigan Fire Fighters Training Council. For more information regarding certification, call 616-447-2689.
- The Health Information Technology Associate Degree program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM), in association with the American Health Information Management Association (AHIMA). For more information regarding accreditation, call 312-233-1129.
- The Medical Assisting Certificate program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Medical Assisting Education Review Board (MAERB). For more information regarding accreditation, call 727-210-2350.
- The Nursing Associate Degree and Practical programs are approved by the Michigan Board of Nursing. For more information regarding accreditation, call 517-373-6873.

New Student Checklist

All the steps that lead to registration take place in the McDowell Center and are listed below:

- ☐ **Apply for admission.** Complete an application for admission online at www.schoolcraft.edu. If you need assistance, contact the Admissions and Enrollment Center. Your Student Number is: _____.
- ☐ **Visit our campus.** Sign up online at www.schoolcraft.edu/tour to schedule a guided campus tour. You also can view a virtual tour at www.schoolcraft.edu/virtualtour.
- ☐ **Submit transcripts.** Send your high school transcripts and/or GED scores to the Admissions and Enrollment Center, or fax to 734-462-4553. Official college transcripts must be *sent directly* from the transfer institution's Registrar's Office to Schoolcraft College. Guest students are not required to submit transcripts.
- ☐ **Send in your ACT or SAT scores or take a placement test.** If you have taken an ACT or SAT test within the last three years, send your scores to the Admissions and Enrollment Center. If you have not taken the ACT test but plan to, the Schoolcraft College ACT code is 2070.

Placement testing is available in the Testing Center. You must have your student number and photo identification to take the placement test. Sample placement questions are available at www.schoolcraft.edu/assessment. There is no fee for your first placement test. You must obtain counseling approval and will be charged a fee for subsequent attempts. Call 734-462-4806 for assistance.

- ☐ **Explore financial aid and scholarship opportunities.** Apply online at www.fafsa.ed.gov and list the Schoolcraft College code 002315. Call Financial Aid at 734-462-4433 for more information or visit www.schoolcraft.edu/aid.
- ☐ **Participate in orientation.** Orientation is available on campus or online at www.schoolcraft.edu. Visit or call the Counseling Center at 734-462-4429 to make arrangements.
- ☐ **Meet with a counselor or academic advisor.** Visit or call the Counseling Center at 734-462-4429.
- ☐ **Register for classes.** Go online at www.schoolcraft.edu/registration, or visit the Admissions and Enrollment Center. To obtain a student identification card, bring photo identification to the Admissions and Enrollment Center.
- ☐ **Choose a payment method.** Pay for classes online, in person at the Cashier's Office, or by using our tuition payment plan. Payment must be made in full the same day you register.
- ☐ **Attend your classes!**

www.schoolcraft.edu



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Campus and Area Maps Inside Back Cover

Welcome to Schoolcraft College

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

Schoolcraft College was established more than fifty years ago, on October 24, 1961, by the people of five contiguous communities to create an opportunity for you to grow intellectually and to strengthen your economic independence. We share a common goal; we want you to succeed.

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

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

Conway A. Jeffress, Ph.D.
President



Board of Trustees



Gregory J. Stempien
Chair



Brian D. Broderick
Vice Chair



Carol M. Strom
Secretary



Patricia Watson
Treasurer



Mary Breen
Trustee



James G. Fausone
Trustee



Joan A. Gebhardt
Trustee

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

Foundation Board of Governors

The Schoolcraft College Foundation was founded in 1966 as a non-profit corporation dedicated to supporting the core values of Schoolcraft College, specifically the belief that higher education should be accessible to the greatest number of students. With the support of its many

donors, the Foundation provides student scholarships and grants for faculty and staff to develop new programs. The Foundation is led by a Board of Governors comprised of civic, business, and community leaders drawn from the community served by the college.



Pictured: Reginald Best, Conway A. Jeffress, John Elkins, John Allie, Mary Ellen King, Guy Gehlert, Thomas Marek, Gary Gabel, Martha Snow, Craig Bowles, Ray Friedrich, Abe Munfakh, Jeffrey Styers, Jeff McCarthy, Douglas Adams.

Not pictured: Mary Breen, Julie Carrigan, Robert Farris, Elizabeth Johnson, Kristina Mayer, Charles McIlhargey, John N. Santeiu, Jr., Paul Serwinek, John Tomey, Richard Yarling

Schoolcraft Development Authority

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

Glenn Cerny	President
Robert R. Nix II	Vice President
James Polkowski	Secretary/Treasurer
Vince DeLeonardis	
James B. McKeon	
Hon. Lita M. Popke	
Jim Ryan	
Patricia Watson	
Conway A. Jeffress	Ex-Officio
Janine Gillow	Recording Secretary

Where to go for Assistance

College Web Site: www.schoolcraft.edu

Livonia Campus: 734-462-4400

Radcliff Center, Garden City: 734-462-4770

Hearing impaired phone line: 734-462-4437

Academic Advising

www.schoolcraft.edu/counseling

Counseling Center,

McDowell Center Room 275 734-462-4429

Email counseling@schoolcraft.edu

Academic Records

Student Records,

McDowell Center Room 255 734-462-4677

Email srecord@schoolcraft.edu

Academic Standing, Probation, Dismissal

www.schoolcraft.edu/counseling

Counseling Center,

McDowell Center Room 275 734-462-4429

Email counseling@schoolcraft.edu

Adding, Dropping, Changing or Withdrawing from a Course

www.schoolcraft.edu

Online add and drop <https://webadvisor.schoolcraft.edu>

Admissions and Enrollment Center,

McDowell Center Room 240 734-462-4426

Email registration@schoolcraft.edu

Admission to the College

www.schoolcraft.edu

Online <https://webadvisor.schoolcraft.edu>

Admissions and Enrollment Center,

McDowell Center Room 240 734-462-4426

Email admissions@schoolcraft.edu

Athletics

www.schoolcraft.edu/athletics

Athletics Office 734-462-4804

Books & Classroom Supplies

www.schoolcraftbooks.com

Livonia Campus Bookstore, Service Bldg. 734-462-4409

Garden City Radcliff Center Bookstore,

Room 130 734-462-4778

Email books@schoolcraft.edu

Campus Security Police

www.schoolcraft.edu/safety

Livonia, Service Building 734-462-4424

Garden City Radcliff Center 734-462-4400 ext. 6424

Campus Tours

www.schoolcraft.edu/tour

www.schoolcraft.edu/virtualtour

Livonia Campus 734-462-4683

Garden City Radcliff Center 734-462-4786

Email recruitment@schoolcraft.edu

Career Information

www.schoolcraft.edu/ctc

Career and Transfer Center,

McDowell Center Room 205 734-462-4421

Email ctc@schoolcraft.edu

Catalogs

www.schoolcraft.edu/publications

Admissions and Enrollment Center,

McDowell Center Room 240 734-462-4426

Email admissions@schoolcraft.edu

Change of Name or Address

www.schoolcraft.edu/registration

Admissions and Enrollment Center,

McDowell Center Room 240 734-462-4426

Email registration@schoolcraft.edu

Clubs; Organizing or Joining

www.schoolcraft.edu/sao

Student Activities Office,

VisTaTech Center, Waterman Wing 734-462-4422

Email sao@schoolcraft.edu

Child Care Services

www.schoolcraft.edu/services/childcare

Children's Center,

South Parking Lot, Livonia Campus 734-462-4442

Computer Use—Academic

Livonia Campus,

McDowell Center Room 100 734-462-4400, ext. 5147

Garden City Radcliff Center,

Room 415 734-462-4400, ext. 6112

Computer Use—Wireless Internet Access

<http://faq.schoolcraft.edu/>

Continuing Education and Professional Development

www.schoolcraft.edu/cepd

Continuing Education Center 734-462-4448

Email CEPD@schoolcraft.edu

Disability Services—Equal Access

www.schoolcraft.edu/ctc

Career and Transfer Center,

McDowell Center Room 205 734-462-4421

Email ctc@schoolcraft.edu

Distance Learning Online Courses

www.schoolcraft.edu/dl

Distance Learning Office,

McDowell Center Room 305 734-462-4532

Email dl@schoolcraft.edu

Dual Enrollment

www.schoolcraft.edu/admissions

Admissions and Enrollment Center,

McDowell Center Room 240 734-462-4426

Email admissions@schoolcraft.edu

Financial Aid

www.schoolcraft.edu/aid

Office of Financial Aid,

McDowell Center Room 260 734-462-4433

Email finaid@schoolcraft.edu

Graduation***Applying to graduate***

www.schoolcraft.edu/counseling
 Counseling Center,
 McDowell Center Room 275 734-462-4429
 Email counseling@schoolcraft.edu

Commencement ceremony

www.schoolcraft.edu/graduation
 Student Records,
 McDowell Center Room 255 734-462-4677
 Email srecord@schoolcraft.edu

Hybrid Courses

www.schoolcraft.edu/hybrid
 Phone 734-462-4525
 Email hybrid@schoolcraft.edu

I.D. Cards

www.schoolcraft.edu/admissions
 Admissions and Enrollment Center,
 McDowell Center Room 240 734-462-4426
 Email admissions@schoolcraft.edu

International Student Services

www.schoolcraft.edu/admissions
 Admissions and Enrollment Center,
 McDowell Center Room 240 734-462-4426
 Email admissions@schoolcraft.edu

Job Opportunities***Student on- and off-campus employment***

www.schoolcraft.edu/ctc
 Career and Transfer Center,
 McDowell Center Room 205 734-462-4421
 Email ctc@schoolcraft.edu

Human Resources

www.schoolcraft.edu/hr
 Human Resources, Grote Administration Center
 Room 160 734-462-4408
 Email hr@schoolcraft.edu

Kids on Campus

www.schoolcraft.edu/KOC
 Continuing Education Center 734-462-4448
 Email CEPD@schoolcraft.edu

Library Services

www.schoolcraft.edu/library
 Bradner Library, Livonia 734-462-4440
 Garden City Radcliff Center,
 Room 355 734-462-4400, ext. 6020
 Email library@schoolcraft.edu

Lost & Found

www.schoolcraft.edu
 Livonia, Public Safety, Service Building 734-462-4424
 Garden City Radcliff Center,
 Public Safety 734-462-4400 ext. 6424

Open Entry/Open Exit Courses

www.schoolcraft.edu/oeoe
 Open Entry/Open Exit Office,
 McDowell Center Room 305 734-462-4588
 Open Entry/Open Exit Lab, Biomedical Technology Center
 Room 120 734-462-4400 ext. 5177
 Email oeoe@schoolcraft.edu

Orientation for New Students

www.schoolcraft.edu/counseling
 Online orientation www.schoolcraft.edu/olo
 Counseling Center,
 McDowell Center Room 275 734-462-4429
 Email counseling@schoolcraft.edu

Payment for Classes

www.schoolcraft.edu/admissions
 Online payment https://webadvisor.schoolcraft.edu
 Cashier's Office, McDowell Center Room 250... 734-462-4449
 Email cashiers@schoolcraft.edu
 Student Accounts (Accounts Receivable),
 McDowell Center Room 320 734-462-4586
 Email acctrecv@schoolcraft.edu

Register for Classes

www.schoolcraft.edu/registration
 Online registration https://webadvisor.schoolcraft.edu
 Admissions and Enrollment Center,
 McDowell Center Room 240 734-462-4426
 Email registration@schoolcraft.edu

Reserving College Facilities

vistatech.schoolcraft.edu
 VisTaTech Center Rental 734-462-4610
 Email vistatech@schoolcraft.edu
 Other Room Rentals 734-462-4475
 Email facilitiesuse@schoolcraft.edu

Scholarships

www.schoolcraft.edu/aid
 Office of Financial Aid,
 McDowell Center Room 260 734-462-4433
 Email finaid@schoolcraft.edu

Student Grievances

www.schoolcraft.edu/academics/policies
 Dean of Student Services,
 McDowell Center Room 262 734-462-4577

Testing /Assessment Services

www.schoolcraft.edu/assessment
 Livonia Campus Testing Center,
 McDowell Center Room 220 734-462-4806
 Email assesscen@schoolcraft.edu
 Garden City Radcliff Center,
 Room 120 734-462-4400, ext. 6021
 Email lacrc@schoolcraft.edu

Transcripts

www.schoolcraft.edu/admissions
 Online (unofficial copy) https://webadvisor.schoolcraft.edu
 Admissions and Enrollment Center,
 McDowell Center Room 240 734-462-4426
 Email admissions@schoolcraft.edu

Transition Center

*Women's Resource Center, Veterans Services,
 Adult Student Services and Family Resources*
 www.schoolcraft.edu/transition
 Transition Center,
 McDowell Center Room 225 734-462-4443
 Email transition@schoolcraft.edu

Tutoring

www.schoolcraft.edu/lac
 Learning Assistance Center:
 Livonia, Bradner Library 734-462-4436
 Garden City Radcliff Center,
 Room 120 734-462-4400, ext. 6021
 Email lac@schoolcraft.edu

Veterans

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

Where to go for Assistance

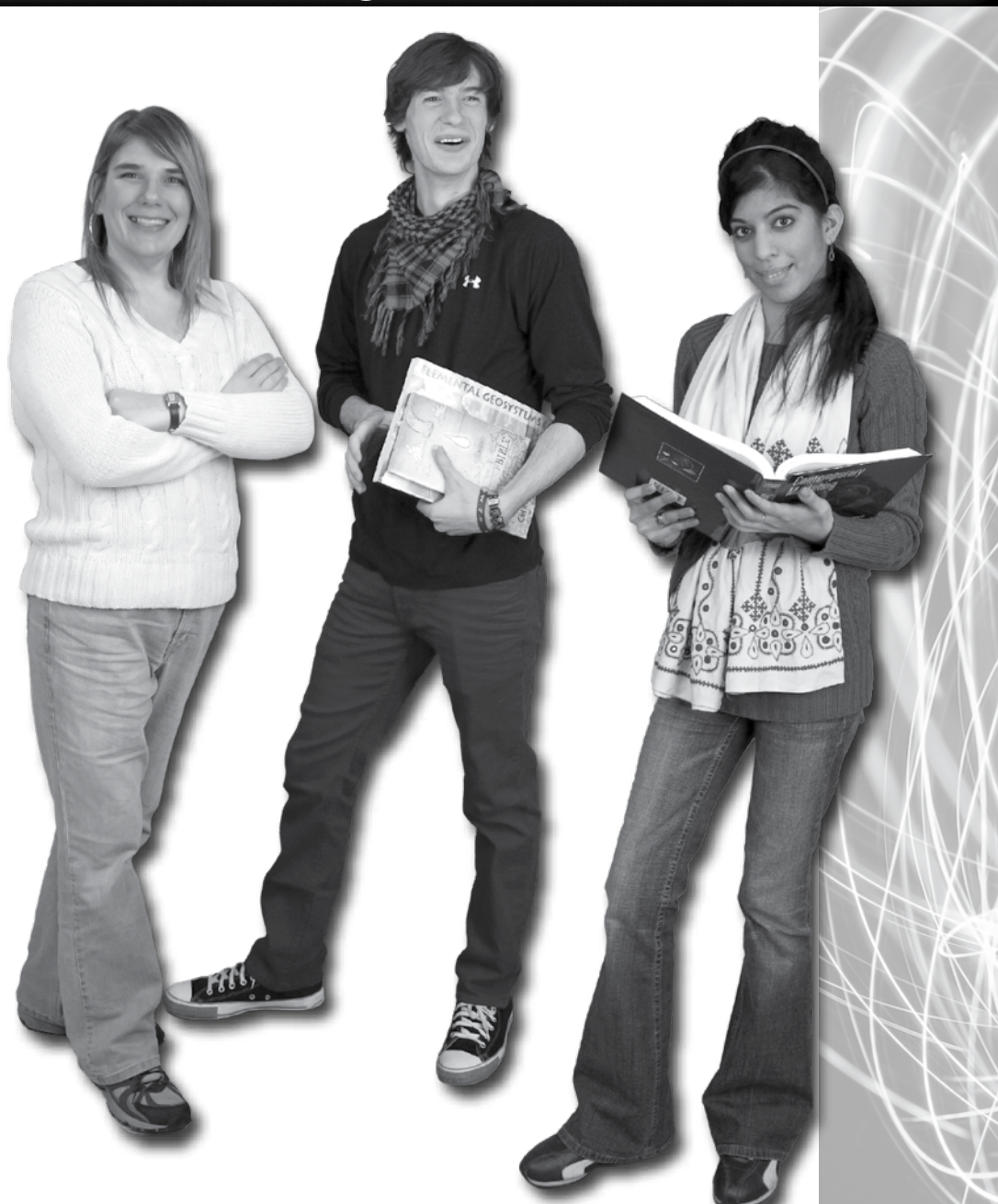
Schoolcraft College Academic Calendar

2011–2012

	FALL 2011					WINTER 2012					SPRING 2012		SUMMER 2012
	15 weeks	first 12 weeks	first 7 weeks	second 12 weeks	second 7 weeks	15 weeks	first 12 weeks	first 7 weeks	second 12 weeks	second 7 weeks	12 weeks	7 weeks	7 weeks
Class duration	Aug. 31	Aug. 31	Aug. 31	Sept. 21	Oct. 26	Jan. 14	Jan. 14	Jan. 14	Feb. 4	Mar. 17	May 14	May 14	July 7
Classes begin	Dec. 19	Nov. 22	Oct. 18	Dec. 18	Dec. 18	May 4	April 13	Mar. 2	May 4	May 4	Aug. 6	July 2	Aug. 22
Last day of classes	Dec. 22	Nov. 30	Oct. 21	Dec. 22	Dec. 22	May 9	April 18	Mar. 13	May 9	May 9	Aug. 9	July 6	Aug. 24
Final grades available	May 1					Sept. 1					Jan. 1		Mar. 1
Financial Aid dates: submit FAFSA deadline	July 1					Nov. 1					Mar. 1		May 1
financial aid file completed	Aug. 23–Sept. 17					Dec. 20–Jan. 21					May 2–20		June 27–July 15
purchase books in campus bookstore	n/a					May 4: Public Safety ceremony May 5: General commencement ceremony					n/a		n/a
Graduation ceremonies	Sept. 5: Labor Day Nov. 23–27: Thanksgiving Holiday Dec. 23–Jan. 2: Holiday Break					March 3–9: Mid-Winter Break— <i>No classes.</i> <i>Most on-campus services ARE available.</i> April 8: Easter					May 28: Memorial Day July 4: Independence Day Holiday		

DISCOVER

Programs of study



Schoolcraft
College

Graduation

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 Associate Dean, Dean, or the Vice President of Instruction.

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, mathematics, the biological and physical sciences, and the social sciences, which broaden a student's intellectual and cultural background.

In keeping with this philosophy, all entering students working toward an associate degree at Schoolcraft College must complete courses that fulfill the college's associate degree general education requirements. General education and the development of core skills ensure that Schoolcraft College graduates have a broad education and basic competence in communication, critical and creative thinking, and social, global and organizational dynamics.

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; some career programs require more than 60 credit hours.

In addition:

- At least 15 credit hours must be earned at Schoolcraft.
- During their last semester, students must complete an Application for Graduation with the Counseling Center before the deadline date posted on the Important Dates page on our Web site. The college Registrar will verify all requests to determine compliance with course requirements and the validity of course waivers, if applicable.

Multiple Degree Requirements

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

Certificates of Program Completion

Schoolcraft College awards three types of certificates. Certificate programs are career rather than transfer oriented. At least half of the required credit hours must be completed at Schoolcraft College. See page 14 for more detailed information on the certificates listed below:

- Skills Certificates
- Certificates
- Post-Associate Certificates

Applying for Graduation

Students who plan to earn an associate degree or a certificate of program completion must complete an Application for Graduation by making an appointment with a counselor before the deadline date posted on the Important Dates page on our Web site, for the semester or session during which they will complete degree requirements. The Registrar verifies the student for degree completion and, if appropriate, certifies the student for graduation. Degrees and certificates will be officially awarded and sent to the student approximately eight weeks after the end of the semester or session in which the student has completed the requirements and filed for the award.

Commencement Ceremony

The commencement ceremony is held each year at the end of the winter semester, usually in late April or early May. Schoolcraft 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. Commencement information is available on our Web site.



Degree and Certificate Requirements

Core Abilities and General Education

Schoolcraft College understands that student learning goals cover a wide spectrum. Some learners choose Schoolcraft for a specific career program and are primarily focused on a direct connection to an employment opportunity. Other learners choose Schoolcraft as the first step on a path to a four-year transfer institution. Still others choose programs for personal development. Regardless of the type of program a student chooses, essential elements are required to assure the provision of a transformational learning experience that increases the learner's capacity to achieve intellectual, social, and economic goals.

Schoolcraft College is committed to the belief that a sound education has its foundation in general education and the development of core abilities. By integrating core abilities into all courses and requiring completion of general education courses, Schoolcraft gives students the opportunity to acquire the knowledge, skills, and attitudes fundamental to achieving personal fulfillment and economic success.

Core Ability Requirements

Core abilities are broad outcomes or skills that every graduate of a Schoolcraft College associate degree is expected to achieve. These skills are important in every area of learning and are the skills employers and other stakeholders indicate are essential.

Schoolcraft College requires candidates for all associate degrees to demonstrate competency in the following core abilities:

- Communicate effectively
- Think creatively and critically
- Use technology effectively
- Use mathematics
- Manage information
- Work cooperatively
- Act responsibly
- Demonstrate social and cultural awareness

At least one core ability is addressed and assessed in every course. The associate degree programs outlined in the catalog will have all eight core ability expectations integrated into the overall program design.

General Education Course Requirements for the Associate Degree

General education is "general" in several clearly identifiable ways: It is part of every associate degree course of study, regardless of program area of emphasis; it is not directly related to a student's technical, vocational, or professional preparation; and it is intended to impart common knowledge, intellectual concepts, and attitudes that every educated person should possess. A well educated person is not a narrow specialist; instead, he or she is a person who is well rounded in his or her learning and experiences. The breadth of knowledge acquired in general education cannot be found in any single discipline or major.

The following course selections in English Composition, Humanities, Mathematics, Sciences, and Social Sciences constitute Schoolcraft's general education course distribution requirements for students seeking an associate degree. These course areas are recognized and reinforced by transfer institutions.

Please note that the minimum requirements listed here are necessary to meet the Schoolcraft College general education course distribution requirements. Many programs, particularly transfer programs, require more than the minimums listed here to address specific program outcome goals. Students should refer to their program of study for additional detail.

I. English Composition (Select one combination of courses based on program requirements)

English 101 & 102
English 100 & 106
English 100 & 116
English 101 & 106
English 101 & 107
English 101 & 116

II. Humanities (Select a minimum of one course)

Arabic (ARB)...101, 102, 201, 202
Art (ART)...105, 106, 109, 113, 115, 116, 118, 119, 125, 126, 201, 205, 211, 212, 218, 219, 236, 239, 243, 244, 248
Chinese (CHIN)...101, 102
Communications (COMA)...103, 200, 201, 210, 230
French (FR)...101, 102, 201, 202
German (GER)...101, 102, 201, 202
History (HIST)...134, 137, 138, 141, 151, 152, 153, 230
Humanities (HUM)...106, 150, 190, 201, 202, 203, 204, 210, 212, 215, 231, 232
Italian (ITAL)...101, 102
Literature (ENG)...170, 200, 203, 243, 244, 245, 246, 248, 251, 252, 275, 280
Music (MUSIC)...104, 105, 107, 149, 153, 154, 155, 164, 165, 250, 252
Philosophy (PHIL)...243, 247, 277
Spanish (SPAN)...101, 102, 201, 202
Theater (THEA)...101, 120, 121, 204, 207, 208, 209, 220, 221, 231, 232, 241

III. Mathematics (Select a minimum of one course)

Mathematics (MATH)...101, 105, 106, 111, 113, 119, 122, 128, 129, 135, 145, 150, 151, 230, 240, 252

IV. Sciences (Select a minimum of one course)

Biology (BIOL)...101, 103, 104, 105, 114, 115, 120, 130, 140, 236, 237, 238, 240, 243
Chemistry (CHEM)...100, 111, 117, 120, 213, 214
Geography (GEOG)...105, 135, 203, 212, 217
Geology (GEOL)...133, 134, 237
Physics (PHYS)...104, 123, 181, 182, 211, 212

V. Social Sciences (Select a minimum of one course)

Anthropology (ANTH)...112, 117, 201, 211, 214
Economics (ECON)...103, 201, 202
Geography (GEOG)...133, 241
History (HIST)...134, 137, 138, 141, 151, 152, 153, 230
Political Science (POLS)...105, 109, 205, 207, 209
Psychology (PSYCH)...153, 201, 205, 207, 209, 219, 229, 239
Sociology (SOC)...201, 205, 209, 210, 220, 290

Assessment of Core Abilities

Each student will be held accountable to demonstrate competence in the core abilities through course level learning activities and related assessment. At the institutional level, a sampling of students' work will be reviewed, using established standards, to provide assurance that students, in aggregate, are able to demonstrate competency in the defined core abilities. This assessment may occur through standardized exams, capstone courses, portfolios, internships or other data collection methods. This review will provide the college with an opportunity to assess its effectiveness in preparing students in these core areas and to inform necessary improvement strategies.

Assessment of General Education and Program Outcomes

Each program outlined in the catalog has a set of established program outcomes that are linked to course competencies and learning objectives. Program outcomes for the transfer programs are the institutional general education outcomes. At the program level, a sampling of students' work will be reviewed to provide assurance that students, in program aggregate, are able to demonstrate competency in the defined program outcomes. This assessment may occur through standardized exams, capstone courses, portfolios, internships or other end of program data collection methods. This review will provide the college with an opportunity to assess its effectiveness in preparing students in the career programs, and in general education through the transfer programs, and to inform necessary improvement strategies.

Career Programs

Schoolcraft College offers excellent career programs for students seeking education and skills to successfully enter the job market or to advance their current career. Students selecting career programs can earn various certificates or an applied science degree. Schoolcraft College's career programs satisfy both students' interests and changing employment needs. With instructor emphasis on applied job-specific knowledge and skills, students are prepared to enter challenging specialized careers after just two years of college or less, depending on full- or part-time status. A complete list of all of the programs offered at Schoolcraft College can be found on pages 26–28.

Although career programs are designed primarily to prepare students for the workplace rather than transfer to a four-year university, many career courses and programs can transfer to other colleges and universities. For more information about transfer options see pages 16–25.



Requirements for a Career Program Degree

ASSOCIATE IN APPLIED SCIENCE (AAS)

By obtaining an associate in applied science degree, students will be prepared to seek employment in their chosen career field. To explore transferability options, it is recommended that students meet with a counselor or academic advisor.

1. English—6 credit hours as specified by individual curriculum.
2. Completion of one of the career programs listed in the Schoolcraft College catalog.
3. All courses that apply to this degree must be at the 100- or 200-level.
4. Complete all Schoolcraft College core ability and general education requirements.

Certificates of Program Completion

Schoolcraft College awards three types of certificates. Skills certificates generally are awarded before earning a certificate. The certificate is generally awarded before earning an associate degree. The post-associate certificate is awarded after receiving an associate degree. Certificate programs are career, rather than transfer, oriented. Certificates do not require the completion of the Schoolcraft College general education requirements or the demonstration of competency in all eight core ability areas. However, at least one core ability is targeted and assessed in every course leading to certificate completion, and students will be expected to meet the core ability integrated into each program course.

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

Skills Certificates

Skills certificates average five or six courses requiring 16–19 credit hours. At least half of the required credit hours for skills certificates must be earned at Schoolcraft College and a minimum 2.0 grade-point average maintained. The courses for many skills certificates are in the companion certificate.

Certificates

Certificates average 10–12 courses, requiring 27–47 credit hours. At least half of the required credit hours for certificates must be earned at Schoolcraft College and a minimum 2.0 grade-point average maintained. The courses for many certificates are in the companion certificate program.

Post-Associate Certificates

Post-associate certificates average five or six courses, requiring an average of 15 credit hours. A student may enter the post-associate program after earning an associate degree from Schoolcraft or another college. The courses within the post-associate certificate are designed to provide higher level specialized training in job-related skills. At least half of the required credit hours for post-associate certificates must be earned at Schoolcraft College and a minimum 2.0 grade-point average maintained.

Transfer Options

Transferring *In* to Schoolcraft College

Schoolcraft College understands that our students come to us from other institutions or have earned college-level learning from non-college sources. There are many options for evaluating prior learning and/or college-level credit earned outside of Schoolcraft College:

- College Credit
- Articulated Credit
- Credit By Examinations
- Equivalency Credit
- Advanced Placement
- CLEP/DANTES National Credit By Examination Program

College Credit

Students who have attended another college or university should request official transcripts from that institution in order for Schoolcraft to evaluate the courses. Official transcripts must be sent directly from the institution to Schoolcraft College.

Previous college credit is evaluated based on the following:

- Courses must be college-level (100-level or higher)
- College or university must be regionally-accredited, as recognized by the US Department of Education
- Courses must have a grades of “C” or better listed on the transcript (some programs may require a higher level of academic achievement)

Courses are evaluated based on the academic program the student selects at the time of admission to Schoolcraft College. Note that only credit hours are transferred; not the previous grade earned.

Students with college credit earned from an institution outside of the United States should have transcripts evaluated through an independent source. Currently, we accept evaluations from ECE (www.ece.org) or WES (www.wes.org) evaluation services.

Articulated Credit

Schoolcraft College has articulation agreements with several area high schools and career/technical centers. The articulation agreements allow high school students in specific programs to earn college credit. Refer to the articulation agreement section on www.schoolcraft.edu/transfer for specific information. Note that articulated credit is intended for use only by Schoolcraft College and the high school or the career/technical center.

Credit by Examination

Schoolcraft College students may request credit by examination 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 the Assistant/Associate Deans' or Deans' Offices.

Equivalency Credit

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

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

A minimum number of credit hours earned at Schoolcraft is required before the equivalency credit is posted to the student's record. Students must pay appropriate per-credit-hour fees.

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 Admissions and Enrollment Center as early as possible. Requests for credit from International Baccalaureate (IB) will be reviewed on an individual basis.

CLEP/DANTES National Credit by Examination Programs

The College Level Examination Program and the DANTES Subject Standardized Tests Program offer students the opportunity to obtain college credits based on satisfactory test score completion. Contact the Testing Center for test registration information. See page 153 for more information.



Transferring *Out* of Schoolcraft College

Many students at Schoolcraft attend the college specifically to transfer out to earn a bachelor's degree. Schoolcraft College has collaborated with most Michigan public and private colleges and universities to provide you with different pathways to transfer to their institution:

- Transfer Associate degrees
- Articulation Agreements
- MACRAO Transfer Agreement
- Transferring Individual Courses

Regardless of which pathway to a bachelor's degree is selected, students should work with their counselor or academic advisor to create a detailed transfer plan. Transfer requirements are constantly changing; by working with a counselor or academic advisor, the student ensures that the plan reflects these changes. It is up to the discretion of the four-year college or university to determine how the Schoolcraft College credits will be utilized at their institution.

	Year 1 30 credits	Year 2 30 credits	Year 3 30 credits	Year 4 30 credits
Articulations and Special Agreements	70 to 90* credits at Schoolcraft <i>Graduate with associate degree</i>			30 or more credits* at a four-year college or university <i>Graduate with bachelor's degree</i>
Transfer Associate Degrees	60 credits* at Schoolcraft <i>Graduate with associate degree</i>		60 credits* at four-year college or university <i>Graduate with bachelor's degree</i>	
MACRAO Transfer Agreement	30 or more credits at Schoolcraft <i>These credits can stand alone or be part of a Schoolcraft associate degree</i>		60 to 90 credits* at four-year college or university <i>Graduate with bachelor's degree</i>	
Individual Courses	Schoolcraft offers hundreds of courses that can be transferred to four-year colleges and universities			
Guest Students	Students at other colleges and universities can enroll at Schoolcraft as guest students.			
	Total credits earned: 30	Total credits earned: 60*	Total credits earned: 90	Total credits earned: 120*

* Credit counts are approximate. The exact number of hours required for an associate or bachelor's degree varies by program and by institution. See a counselor or academic advisor to learn about credit and course requirements for specific programs.

Transfer Associate Degrees

Although useful for many individuals, the featured articulations and special agreements do not meet the needs of every Schoolcraft student. To further broaden a student's options, Schoolcraft offers four associate degrees that are designed for transfer to four-year colleges and universities: The Associate in Arts (AA), Associate in Engineering (AE), Associate in Science (AS), and Associate in General Studies (AGS). With the help of a Schoolcraft counselor or academic advisor, these associate degrees can be customized to meet the student's interests and to fulfill the transfer requirements of a four-year college or university.

Candidates for one of these Schoolcraft associate degrees must satisfy the specific degree requirements listed below, including completion of the Schoolcraft College core ability and general education requirements.

ASSOCIATE IN ARTS (AA)

The associate in arts degree is for students who plan to transfer to a four-year college or university. The associate in arts degree is appropriate for most transfer programs leading to a baccalaureate degree.

1. English 101 and 102 required—6 credit hours.
2. Humanities*—8 credit hours in more than one discipline.
Art, Foreign Language, History, Literature, Music, Philosophy, Communication Arts, Theatre or Humanities.
One course must be either a Communication Arts or a Foreign Language course.
3. Mathematics/Sciences—8 credit hours.
One course must be a laboratory science course.
Biology, Chemistry, Physical Geography, Geology, Mathematics or Physics.
4. Social Sciences*—8 credit hours in more than one discipline.
Anthropology, Economics, World Regional Geography, History, Political Science, Psychology or Sociology.
5. General Electives—30 credit hours.
Electives must be chosen from transferable 100- or 200-level courses.
6. All courses that apply to this degree must be at the 100- or 200-level.
7. Complete all Schoolcraft College core ability and general education requirements.

* Please note: Students may not use the same History course to satisfy both the Humanities and Social Sciences distribution requirement.

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, Philosophy, Communication Arts, Theatre or Humanities.
3. Mathematics/Sciences—34 credit hours.
Chemistry 111 required.
Physics 211 and 212 required.
Math 150, 151, 240 and 252 required.
4. Social Sciences*—7 credit hours.
Economics 201 required.
5. Additional classes to satisfy all Schoolcraft College core ability and general education requirements and transfer institutions—7–15 credit hours.
6. All courses that apply to this degree must be at the 100- or 200-level.

* Please note: Students may not use the same History course to satisfy both the Humanities and Social Sciences distribution requirement.

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, Philosophy, Communication Arts, Theatre or Humanities.
3. Mathematics/Sciences—20 credit hours.
One course must be a laboratory course.
One course must be a math course.
Biology, Chemistry, Physical Geography, Geology, Mathematics or Physics.
4. Social Sciences*—8 credit hours.
Anthropology, Economics, World Regional Geography, History, Political Science, Psychology or Sociology.
5. General Electives—18 credit hours.
Electives must be chosen from transferable 100- or 200-level courses.
6. All courses that apply to this degree must be at the 100- or 200-level.
7. Complete all Schoolcraft College core ability and general education requirements.

* Please note: Students may not use the same History course to satisfy both the Humanities and Social Sciences distribution requirement.



ASSOCIATE IN GENERAL STUDIES (AGS)

The associate in general studies degree is for students who wish to earn an associate degree that may transfer to a college or university through an individualized program of study.

1. English 101 and 102 required—6 credit hours.
 2. Humanities*—8 credit hours.
Art, Foreign Language, History, Literature, Music, Philosophy, Communication Arts, Theatre or Humanities.
 3. Mathematics/Sciences—8 credit hours.
One course must be a laboratory course.
One course must be a math course.
Biology, Chemistry, Physical Geography, Geology, Mathematics or Physics.
 4. Social Sciences*—8 credit hours.
Anthropology, Economics, World Regional Geography, History, Political Science, Psychology or Sociology.
 5. General Electives—30 credit hours.
Electives must be chosen from 100- or 200-level courses.
 6. All courses that apply to this degree must be at the 100- or 200-level.
 7. Complete all Schoolcraft College core ability and general education requirements.
- * Please note: Students may not use the same History course to satisfy both the Humanities and Social Sciences distribution requirement.

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.
Mathematics/Sciences—12 credit hours required.
One course must be a laboratory course.
One course must be a math course
Social Sciences*—12 credit hours required.
 3. General Electives—30 credit hours.
Electives must be chosen from 100- or 200-level courses.
 4. All courses that apply to this degree must be at the 100- or 200-level.
 5. Complete all Schoolcraft College core ability and general education requirements.
- * Please note: Students may not use the same History course to satisfy both the Humanities and Social Sciences distribution requirement.

Program Substitution or Changes**Substitution—Waiver**

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

Change of Curriculum or Program

A change in a program of study or curriculum must be recorded on a data form available in the Admissions and Enrollment Center in the McDowell Center.

Typical Program Outlines for Popular Transfer Degrees

Business, education, engineering and health care are among the most popular degree paths chosen by Schoolcraft College students. Also popular is a liberal arts curriculum that provides the basic general education courses at the freshman and sophomore level for transfer to a four-year college or university.

The following pages offer typical program outlines for these transfer associate degrees.

- Business Administration
- Education, Elementary
- Engineering
- Health Related
- Liberal Arts

Specific course requirements will vary depending on the four-year college or university to which the student plans to transfer. Students should see a counselor or academic advisor in order to develop an academic plan that is specific to their destination college or university.

Transfer information is also available online at www.schoolcraft.edu/transfer.



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

Refer to the selected transfer institution and Schoolcraft College degree requirements.

ENG 101	English Composition 1.....	3
ENG 102	English Composition 2.....	3

Select from two disciplines or more.

COMA 103	Fundamentals of Speech	3
or		
Foreign Language		4
Additional Humanities requirement.....		4-5

Refer to transfer guides for specific institution requirements.

One lab science course and one math course are required.

MATH 122 or	Elementary Statistics.....	4
MATH 135 or	Finite Mathematics.....	4
MATH 145 or	Calculus for Business and Social Science.....	4
MATH 150	Calculus With Analytic Geometry 1	5
BIOL 101 or	General Biology	4
CHEM 111 or	General Chemistry 1	4
GEOL 133 or	Physical Geology	4
PHYS 104	Introduction to Astronomy	4

Refer to transfer guides for specific institution requirements.

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

Select from two disciplines or more.

Social Science requirements 8

Refer to transfer guides for specific institution requirements.

ACCT 201/202	Principles of Accounting 1 & 2.....	8
ECON 201/202	Principles of Economics (macro and micro).....	8

BUS 207	Business Law 1	3
BUS 217	Business Management.....	3
BUS 226	Principles of Marketing.....	3
CIS 115	Introduction to Computer Based Systems.....	3
CIS 120	Software Applications	3

Refer to transfer guides for specific institution requirements.

PROGRAM TOTAL 60 CREDITS

This typical program outline provides the framework for a Business Administration transfer degree but it does not represent a final academic plan for a specific four-year college or university. Students should work with a counselor or academic advisor to identify course requirements that are specific to the college to which they plan to transfer.

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

Notes:

[illegible]

EDUCATION, ELEMENTARY TRANSFER OUTLINE

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

Associate Degree Requirements

Refer to the selected transfer institution and Schoolcraft College degree requirements.

English Composition Requirements

ENG 101	English Composition 1	3
ENG 102	English Composition 2.....	3

Refer to transfer guides for specific institution requirements.

Humanities *Minimum 8 credits*

Select from two disciplines or more

COMA 103	Fundamentals of Speech	3
or		
Foreign Language		4
ART 113	Art Education	3
ENG 203	Children's Literature	3
MUSIC 107	Music for Elementary Teachers	4

Refer to transfer guides for specific institution requirements.

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

One lab science course and one math course are required.

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

Higher level MATH

Refer to transfer guides for specific institution requirements.

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

Social Science *Minimum 8 credits*

Select from two disciplines or more.

POLS 105	Survey of American Government	3
PSYCH 201	Introductory Psychology	4
SOC 201	Principles of Sociology	3

Refer to transfer guides for specific institution requirements.

Additional Courses and/or Electives

PE 240	Physical Education for Elementary Teachers.....	3
GEOG 133	World Regional Geography.....	4
HIST 151	Early America—U.S. History	3
CCD 216	The Child With Special Needs.....	3
Major	Refer to transfer institution	3–20
Minor	Refer to transfer institution.....	3–17

Refer to transfer guides for specific institution requirements.

PROGRAM TOTAL 60–65 CREDITS

This typical program outline provides the framework for an Education, Elementary transfer degree but it does not represent a final academic plan for a specific four-year college or university. Students should work with a counselor or academic advisor to identify course requirements that are specific to the college to which they plan to transfer.

Notes:

[illegible]

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

Refer to the selected transfer institution and Schoolcraft College degree requirements.

ENG 101	English Composition 1.....	3
*ENG 102	English Composition 2.....	3

*Some institutions require ENG 116.

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

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

ECON 201	Principles of Macroeconomics.....	4
Additional Social Science requirement.....		3

ECON 202	Principles of Microeconomics	4
ENGR 100	Introduction to Engineering and Technology.....	3
ENGR 201	Statics	3
ENGR 202	Mechanics of Materials	3
ENGR 203	Dynamics	4
CAD 103	Engineering Graphics.....	3
CIS 211	Introduction to C++.....	2
CIS 221	Advanced C++	2
MATH 230	Linear Algebra.....	4

PROGRAM TOTAL 60 CREDITS

This typical program outline provides the framework for an Engineering transfer degree but it does not represent a final academic plan for a specific four-year college or university. Students should work with a counselor or academic advisor to identify course requirements that are specific to the college to which they plan to transfer.

[illegible]

HEALTH RELATED TRANSFER OUTLINE

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

Associate Degree Requirements

Refer to the selected transfer institution and Schoolcraft College degree requirements.

English Composition Requirements

ENG 101	English Composition 1.....	3
ENG 102	English Composition 2.....	3

Humanities *Minimum 8 credits*

Select from two disciplines or more.

COMA 103	Fundamentals of Speech	3
or		
Foreign Language		4
Additional Humanities requirement.....		4-5

Refer to transfer guides for specific institution requirements.

Mathematics and Science/Lab *Minimum 20 credits*

One lab science course and one math course are required.

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

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

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

CHEM 111	General Chemistry	4
CHEM 117	General Chemistry and Qualitative Analysis	5
CHEM 120	Organic and Biochemistry	4
CHEM 213	Organic Chemistry 1	5
CHEM 214	Organic Chemistry 2	5
PHYS 181	General Physics 1	4
PHYS 182	General Physics 2	4

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

MATH 111	Applications–Utility of Math.....	4
MATH 113	Intermediate Algebra for College Students.....	4
MATH 119	Trigonometry.....	3
MATH 122	Elementary Statistics.....	4
MATH 119/128	Trigonometry/Precalculus-Without Trigonometry.....	7
MATH 119/129	Trigonometry/Precalculus With Trigonometry	8
MATH 150	Calculus with Analytic Geometry 1	5

Social Science *Minimum 8 credits*

Select from two disciplines or more.

Social Science requirements 8

Refer to transfer guides for specific institution requirements.

Suggested Electives *Minimum of 18 credits*

BIOL 115	Nutrition	3
CIS 115	Introduction to Computer Based Systems.....	3
CIS 120	Software Applications	3

Refer to transfer guides for specific institution requirements.

PROGRAM TOTAL 60 CREDITS

This typical program outline provides the framework for a Health Related transfer degree but it does not represent a final academic plan for a specific four-year college or university. Students should work with a counselor or academic advisor to identify course requirements that are specific to the college to which they plan to transfer.

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

Notes:

[illegible]

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

Refer to the selected transfer institution and Schoolcraft College degree requirements.

ENG 101	English Composition 1.....	3
ENG 102	English Composition 2.....	3

Select from two disciplines or more.

COMA 103 Fundamentals of Speech 3
or

Additional Humanities requirement.....4-5

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

Refer to transfer guides for specific institution requirements.

One lab science course and one math course are required.

Choose from:

Biology	Geology	Chemistry
Mathematics	Physical Geography	Physics

Refer to transfer guides for specific institution requirements.

Select from two disciplines or more.

Choose from:

Anthropology	Political Science	Economics
Psychology	Sociology	History
World Regional Geography		

Refer to transfer guides for specific institution requirements.

General Electives 30

Refer to transfer guides for specific institution requirements.

PROGRAM TOTAL 60 CREDITS

Notes:

[illegible]

Articulation Agreements

Articulation agreements that pair a specific Schoolcraft College associate degree with a specific bachelor's degree program have been developed with a number of four-year colleges and universities, including:

Cleary University	Lawrence Technological University
Davenport University	Madonna University
Eastern Michigan University	Northwood University
Ferris State University	University of Detroit Mercy
Franklin University Alliance	

Many of the agreements allow students to take additional credits beyond the associate degree requirements, which help students save money while completing degree requirements needed for the bachelor's degree. An updated list of articulation agreements is available online at www.schoolcraft.edu/transfer.

MACRAO Transfer Articulation Agreement

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

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

Adrian College*	Madonna University*
Albion College	Marygrove College
Baker College	Michigan State University*
Calvin College*	Michigan Technological University*
Central Michigan University	Northern Michigan University*
Cleary University	Northwood University
Concordia University*	Oakland University*
Davenport University	Olivet College
Eastern Michigan University*	Rochester College
Ferris State University*	Saginaw Valley State University*
Finlandia University*	Siena Heights University*
Grand Valley State University*	Spring Arbor University
Lake Superior State University	Western Michigan University
Lawrence Technological University*	<i>*Provisions, Limitations and Exceptions</i>

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

Required MACRAO Coursework

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

Students must complete the distribution of coursework listed below:

- English Composition (ENG 101 and 102) 6 credit hours
- Humanities..... 8 credit hours
- Social Science..... 8 credit hours
- Mathematics/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.
- Students working to obtain the MACRAO designation on their Schoolcraft transcript must earn at least one-half (15 credit hours) of the MACRAO applicable courses at Schoolcraft College. Courses used in fulfilling the MACRAO certification must have grades at a 2.0 or higher.
- Transcripts of associate in arts or associate in science degrees, for graduates who qualify, will be stamped "MACRAO Agreement Satisfied."
- Students meeting the MACRAO Transfer Agreement, but not receiving an associate in arts degree or associate in science degree, must request that transcripts be stamped, "MACRAO Agreement Satisfied," by contacting the Student Records Office.

MACRAO Transfer Requirements

I. English Composition (6 credits)

English Composition (ENG)...101, 102

II. Humanities (8 credits or more in more than one discipline)

Arabic (ARB)...101, 102, 201, 202

Art (ART)...105, 106, 109, 113, 115, 116, 118, 119, 125, 126, 201, 205, 211, 212, 218, 219, 236, 239, 243, 244, 248

Chinese (CHIN)...101, 102

Communications (COMA)...103, 200, 201, 210, 230

Literature (ENG)...170, 200, 203, 243, 244, 245, 246, 248, 251, 252, 275, 280

French (FR)...101, 102, 201, 202

German (GER)...101, 102, 201, 202

History (HIST)...134, 137, 138, 141, 151, 152, 153, 230

Humanities (HUM)...106, 150, 190, 201, 202, 203, 204, 210, 212, 215, 231, 232

Italian (ITAL)...101, 102

Music (MUSIC)...104, 105, 107, 149, 153, 154, 155, 164, 165, 250, 252

Philosophy (PHIL)...243, 247, 277

Spanish (SPAN)...101, 102, 201, 202

Theater (THEA)...101, 120, 121, 204, 207, 208, 209, 220, 221, 231, 232, 241

III. Sciences (8 credits or more in more than one discipline)

Italicized course numbers contain a lab

Biology (BIOL)...101, 103, 104, 105, 114, 115, 120, 130, 140, 236, 237, 238, 240, 243

Chemistry (CHEM)...100, 111, 117, 120, 213, 214

Geography (GEOG)...105, 135, 203, 212, 217

Geology (GEOL)...133, 134, 237

Mathematics (MATH)...101, 105, 106, 111, 113, 119, 122, 128, 129, 135, 145, 150, 151, 230, 240, 252

Physics (PHYS)...104, 123, 181, 182, 211, 212

IV. Social Sciences (8 credits or more in more than one discipline)

Anthropology (ANTH)...112, 117, 201, 211, 214

Economics (ECON)...103, 201, 202

Geography (GEOG)...133, 241

History (HIST)...134, 137, 138, 141, 151, 152, 153, 230

Political Science (POLS)...105, 109, 205, 207, 209

Psychology (PSYCH)...153, 201, 205, 207, 209, 219, 229, 239

Sociology (SOC)...201, 205, 209, 210, 220, 290

Transferring Individual Courses

Hundreds of the courses described in this catalog are potential transfer courses, depending on the four-year college or university to which a student is transferring. When considering transferability, it is helpful to remember that even though courses *transfer*, they may not *apply* to a specific degree program. When a course transfers to an institution, it may satisfy either a general education requirement, a pre-program requirement, a program requirement or an elective. Students should work closely with a counselor or academic advisor to review transfer courses, as well as checking with the receiving institution on the course applicability. Students can also go online to www.michigantransfERNETWORK.org to check on individual course transferability.

Guest Students

Students at other colleges can enroll as guest students at Schoolcraft. Many guest students take Schoolcraft classes over the spring and summer and then transfer the credits to their home institution. An increasing number of guest students are earning transferable credit through Schoolcraft's extensive online offerings. To learn more, refer to the Guest Students section in the Admissions portion of this catalog.

Reverse Transfer

Credits earned at other accredited community colleges and four-year colleges and universities can be applied to a Schoolcraft certificate or associate degree. Students should consult a counselor or academic advisor to determine if any of the credits they've earned elsewhere qualify for transfer to Schoolcraft.

Transfer Check List

- ☒ Meet with a Schoolcraft College counselor or academic advisor to keep current with transfer issues, obtain transfer and career information, and to ensure transferability of courses.
- ☒ Identify the four-year college or university of your choice as early as possible.
- ☒ Meet with a Schoolcraft College counselor or academic advisor to satisfy your associate degree requirements, and review how the transfer guide from the four-year college or university can be built into those degree requirements as well as the MACRAO transfer agreement, if applicable.
- ☒ Attend transfer events either at Schoolcraft or at the institution you are transferring to. College recruiters visit Schoolcraft College throughout the fall and winter semesters. More information can be found at www.schoolcraft.edu/transfer under "On-campus recruiting."
- ☒ Apply to the four-year college or university of your choice in a timely manner. Online admission applications are available at www.macrao.org. Make sure to check the application deadlines.
- ☒ After applying to the institution, request official transcripts from Schoolcraft College by completing the online transcript request form, available via WebAdvisor. If requesting the MACRAO transfer agreement stamp, submit your transcript request in person at the Admissions and Enrollment Center.



Departments and Programs

Students can choose from more than 60 different areas of study at Schoolcraft College. In addition, Schoolcraft offers a variety of paths by which students can pursue their education and career goals.

Skills certificates average five or six courses, requiring 16–19 credit hours. Most skills certificates can be completed in only one or two semesters of full-time study.

Certificates average 10–12 courses, requiring 27–47 credit hours, depending on the program. By attending Schoolcraft College full-time, students can earn a certificate in as little as two or three semesters. Most credits earned for a certificate can also be applied to an associate degree in the same, or a similar, area of study.

Associate degrees average 20–22 courses, requiring 60–74 credit hours, depending on the program. Associate degrees generally take four or five semesters of full-time study, or approximately two years to complete. Career program degrees are designed to prepare students for employment upon completion of their associate degree. Transfer associate degrees, which are offered in several areas of

study, are designed to prepare those students who plan to transfer to a four-year college or university after completing their coursework at Schoolcraft College.

Post-associate certificates average five or six courses, requiring an average of 15 credit hours. They can generally be completed in one or two semesters of full-time study. A student may enter a post-associate program after earning an associate degree from any accredited college, and provides the degree holder with advanced job skills.

Courses are offered in a number of subject areas to which there is not a certificate or degree program available. However many of these courses can be applied toward a Schoolcraft certificate or degree in another area of study. These courses can be taken for personal or professional interest, or for transfer to a four-year college or university.

Note: The codes listed in the chart below represent Program Codes that are used in the application process and as a part of a student's academic record at Schoolcraft College.

Departments and Programs	Skills certificate: requires approximately 16–19 credit hours	Certificate: requires approximately 27–47 credit hours	Associate/Transfer degree: requires approximately 60–74 credit hours	Post-associate certificate: requires approximately 15+ credit hours	Courses only
Accounting		1YC.00001	AAS.00005		
Accounting for Small Business	CRT.00365				
Allied Health Education					✓
Anthropology			‡		✓
Arabic			‡		✓
Art and Design			‡		✓
Aviation Management	CRT.00302		AAS.00261		
Biology			‡		✓
Biomedical Engineering Technology •			AAS.00128	PAC.00178	
Broadcast Communications (in conjunction with Specs Howard School of Broadcasting)			AAS.00041		
Business		1YC.00002	AAS.00008		
Business—Marketing and Applied Management			AAS.00009		
Business—Small Business for Entrepreneurs		1YC.00213	AAS.00011		
Business Information Technology		1YC.00242	AAS.00277		
Business Transfer <i>May be applicable in such areas as Accounting, Computer Information Systems, Finance, Human Resource Management, International Business, Management and Marketing.</i>			AA.00500		
Chemistry			‡		✓
Child Care and Development	CRT.00315	1YC.00031	AAS.00020		
Child Care and Development—Special Needs Paraprofessional		1YC.00032	AAS.00021		
Chinese			‡		✓
College and Beyond					✓
Collegiate Skills					✓
Communication Arts			‡		✓

Most of the associate degree programs offered by Schoolcraft College are transferable to four-year colleges and universities. Consult with your counselor or academic advisor to ensure your credits will transfer.

• Student must be officially admitted to the Limited/Restricted Enrollment Program prior to enrolling in core/major courses. Call the Admissions and Enrollment Center at 734-462-4426 for more information.

‡ These areas of study may be applicable toward Transfer associate degrees.

Departments and programs list continued →

Departments and Programs continued	Skills certificate: requires approximately 16–19 credit hours	Certificate: requires approximately 27–47 credit hours	Associate/Transfer degree: requires approximately 60–74 credit hours	Post-associate certificate: requires approximately 15+ credit hours	Courses only
Computer Aided Design—Mechanical			AAS.00170		
Computer Aided Drafting—Technical		1YC.00119			
Computer Graphics Technology				PAC.00181	
Computer Graphics Technology—3D Animation		1YC.00136			
Computer Graphics Technology—3D and Video Graphics			AAS.00028		
Computer Graphics Technology—Digital Art		1YC.00136	AAS.00028		
Computer Graphics Technology—Foundation	CRT.00364				
Computer Graphics Technology—Graphic Design			AAS.00028		
Computer Graphics Technology—Interactive Media and Game Design		1YC.00136	AAS.00028		
Computer Graphics Technology—Publishing		1YC.00136			
Computer Graphics Technology—Video Graphics		1YC.00136			
Computer Graphics Technology—Web Design		1YC.00136			
Computer Information Systems				PAC.00155	
Computer Information Systems—Introductory		1YC.00004			
Computer Information Systems—Microcomputer Support Technician			AAS.00014		
Computer Information Systems—Networking Technology Integration		1YC.00270			
Computer Information Systems—Programming	CRT.00366		AAS.00012		
Computer Information Systems—Web Specialist		1YC.00241	AAS.00275		
Computer Service Technician		1YC.00159			
Correctional Science					✓
Cosmetology Management			AAS.00010		
Criminal Justice			AAS.00086		
Criminal Justice with Academy			AAS.00086		
Culinary Arts •		1YC.00079	AAS.00087		
Culinary Baking and Pastry Arts •		1YC.00247			
Culinary Management					✓
Design					✓
Economics			‡		✓
Education Transfer <i>May be applicable in such areas as Elementary and Special Education.</i>			AA.00700		
Electronic Technology	CRT.00320	1YC.00125	AAS.00120		
Emergency Medical Technology Paramedic •		1YC.00024	AAS.00250		
Engineering Transfer <i>May be applicable in such special engineering areas as Chemical, Civil, Computer Systems, Electrical, Environmental, Industrial, Manufacturing, Materials Science, Mechanical and Sustainability.</i>			AE.00039		
English			‡		✓
English as a Second Language					✓
Environmental Studies		1YC.00276	AAS.00176		
Fire Technology		1YC.00149	AAS.00177		
Fire Technology with Academy			AAS.00177		
French			‡		✓
Geography			‡		✓
Geology			‡		✓
German			‡		✓
Health Information Technology •			AAS.00153		
Health Information Technology—Coding Specialist •		1YC.00240			
Most of the associate degree programs offered by Schoolcraft College are transferable to four-year colleges and universities. Consult with your counselor or academic advisor to ensure your credits will transfer.					

• Student must be officially admitted to the Limited/Restricted Enrollment Program prior to enrolling in core/major courses. Call the Admissions and Enrollment Center at 734-462-4426 for more information.

‡ These areas of study may be applicable toward Transfer associate degrees.

Departments and programs list continued →

Departments and Programs continued

**Skills certificate:
requires
approximately
16–19
credit hours**

**Certificate:
requires
approximately
27–47
credit hours**

**Associate/Transfer
degree: requires
approximately
60–74
credit hours**

**Post-associate
certificate:
requires
approximately
15+ credit hours**

**Courses
only**

Health Transfer <i>May be applicable in such health and science specialties as Biology, Chemistry, Dental Hygiene, Nursing, Occupational Therapy, Pre-Dental, Pre-Medicine, Pre-Pharmacy, Pre-Physical Therapy and Pre-Physician Assistant.</i>			AA.00600		
History			‡		✓
Homeland Security			AAS.00252		
Human Development Services					✓
Humanities			‡		✓
Italian			‡		✓
Learning Resources					✓
Liberal Arts Transfer <i>May be applicable in a wide range of areas of study such as Anthropology, Art, Communications, Conservation, Criminal Justice, Economics, English, Fine Arts, Foreign Language, Geography, Geology, History, Mathematics, Music, Philosophy, Political Science, Psychology, Secondary Education, Social Work, Sociology, Statistics and Theatre.</i>			AA.00042		
Manufacturing—Advanced Manufacturing	CRT.00337	1YC.00237	AAS.00135		
Massage Therapy •		1YC.00255	AAS.00266		
Mathematics			‡		✓
Medical Assisting •		1YC.00026			
Medical Assisting—Medical Biller/Receptionist	CRT.00350				
Medical Assisting—Phlebotomy	CRT.00325				
Medical Assisting—Physician Office Medical Transcription	CRT.00330				
Medical Transcription •		1YC.00029			
Metallurgy and Materials Science		1YC.00124	AAS.00184	PAC.00179	
Music—Foundations		1YC.00162			
Music—Intermediate		1YC.00163			
Music—Piano Teacher		1YC.00115			
Nursing •		1YC.00017	AAS.00000		
Nursing Assistant Training Program •	CRT.00321				
Office Information Systems	CRT.00370	1YC.00166	AAS.00133		
Philosophy			‡		✓
Physical Education					✓
Physics			‡		✓
Political Science			‡		✓
Psychology			‡		✓
Quality Management					✓
Sociology			‡		
Sound Recording Technology		1YC.00144	AAS.00244		
Spanish			‡		✓
Theatre			AA.00042		
Welding—Fabrication		1YC.00127			
Welding—Joining Technology			AAS.00082		
Associate Degree Seeking, Undecided			00800		
Transfer Degree Seeking, Undecided			00801		
Non-Degree Seeking (federal financial aid is not available for this program code)			00900		

Most of the associate degree programs offered by Schoolcraft College are transferable to four-year colleges and universities. Consult with your counselor or academic advisor to ensure your credits will transfer.

• Student must be officially admitted to the Limited/Restricted Enrollment Program prior to enrolling in core/major courses. Call the Admissions and Enrollment Center at 734-462-4426 for more information.

‡ These areas of study may be applicable toward Transfer associate degrees.

ACCOUNTING

Accounting Associate Degree

Schoolcraft program code # AAS.00005

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR		Fall Semester	
ACCT 201	Principles of Accounting 1	4	
CIS 120	Software Applications	3	
ENG 101	English Composition 1	3	
Math	Select 1	3–4	
MATH 101	Business Mathematics		
MATH 113	Intermediate Algebra for College Students		
		13–14	
		Winter Semester	
ACCT 202	Principles of Accounting 2	4	
CIS 180	Spreadsheet Applications—Current Software	3	
Elective	Select 1	3	
ACCT 260	Computerized Accounting Using Peachtree		
ACCT 263	Computerized Accounting Using QuickBooks		
ECON 201	Principles of Macroeconomics	4	
		14	
		Spring/Summer Session	
COMA 103	Fundamentals of Speech	3	
ENG 106	Business English	3	
		6	

SECOND YEAR Fall Semester

ACCT 221	Intermediate Accounting 1	4
ACCT 226	Cost Accounting	4
BUS 207	Business Law 1	3
Elective	Select 1	3–4
ACCT 262	Payroll Accounting	
BUS 101	Introduction to Business	
ECON 202	Principles of Microeconomics	

14–15

Winter Semester

ACCT 222	Intermediate Accounting 2	4
Elective	Select 4 tax credit hours below	4
ACCT 238	Federal Tax Accounting	4
OR		
ACCT 138	Income Tax Preparation	2
and		
ACCT 139	Michigan Taxes	2
Elective	Select 1	3–4
BUS 202	Business Ethics	
BUS 240	International Business	
PSYCH 153	Human Relations	
POLS 209	International Relations	
PHIL 247	Logic	
SOC 201	Principles of Sociology	
Science*	Select any General Education Science course	4

15–16

PROGRAM TOTAL 62–65 CREDITS

* Number of credits may vary depending on the General Education Science course selection.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.



Accounting Certificate

Schoolcraft program code # 1YC.00001

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

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

SAMPLE SCHEDULE OF COURSES**FIRST YEAR Fall Semester**

ACCT 201	Principles of Accounting 1	4
CIS 120	Software Applications	3
ENG 101	English Composition 1	3
MATH 101	Business Mathematics	3
		13

Winter Semester

ACCT 202	Principles of Accounting 2	4
Elective	Select 4 tax credit hours below	4
ACCT 238	Federal Tax Accounting	4
OR		
ACCT 138	Income Tax Preparation	2
and		
ACCT 139	Michigan Taxes	2
BUS 207	Business Law 1	3
Elective	Select 1	3
ACCT 260	Computerized Accounting Using Peachtree	
ACCT 263	Computerized Accounting Using QuickBooks	
		14

SECOND YEAR Fall Semester

COMA 103	Fundamentals of Speech	3
ACCT 262	Payroll Accounting	3
		6

PROGRAM TOTAL 33 CREDITS**Accounting for Small Business Skills Certificate**

Schoolcraft program code # CRT.00365

The Accounting Program is designed to familiarize students with the work and challenges facing accountants. This certificate program is designed for those: who seek entry-level bookkeeping positions in specialized areas; who seek a credential in order to receive pay raises, promotions, or benefits from employers; or who currently own or are starting a small business.

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

SAMPLE SCHEDULE OF COURSES**FIRST YEAR Fall Semester**

ACCT 201	Principles of Accounting 1	4
CIS 120	Software Applications	3
		7

Winter Semester

ACCT 263	Computerized Accounting Using QuickBooks	3
Elective	Select 4 tax credit hours below	4
ACCT 238	Federal Tax Accounting	4
OR		
ACCT 138	Income Tax Preparation	2
and		
ACCT 139	Michigan Taxes	2
		7

SECOND YEAR Fall Semester

Elective	Select 1	3
CIS 180	Spreadsheet Applications—Current Software	
ACCT 262	Payroll Accounting	
		3

PROGRAM TOTAL 17 CREDITS

AVIATION MANAGEMENT

Aviation Management Associate Degree

Schoolcraft program code # AAS.00261

The Aviation Management program provides an excellent broad exposure to key areas of aviation leading to an associate degree. The nature of the program recognizes that there are many individuals working in the field of aviation who may wish to broaden their aviation knowledge. This program has been designed to prepare and/or enhance a student's readiness for growth in an aviation career or in further aviation education. Course content includes the basics of flight and airspace/navigation, the evolution of aviation through to the latest advancements, meteorology, a broad perspective of corporate operations and aircraft maintenance businesses, aviation regulations/legislation and law, and the planning and operations of airports.

Three student profiles were considered in the development of this program:

- 1) The person who is already involved in a career in aviation who wishes to obtain a certificate or degree to enhance career growth potential, or simply wishes to obtain more knowledge in a specific area of aviation.
- 2) The student just entering the college environment who wishes to explore aviation as a career possibility while obtaining initial college course credit OR who definitely wants to obtain a certificate or associate degree leading to an aviation career.
- 3) The student who wishes to obtain initial credit at the community college level for economical or convenience reasons and intends to transfer to a four-year aviation degree program with either a flight or non-flight focus.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR Fall Semester

ENG 101	English Composition 1	3
CIS 120	Software Applications	3
AVM 101	Perspectives in Aviation	3
AVM 103	Aviation Meteorology.....	3
AVM 104	Aviation Legislation	3
		15

Winter Semester

English	Select 1	3
ENG 102	English Composition 2	
ENG 106	Business English	
AVM 102	Aviation History	3
AVM 201	Aviation Law	3
AVM 203	Airport Planning and Management	3
		12

Spring Session

Elective	Select from the list below	6
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SECOND YEAR Fall Semester

POLS 105	Survey of American Government	3
Social Science	Select 1	3–4
PSYCH 153	Human Relations	
PSYCH 201	Introductory Psychology	
HUM 106	Introduction to Art and Music	1
Elective	Select from the list below	6–7
		13–15

Winter Semester

PHYS 104	Introduction to Astronomy	4
COMA 103	Fundamentals of Speech.....	3
MATH 111	Applications—Utility of Math	4
Elective	Select from the list below	3–4
		14–15

PROGRAM TOTAL 60–63 CREDITS

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

ELECTIVES

AVM 105	Private Pilot Ground School.....	3
AVM 202	Aviation Maintenance Management	3
AVM 204	Corporate Aviation Management.....	3
BUS 101	Introduction to Business	3
BUS 207	Business Law 1	3
BUS 217	Business Management	3
BUS 220	Supervision	3
BUS 230	Human Resource Management.....	3
GEOG 133	World Regional Geography	4
GEOG 135	Earth Systems	4
PHIL 243	An Introduction to Philosophy	3
SOC 201	Principles of Sociology.....	3
SOC 210	Cultural Diversity	3

Aviation Management Skills Certificate

Schoolcraft program code # CRT.00302

This certificate has been designed to prepare and/or enhance career growth potential or simply provide more knowledge in a specific area of aviation. The certificate is appropriate for the student entering the college environment who wishes to explore aviation as a career possibility OR who definitely wants to obtain a certificate to enhance an aviation career.

The Aviation Management Skills Certificate provides excellent broad exposure to key areas of aviation. Course content includes basics of flight and airspace/navigation, the evolution of aviation through to the latest advancements, meteorology, a broad perspective of corporate operations and aircraft maintenance businesses, aviation regulations/legislation and law, and the planning and operations of airports.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR Fall Semester

AVM 101	Perspectives in Aviation	3
AVM 104	Aviation Legislation	3
Elective	Select from the list below	3
		9

Winter Semester

AVM 102	Aviation History	3
AVM 203	Airport Planning and Management	3
Elective	Select from the list below	3
		9

PROGRAM TOTAL 18 CREDITS

ELECTIVES

AVM 103	Aviation Meteorology.....	3
AVM 105	Private Pilot Ground School.....	3
AVM 201	Aviation Law	3
AVM 202	Aviation Maintenance Management.....	3
AVM 204	Corporate Aviation Management.....	3

BIOMEDICAL ENGINEERING TECHNOLOGY

Biomedical Engineering Technologist Associate Degree

Schoolcraft program code # AAS.00128

The Biomedical Engineering Technologist Program (BMET) 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. The program is divided into two components. The first year (three semesters) culminates in an Electronic Technology certificate. In order for candidates to be eligible to apply for the second year of the program, they **must** meet the following qualifications:

1. Have an overall GPA of 2.5.
2. Achieve a minimum GPA of 2.5 in each electronics course.
3. Achieve a minimum GPA of 3.0 in Biology 105.

Candidates who have met these conditions must be approved by the BMET Internship Coordinator before registering in BMET 116, BMET 204, BMET 254 or BMET 255. Due to the limited availability of work-sites, candidates who have met these conditions will be prioritized for admission into the BMET sequence based on the following elements: BMET application date, overall GPA, position in the sequence of program courses. Students must complete internships to be eligible to fulfill program requirements.

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

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

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES

FIRST YEAR	Fall Semester	
ELECT 131	Basic Measurement and Reporting Skills.....	3
ELECT 137	DC Circuits and Mathematical Modeling.....	5
ENG 101	English Composition 1	3
BIOL 105	Basic Human Anatomy and Physiology	4
		15
	Winter Semester	
ELECT 138	AC Circuits and Mathematical Modeling.....	5
ELECT 139	Diodes and Transistors	3
COMPS 126	Technical Programming.....	3
		11
	Spring/Summer Session	
ELECT 215	Operational Amplifiers and Linear Integrated Circuits.....	4
ELECT 219	Digital Logic Circuits.....	4
		8

ADMISSION TO THE BIOMEDICAL PROGRAM INTERNSHIP SEQUENCE

SECOND YEAR Fall Semester

BMET 116	Biomedical Instrumentation Terminology and Safety 1	3
Math	Select 1	3–4
MATH 101	Business Mathematics	
MATH 113	Intermediate Algebra for College Students	
Social Science	Select 1	3
POLS 209	International Relations	
PSYCH 153	Human Relations	
SOC 210	Cultural Diversity	
Elective	Select from the list below.....	3
English	Select 1	3
ENG 102	English Composition 2	
ENG 116	Technical Writing	

15–16

Winter Semester

BMET 204	Biomedical Instrumentation Terminology and Safety 2	4
BMET 254	Biomedical Equipment Internship 1	3
Elective	Select from the list below.....	6
HUM 106	Introduction to Art and Music	1

14

Spring/Summer Session

BMET 255	Biomedical Equipment Internship 2.....	3
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PROGRAM TOTAL 66–67 CREDITS

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

ELECTIVES

BMET 125	Laser Safety Concepts	3
CIS 171	Introduction to Networking	3
CIS 235	Managing and Troubleshooting PCs	3
COMPS 124	Introduction to Personal Computers and Software.....	3
ELECT 144	Introduction to Microcontrollers	3
ELECT 145	Fluid Power	4
ELECT 218	AC/DC Motors	3
ELECT 228	Electronic Troubleshooting	3
ELECT 251	Programmable Logic and Industrial Controls	4
MET 102	Introduction to Materials Science.....	3



Biomedical Applications Post-Associate Certificate

Schoolcraft program code # PAC.00178

This post-associate certificate in Biomedical Applications is designed to provide working professionals who have experience and/or training in Biomedical Engineering opportunities to study new technologies and innovations.

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

Prior to admission to this program, students must have completed a minimum of an accredited Associate Degree in Biomedical Engineering Technology. All courses are not offered each semester. Students should work with the Counseling Center to set up a schedule that will work for them. The post-associate certificate is awarded upon successful completion of 15 credit hours (exact number may vary slightly due to credit value or content of course).

PROGRAM COURSES

A student is required to choose the two courses listed below:

CIS 171	Introduction to Networking	3
CIS 235	Managing and Troubleshooting PCs	3

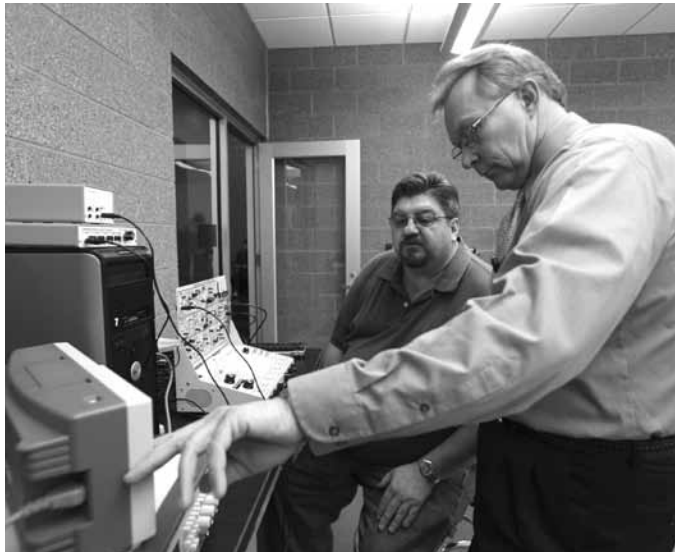
A student may choose from any of the courses listed below:

BUS 220	Supervision	3
CIS 125	Principles of Information Security	3
CIS 172	Network Security Fundamentals	3
CIS 173	Wireless Local Area Networks	3
CIS 178	Technical Microsoft Windows	3
CIS 250	Systems Development and Design	4
CIS 251	IT Project Management	3
CIS 271	Local Area Networks	3
CIS 273	TCP/IP and Network Architectures	3
ELECT 144	Introduction to Microcontrollers	3
QM 107	Quality Planning and Team Building	3

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 # AAS.00041

Students will develop the skills necessary to function as entry-level employees in radio, television, cable television or industrial television settings. The sixty-hour program is articulated with the Specs Howard School (SHS) of Broadcast Arts, Inc. located in Southfield, Michigan. Fifteen credit hours are awarded for completion of the SHS Certificate Program and the remaining credit hours are taken at Schoolcraft.

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

TYPICAL PROGRAM SCHEDULE

Program Courses (Offered at Specs Howard School)

Vocal Technique	1.5
Broadcast Concept	1.5
Broadcast Writing	1.5
Interpersonal Communication Development	0.5
Workshop	1.5
Technical Competency	0.5
Studio Class	2.0
WLDN Air Shift	1.0
WLDN News Shift	2.0
Television Production I, II, III, IV, V	3.0
	15

SCHOOLCRAFT COLLEGE College Requirements

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

FIRST YEAR	Fall Semester	
Math	Select 1	3–4
MATH 101	Business Mathematics	
MATH 113	Intermediate Algebra for College Students	
BUS 101	Introduction to Business	3
COMA 103	Fundamentals of Speech	3
ENG 101	English Composition 1	3
THEA 208	Acting 1	3
		15–16

Winter Semester

CIS 105	Computer Orientation	1
COMA 201	Discussion	3
GEOG 135	Earth Systems	4
PSYCH 201	Introductory Psychology	4
THEA 241*	Oral Interpretation of Literature	3
		15

SECOND YEAR Fall Semester

ENG 107	Introduction to Journalism	3
GEOG 133	Physical Geology	4
POLS 105	Survey of American Government	3
SOC 201	Principles of Sociology	3
Elective**		2–3
		15–16

PROGRAM TOTAL 60–62 CREDITS

* This class is offered on a rotational basis.

Contact Liberal Arts office for current offerings.

** Any 100- or 200-level course not previously taken.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

BUSINESS

Business—General Associate Degree

Schoolcraft program code # AAS.00008

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR		Fall Semester	
BUS 101	Introduction to Business.....	3	
MATH 101	Business Mathematics.....	3	
BUS 122	Advertising.....	3	
English	Select 1.....	3	
ENG 100	Communication Skills		
ENG 101	English Composition 1		
Humanities*	Select any General Education Humanities course.....	3	
COMA 103	Fundamentals of Speech (recommended)		
			15
		Winter Semester	
BUS 120	Strategic Selling.....	3	
Elective	Select 1.....	4	
ACCT 103	Introduction to Accounting		
ACCT 201	Principles of Accounting 1		
English	Select 1.....	3	
ENG 102	English Composition 2		
ENG 106	Business English		
PSYCH 153	Human Relations.....	3	
Science*	Select any General Education Science course.....	4	
			17
SECOND YEAR		Fall Semester	
BUS 217	Business Management.....	3	
BUS 220	Supervision.....	3	
ECON 201	Principles of Macroeconomics.....	4	
BUS 202	Business Ethics.....	3	
BUS 240	International Business.....	3	
			16
		Winter Semester	
BUS 204	Personal Finance.....	3	
BUS 207	Business Law 1.....	3	
BUS 215	Business on the Web.....	3	
BUS 226	Principles of Marketing.....	3	
Electives	Select from the list below.....	2–4	
			14–16

PROGRAM TOTAL 62–64 CREDITS

* Number of credits may vary depending on the General Education course selection.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

ELECTIVES

ACCT 138	Income Tax Preparation.....	2
BUS 103	Organizing a Small Business.....	3
BUS 104	Operating a Small Business.....	3
BUS 123	Consumer Behavior.....	3
BUS 161	Retail Principles and Practices.....	3
BUS 205	Personal Investing.....	3
BUS 206**	Foundation of Business Information Technology.....	3
BUS 208	Business Law 2.....	3
BUS 221**	Statistical Inference for Management Decisions.....	3
BUS 230	Human Resource Management.....	3
CIS 120	Software Applications.....	3
CIS 215	Advanced Software Applications.....	3
ENG 116	Technical Writing.....	3
MATH 122	Elementary Statistics.....	4

** These courses are designed for students pursuing the Walsh College Honors Fast Track Program.

Business—Basic Certificate

Schoolcraft program code # 1YC.00002

The Basic Business Program introduces students to accounting, economics and the basics of business. Completion of the program positions the student for pursuit of an associates degree or for transition into the business community.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR		Fall Semester	
BUS 101	Introduction to Business.....	3	
MATH 101	Business Mathematics.....	3	
English	Select 1.....	3	
ENG 100	Communication Skills		
ENG 101	English Composition 1		
COMA 103	Fundamentals of Speech.....	3	
BUS 220	Supervision.....	3	
			15
		Winter Semester	
English	Select 1.....	3	
ENG 102	English Composition 2		
ENG 106	Business English		
Accounting	Select 1.....	4	
ACCT 103	Introduction to Accounting		
ACCT 201	Principles of Accounting 1		
ECON 201	Principles of Macroeconomics.....	4	
PSYCH 153	Human Relations.....	3	
			14
		Spring Session	
BUS 202	Business Ethics.....	3	

PROGRAM TOTAL 32 CREDITS

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 knowledge of business.

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	
Fall Semester	
BUS 101	Introduction to Business 3
BUS 122	Advertising 3
BUS 161	Retail Principles and Practices 3
Elective	Select 1 4
ACCT 103	Introduction to Accounting
ACCT 201	Principles of Accounting 1
English	Select 1 3
ENG 100	Communication Skills
ENG 101	English Composition 1
16	
Winter Semester	
MATH 101	Business Mathematics 3
BUS 120	Strategic Selling 3
English	Select 1 3
ENG 102	English Composition 2
ENG 106	Business English
PSYCH 153	Human Relations 3
Science*	Select any General Education Science course 4
16	

SECOND YEAR Fall Semester

BUS 217	Business Management 3
BUS 220	Supervision 3
HUM 106	Introduction to Art and Music 1
ECON 201	Principles of Macroeconomics 4
BUS 123	Consumer Behavior 3
14	

Winter Semester

BUS 226	Principles of Marketing 3
BUS 202	Business Ethics 3
BUS 204	Personal Finance 3
BUS 215	Business on the Web 3
Electives	Select from the list below 4-6
16-18	

PROGRAM TOTAL 62-64 CREDITS

* Number of credits may vary depending on the General Education course selection.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

ELECTIVES

BUS 103	Organizing a Small Business 3
BUS 104	Operating a Small Business 3
BUS 205	Personal Investing 3
BUS 206**	Foundation of Business Information Technology 3
BUS 207	Business Law 1 3
BUS 208	Business Law 2 3
BUS 221**	Statistical Inference for Management Decisions 3
BUS 230	Human Resource Management 3
BUS 240	International Business 3
CIS 120	Software Applications 3
CIS 180	Spreadsheet Applications—Current Software 3
CIS 215	Advanced Software Applications 3
COMA 103	Fundamentals of Speech 3
ENG 116	Technical Writing 3
MATH 122	Elementary Statistics 4
OIS 100	Keyboarding 1 2

** These courses are designed for students pursuing the Walsh College Honors Fast Track Program.



Small Business for Entrepreneurs Associate Degree

Schoolcraft program code # AAS.00011

The Small Business for Entrepreneurs 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 for Entrepreneurs curriculum is designed for those who already own and operate a small business, who are contemplating starting their own small business, or who seek employment opportunities as managers in small business.

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

SAMPLE SCHEDULE OF COURSES**FIRST YEAR Fall Semester**

BUS 101	Introduction to Business.....	3
BUS 103	Organizing a Small Business.....	3
BUS 122	Advertising.....	3
MATH 101	Business Mathematics.....	3
English	Select 1.....	3
ENG 100	Communication Skills	
ENG 101	English Composition 1	
		15

Winter Semester

BUS 104	Operating a Small Business.....	3
Elective	Select 1.....	4
ACCT 103	Introduction to Accounting	
ACCT 201	Principles of Accounting 1	
English	Select 1.....	3
ENG 102	English Composition 2	
ENG 106	Business English	
Science*	Select any General Education Science course.....	4
BUS 120	Strategic Selling.....	3
		17

SECOND YEAR Fall Semester

BUS 204	Personal Finance.....	3
BUS 220	Supervision.....	3
BUS 202	Business Ethics.....	3
HUM 106	Introduction to Art and Music.....	1
BUS 215	Business on the Web.....	3
Elective	Select from the list below.....	3
		16

Winter Semester

BUS 207	Business Law 1.....	3
BUS 226	Principles of Marketing.....	3
BUS 230	Human Resource Management.....	3
PSYCH 153	Human Relations.....	3
Elective	Select from the list below.....	2–4
		14–16

PROGRAM TOTAL 62–64 CREDITS

* Number of credits may vary depending on the General Education Science course selection.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

ELECTIVES

ACCT 138	Income Tax Preparation.....	3
ACCT 263	Computerized Accounting Using QuickBooks.....	3
BUS 123	Consumer Behavior.....	3
BUS 161	Retail Principles and Practices.....	3
BUS 205	Personal Investing.....	3
BUS 208	Business Law 2.....	3
BUS 217	Business Management.....	3
BUS 240	International Business.....	3
CIS 120	Software Applications.....	3
CIS 215	Advanced Software Applications.....	3
ECON 201	Principles of Macroeconomics.....	4
ENG 116	Technical Writing.....	3

Business—Small Business for Entrepreneurs Certificate

Schoolcraft program code # 1YC.00213

The Small Business for Entrepreneurs certificate is for individuals considering starting a small business, those who already own a business or students who seek employment opportunities managing a small business. The coursework prepares learners for the unique challenges small business owners and entrepreneurs routinely deal with in today's highly competitive business world.

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

SAMPLE SCHEDULE OF COURSES**FIRST YEAR Fall Semester**

BUS 103	Organizing a Small Business.....	3
English	Select 1.....	3
ENG 100	Communication Skills	
ENG 101	English Composition 1	
BUS 220	Supervision.....	3
Elective	Select 1.....	4
ACCT 103	Introduction to Accounting	
ACCT 201	Principles of Accounting 1	
		13

Winter Semester

BUS 104	Operating a Small Business.....	3
BUS 122	Advertising.....	3
English	Select 1.....	3
ENG 102	English Composition 2	
ENG 106	Business English	
PSYCH 153	Human Relations.....	3
Elective	Select from the list below.....	2–3
		14–15

Spring Session

BUS 202	Business Ethics.....	3
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PROGRAM TOTAL 30–31 CREDITS**ELECTIVES**

Select one course from the list below to fulfill the elective requirement:

ACCT 138	Income Tax Preparation.....	2
ACCT 263	Computerized Accounting Using QuickBooks.....	3
BUS 120	Strategic Selling.....	3
BUS 123	Consumer Behavior.....	3
BUS 215	Business on the Web.....	3

BUSINESS INFORMATION TECHNOLOGY

Business Information Technology Associate Degree

Schoolcraft program code # AAS.00277

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

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR Fall Semester

ENG 101	English Composition 1	3
BUS 101	Introduction to Business	3
CIS 125	Principles of Information Security	3
CIS 120	Software Applications	3
Elective	Select from the list below	3
		15

Winter Semester

English	Select 1	3
ENG 102	English Composition 2	
ENG 106	Business English	
MATH 113	Intermediate Algebra for College Students	4
BUS 217	Business Management	3
CIS 129	Introduction to Programming Logic	3
CIS Elective	Select any CIS course from the list below	2-3
		15-16

Spring/Summer Session

Social Science	Select 1	3-4
POLS 105	Survey of American Government	
PSYCH 153	Human Relations	
PYSCH 201	General Psychology	
COMA 103	Fundamentals of Speech	3
		6-7

SECOND YEAR Fall Semester

BUS 220	Supervision	3
CIS 250	Systems Development and Design	4
CIS Elective	Select any CIS course from the list below	2-3
Science*	Select any General Education Science course	4
		13-14

Winter Semester

CIS 251	IT Project Management	3
ACCT 201	Principles of Accounting 1	4
ECON 201	Principles of Macroeconomics	4
Elective	Select from the list below	3
		14

PROGRAM TOTAL 63-66 CREDITS

* Number of credits may vary depending on the General Education Science course selection.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

ELECTIVES

BUS 207	Business Law 1	3
BUS 208	Business Law 2	3
BUS 215	Business on the Web	3
BUS 221**	Statistical Inference for Management Decisions	3
BUS 226	Principles of Marketing	3
CIS 170	Microsoft Windows	3
CIS 171	Introduction to Networking	3
CIS 176	Visual Basic.NET	3
CIS 185	Introduction to HTML	3
CIS 211	Introduction to C++	2
CIS 221	Advanced C++	2
CIS 223	Introduction to C#	3
CIS 225	Database Management Systems	3
CIS 235	Managing and Troubleshooting PCs	3
CIS 265	Networking 1	3
CIS 276	Networking 2	3
CIS 290	Object-Oriented Programming With Java	3

** This course is designed for students pursuing the Walsh College Honors Fast Track Program.



Business Information Technology Certificate

Schoolcraft program code # 1YC.00242

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

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

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

SAMPLE SCHEDULE OF COURSES**FIRST YEAR Fall Semester**

BUS 101	Introduction to Business.....	3
CIS 120	Software Applications	3
CIS 129	Introduction to Programming Logic.....	3
CIS 125	Principles of Information Security	3
CIS Elective	Select any CIS course listed below	2-3
		14-15

Winter Semester

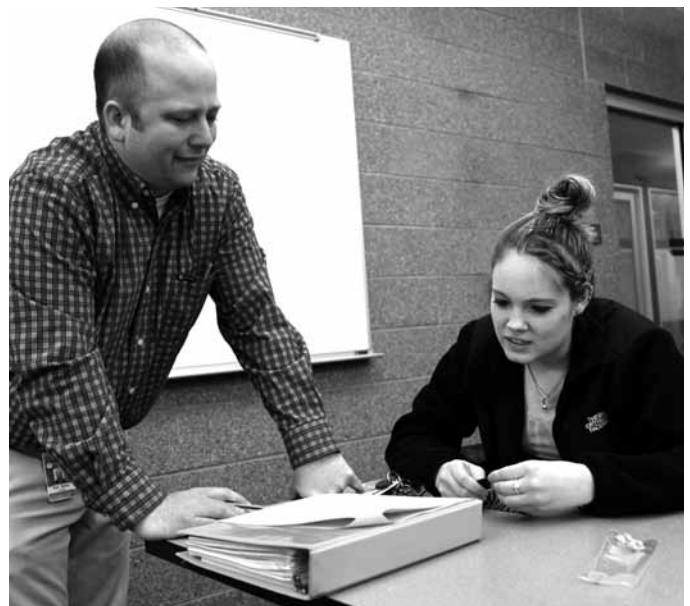
ACCT 201	Principles of Accounting 1	4
CIS 251	IT Project Management	3
BUS 220	Supervision	3
CIS 250	Systems Development and Design	4
		14

Spring Session

BUS 217	Business Management.....	3
Elective	Select from the list below.....	2-3
		5-6

PROGRAM TOTAL 33-35 CREDITS**Electives**

BUS 207	Business Law 1.....	3
BUS 208	Business Law 2.....	3
BUS 215	Business on the Web.....	3
BUS 226	Principles of Marketing	3
CIS 170	Microsoft Windows	3
CIS 171	Introduction to Networking	3
CIS 176	Visual Basic.NET	3
CIS 185	Introduction to HTML.....	3
CIS 211	Introduction to C++	2
CIS 221	Advanced C++.....	2
CIS 223	Introduction to C#.....	3
CIS 225	Database Management Systems	3
CIS 235	Managing and Troubleshooting PCs	3
CIS 265	Networking 1	3
CIS 276	Networking 2	3
CIS 290	Object-Oriented Programming With Java	3



CHILD AND FAMILY SERVICES

Child Care and Development Associate Degree

Schoolcraft program code # AAS.00020

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

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR		Fall Semester	
ENG 100	Communication Skills	3	
CCD 116	Child Development	3	
CCD 100	Introduction to Child Welfare Services	3	
CCD 102	Foundations of Early Childhood Education	3	
Social Science	Select 1	3	
PSYCH 153	Human Relations		
POLS 105	Survey of American Government		
			15
		Winter Semester	
ENG 106	Business English	3	
CCD 118	Infant and Toddler Care	3	
CCD 101	Preschool Child Care	3	
CCD 115	School-Age Child Care	3	
CCD 150	Child Care Practicum 1	3	
COLLS 111	Electronic Portfolio	1	
			16
SECOND YEAR		Fall Semester	
Math	Select any General Education Mathematics course ...	3–4	
CCD 126	Creative Activities	3	
CCD 200	Child Care Practicum 2	3	
Science	Select 1	4–5	
BIOL 101	General Biology		
CHEM 111	General Chemistry 1		
GEOG 105	Earth Science for Elementary Teachers		
GEOL 133	Physical Geology		
PHYS 104	Introduction to Astronomy		
PHYS 123	Applied Physics		
HUM 106	Introduction to Art and Music	1	
			14–16
		Winter Semester	
CCD 211	Children and Youth in Groups	3	
CCD 214	Operation and Maintenance of a Child Care Facility ...	3	
CCD 216	The Child with Special Needs	3	
CCD 121	The Adolescent	3	
CCD 221	Early Literacy and Numerical Thinking	3	
CCD 224	Emerging Educator	1	
			16

PROGRAM TOTAL 61–63 CREDITS

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

Child Care and Development Certificate

Schoolcraft program code # 1YC.00031

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR		Fall Semester	
CCD 116	Child Development	3	
CCD 126	Creative Activities	3	
CCD 214	Operation and Maintenance of a Child Care Facility ...	3	
CCD 216	The Child With Special Needs	3	
CCD 100	Introduction to Child Welfare Services	3	
			15
		Winter Semester	
CCD 101	Preschool Child Care	3	
CCD 102	Foundations of Early Childhood Education	3	
CCD 118	Infant and Toddler Care	3	
CCD 150	Child Care Practicum 1	3	
			12
		Spring Session	
CCD 200	Child Care Practicum 2	3	
CCD 211	Children and Youth in Groups	3	
			6

PROGRAM TOTAL 33 CREDITS

The Children's Center at Schoolcraft College is accredited by the National Association for the Education of Young Children (NAEYC—the foremost authority in the care of children, birth through age eight). The accreditation we earned is held by only 3 percent of centers in Michigan and 7 percent of centers in the United States.

For more information about accreditation please contact:

National Association for the Education of Young Children (NAEYC)
1313 L. Street N.W., Suite 500
Washington, DC 20005-4101
1-800-424-2460

www.naeyc.org/accreditation



Child Care—Special Needs Paraprofessional Associate Degree

Schoolcraft program code # AAS.00021

Working with disabled children and adults requires sensitivity to individual needs and an ability to help identify and develop the strengths of each individual. This curriculum contains theoretical and practical experience designed to prepare students to work in public school special education classrooms, inclusive classrooms and resource rooms, institutional settings, sheltered workshops, job coaching programs, group homes, or supported-living programs. Students learn to work effectively as members of professional special needs teams. Students who successfully complete the program will meet the requirements of the No Child Left Behind legislation.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall Semester	
ENG 100	Communication Skills	3
CCD 116	Child Development.....	3
CCD 100	Introduction to Child Welfare Services	3
Social Science	Select 1	3–4
PSYCH 153	Human Relations	
PSYCH 201	Introductory Psychology	
CCD 216	The Child with Special Needs	3
		15–16
	Winter Semester	
ENG 106	Business English.....	3
CCD Elective	Select 1	3
CCD 101	Preschool Child Care	
CCD 115	School-Age Child Care	
CCD 105	Introduction to Developmental Disabilities.....	3
SOC 201	Principles of Sociology.....	3
CCD 150	Child Care Practicum 1	3
COLLS 111	Electronic Portfolio	1
		16

SECOND YEAR	Fall Semester	
BIOL 101	General Biology	4
Math	Select any General Education Mathematics course...3–4	
CCD 215	Methods and Curricula for Persons with Developmental Disabilities	3
CCD 211	Children and Youth in Groups.....	3
HUM 106	Introduction to Art and Music	1
		14–15

	Winter Semester	
CCD 113	Special Educational Programs and Supported Living.....	3
CCD 126	Creative Activities	3
CCD 130	Learning Disabilities	3
CCD 218	Practicum 2—Special Education Focus	3
CCD 140	Emotional Impairment.....	3
CCD 224	Emerging Educator.....	1
		16

PROGRAM TOTAL 61–63 CREDITS

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

Child Care—Special Needs Paraprofessional Certificate

Schoolcraft program code # 1YC.00032

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall Semester	
CCD 116	Child Development.....	3
CCD 216	The Child with Special Needs	3
CCD 215	Methods and Curricula for Persons with Developmental Disabilities	3
CCD 113	Special Educational Programs and Supported Living	3
		12
	Winter Semester	
CCD 105	Introduction to Developmental Disabilities.....	3
CCD 150	Child Care Practicum 1	3
CCD 140	Emotional Impairment.....	3
CCD 130	Learning Disabilities	3
		12
	Spring Session	
CCD 218	Practicum 2—Special Education Focus	3
CCD 211	Children and Youth in Groups	3
		6

PROGRAM TOTAL 30 CREDITS



Child Development Associate (CDA) Skills Certificate

Schoolcraft program code # CRT.00315

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 six courses in the Child Care and Development curriculum that address the Competency Goals in 13 Functional Areas identified by the CDA Professional Preparation Program. Candidates must also document 480 hours of experience working with children within the past five years, prepare a professional resource file, and be formally observed working with children.*

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR Fall Semester

CCD 102	Foundations of Early Childhood Education	3
CCD 116	Child Development.....	3
CCD 221	Early Literacy and Numerical Thinking.....	3
		9

Winter Semester

CCD 118	Infant and Toddler Care.....	3
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**OR

CCD 101	Preschool Child Care.....	3
CCD 150	Child Care Practicum 1	3
CCD 126	Creative Activities	3
		9

Spring Session

CCD 155	CDA Assessment Preparation.....	1
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PROGRAM TOTAL 19 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.

** Choose course depending upon the type of CDA Credentials the student is pursuing. Check with the Child Care Department for more information.



COMPUTER AIDED DESIGN (CAD)**CAD-Mechanical Associate Degree**

Schoolcraft program code # AAS.00170

Technology improvements have moved the world of design from the drafting arena to the data management and design world. The designer now must produce multiple design proposals through a process which includes modeling, simulation, performance analysis and free form fabrication. Product Life Cycle Management concepts are ingrained into this program addressing the management of all data related to the design, production and support of manufactured goods.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall Semester	
CAD 103	Engineering Graphics	3
ENGR 100	Introduction to Engineering and Technology	3
MET 102	Introduction to Materials Science.....	3
MATH 113**	Intermediate Algebra for College Students	4
HUM 106*	Introduction to Art and Music	1
		14
	Winter Semester	
MET 114	Engineering Materials	3
CAD 106	Advanced Drawing Views and Descriptive Geometry.....	4
MFG 105	Manufacturing Processes	4
Elective	Select 1	4
CAD 211	CATIA—Level 1	
CAD 221	SolidWorks—Level 1	
		15
	Spring/Summer Session	
MATH 119	Trigonometry	3
ENG 100*	Communication Skills	3
		6

SECOND YEAR Fall Semester

DSGN 180	Machine Elements and Design	4
ENG 106*	Business English.....	3
MFG 102	Basic Machining Processes	3
CAD 107	Detailing	4
		14

Winter Semester

DSGN 250	Tool, Die, and Fixture Design	4
DSGN 280	Capstone Project.....	4
PHYS 123	Applied Physics	5
PSYCH 153*	Human Relations	3
		16

PROGRAM TOTAL 65 CREDITS

* Other courses meeting the College Requirements may be substituted.

** MATH 113 may be waived if student has successfully completed high school Algebra II or based on student's placement test score.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

COMPUTER AIDED DRAFTING (CAD)**CAD-Drafting-Technical Certificate**

Schoolcraft program code # 1YC.00119

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall Semester	
CAD 103	Engineering Graphics	3
MET 102	Introduction to Materials Science.....	3
MFG 102	Basic Machining Processes	3
MATH 113*	Intermediate Algebra for College Students	4
		13
	Winter Semester	
CAD 106	Advanced Drawing Views and Descriptive Geometry.....	4
MATH 119	Trigonometry	3
MFG 105	Manufacturing Processes.....	4
Elective	Select 1	4
CAD 211	CATIA—Level 1	
CAD 221	SolidWorks—Level 1	
		15
	PROGRAM TOTAL 28 CREDITS	

* MATH 113 may be waived if student has successfully completed high school Algebra II or based on student's placement test score.



COMPUTER GRAPHICS TECHNOLOGY

The Computer Graphics Technology Programs prepare students for a career in the fields of graphic design and computer graphics. Students learn how to use professional level software, hardware and peripherals, and to apply the principles of design, typography, and color theory to the creation of effective print- and electronic-based visual communication. It is highly recommended that students meet with faculty for advice in selecting their electives.

All courses are not offered each semester. Students should work with the Counseling Center to set up a schedule that will work for them. Students who satisfactorily complete all College Requirements qualify for an Associate in Applied Science Degree. Students wishing to pursue a Post-Associate Certificate must have a Computer Graphics Technology Associate Degree or equivalent professional experience.

Computer Graphics Technology— Digital Art Associate Degree

Schoolcraft program code # AAS.00028

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall Semester	
CGT 109	Design Concepts and Technology	3
ART 105	Basic Drawing	3
CGT 125	Digital Imaging 1—Photoshop.....	3
ENG 101	English Composition 1	3
MATH 113	Intermediate Algebra for College Students	4
		16
	Winter Semester	
CGT 123	Illustration—Illustrator.....	3
CGT 127	Publishing—InDesign	3
Science	Select 1	4
BIOL 101	General Biology	
CHEM 111	General Chemistry 1	
PHYS 104	Introduction to Astronomy	
ART 125	Life Drawing 1	3
		13
	SECOND YEAR Fall Semester	
CGT 226	Digital Imaging 2—Photoshop.....	3
ENG 102	English Composition 2	3
ART 205	Life Drawing 2	3
Art	Select 1	4
ART 115	Art History 1	
ART 116	Art History 2	
COMA 103	Fundamentals of Speech.....	3
		16
	Winter Semester	
ART 243	Sculpture 1.....	3
Social Science	Select 1	3
POLS 105	Survey of American Government	
PSYCH 153	Human Relations	
CGT 257	Portfolio Preparation	3
Capstone	Select 1	3
CGT 250	Practical Application	
CGT 270*	Internship	
CGT 298*	Honors Studies	
Elective	Any ART or CGT course not previously taken	3
		15

PROGRAM TOTAL 60 CREDITS

* These classes are offered as independent learning. Contact CGT faculty.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

Computer Graphics Technology— 3D and Video Graphics Associate Degree

Schoolcraft program code # AAS.00028

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall Semester	
CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator.....	3
CGT 125	Digital Imaging 1—Photoshop.....	3
CGT 166	Photography.....	3
ENG 101	English Composition 1	3
		15
	Winter Semester	
CGT 168	Storyboarding	3
CGT 244	History of Animation.....	3
CGT 247	3D Animation—Introduction.....	3
ENG 102	English Composition 2	3
MATH 113	Intermediate Algebra for College Students	4
		16
	Spring Session	
COMA 103	Fundamentals of Speech.....	3
		3
	SECOND YEAR Fall Semester	
CGT 208	Digital Video Production.....	3
CGT 215	Motion Graphics 1—After Effects	3
Track Option	Select 1	3
3D Track:	CGT 254 3D Animation—Advanced Models and Textures	
Video Track:	CGT 226 Digital Imaging 2—Photoshop	
Science	Select 1	4
BIOL 101	General Biology	
CHEM 111	General Chemistry 1	
PHYS 104	Introduction to Astronomy	
BUS 122	Advertising	3
		16
	Winter Semester	
CGT 246	Motion Graphics 2—After Effects	3
Track Option	Select 1	3
3D Track:	CGT 252 3D Animation—Animating	
Video Track:	CGT 210 Visual Effects Production	
Capstone	Select 1	3
CGT 250	Practical Application	
CGT 270*	Internship	
CGT 298*	Honors Studies	
Social Science	Select 1	3
POLS 105	Survey of American Government	
PSYCH 153	Human Relations	
CGT 256	Portfolio—3D Reel Development.....	3
		15

PROGRAM TOTAL 65 CREDITS

* These classes are offered as independent learning. Contact CGT faculty.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

Computer Graphics Technology— Graphic Design Associate Degree

Schoolcraft program code # AAS.00028

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall semester	
CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
ENG 101	English Composition 1	3
MATH 113	Intermediate Algebra for College Students	4
		16

	Winter Semester	
CGT 127	Publishing—InDesign	3
CGT 135	Web Graphics	3
CGT 162	XHTML—CSS Standards	3
ENG 102	English Composition 2	3
COMA 103	Fundamentals of Speech	3
		15

SECOND YEAR	Fall Semester	
CGT 161	History of Graphic Design	3
Track Option	Select 1	3
	Publishing Track: CGT 149 Typography	
	Web Track: CGT 211 Flash	
Track Option	Select 1	2–3
	Publishing Track: CGT 166 Photography	
	CGT 157 Prepress	
	Web Track: CGT 236 Web Design	
CGT 226	Digital Imaging 2—Photoshop	3
BUS 122	Advertising	3
		14–15

	Winter Semester	
CGT 257	Portfolio Preparation	3
Track Option	Select 1	3
	Publishing Track: CGT 231 Electronic Publishing	
	Web Track: CGT 237 Dynamic Web Design With ColdFusion	
Science	Select 1	4
BIOL 101	General Biology	
CHEM 111	General Chemistry 1	
PHYS 104	Introduction to Astronomy	
Social Science	Select 1	3
POLS 105	Survey of American Government	
PSYCH 153	Human Relations	
Capstone	Select 1	3
CGT 250	Practical Application	
CGT 270*	Internship	
CGT 298*	Honors Studies	
		16

PROGRAM TOTAL 61–62 CREDITS

* These classes are offered as independent learning. Contact CGT faculty.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

Computer Graphics Technology—Interactive Media and Game Design Associate Degree

Schoolcraft program code # AAS.00028

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall Semester	
CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
CGT 166	Photography	3
ENG 101	English Composition 1	3
		15

	Winter Semester	
CGT 149	Typography	3
CGT 168	Storyboarding	3
CGT 244	History of Animation	3
Track Option	Select 1	3
	Director Track: CGT 141 Introduction to Interactive Media and Game Design	
	Flash Track: CGT 211 Flash	
ENG 102	English Composition 2	3
		15

SECOND YEAR	Fall Semester	
CGT 154	Sound Editing for Graphic Artists	2
Track Option	Select 1	3
	Director Track: CGT 206 Scripting for Interactive Media and Game Design	
	Flash Track: CGT 212 Flash Action Scripting	
COMA 103	Fundamentals of Speech	3
Science	Select 1	4
BIOL 101	General Biology	
CHEM 111	General Chemistry 1	
PHYS 104	Introduction to Astronomy	
BUS 122	Advertising	3
		15

	Winter Semester	
CGT 242	Advanced Interactive Media and Game Design	3
CGT 256	Portfolio—3D Reel Development	3
Capstone	Select 1	3
	CGT 250 Practical Application	
	CGT 270* Internship	
	CGT 298* Honors Studies	
Social Science	Select 1	3
	PSYCH 153 Human Relations	
	POLS 105 Survey of American Government	
MATH 113	Intermediate Algebra for College Students	4
		16

PROGRAM TOTAL 61 CREDITS

* These classes are offered as independent learning. Contact CGT faculty.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

Computer Graphics Technology— 3D Animation Certificate

Schoolcraft program code # 1YC.00136

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall Semester	
CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
CGT 166	Photography	3
		12
	Winter Semester	
CGT 168	Storyboarding	3
CGT 244	History of Animation	3
CGT 247	3D Animation—Introduction	3
CGT 215	Motion Graphics 1—After Effects	3
		12
	Spring Session	
CGT 254	3D Animation—Advanced Models and Textures	3

SECOND YEAR Fall Semester

CGT 246	Motion Graphics 2—After Effects	3
CGT 252	3D Animation—Animating	3
		6

PROGRAM TOTAL 33 CREDITS

Computer Graphics Technology— Digital Art Certificate

Schoolcraft program code # 1YC.00136

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall Semester	
CGT 109	Design Concepts and Technology	3
ART 105	Basic Drawing	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
		12
	Winter Semester	
CGT 127	Publishing—InDesign	3
ART 115	Art History 1	4
or		
ART 116	Art History 2	4
CGT 226	Digital Imaging 2—Photoshop	3
ART 125	Life Drawing 1	3
ART 243	Sculpture 1	3
		16

PROGRAM TOTAL 28 CREDITS



Computer Graphics Technology— Publishing Certificate

Schoolcraft program code # 1YC.00136

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall Semester	
CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
CGT 127	Publishing—InDesign	3
CGT 149	Typography	3
		15
	Winter Semester	
CGT 161	History of Graphic Design	3
CGT 135	Web Graphics	3
CGT 166	Photography	3
or		
CGT 157	Prepress	2
CGT 226	Digital Imaging 2—Photoshop	3
CGT 231	Electronic Publishing	3
		14–15

PROGRAM TOTAL 29–30 CREDITS

Computer Graphics Technology— Video Graphics Certificate

Schoolcraft program code # 1YC.00136

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall Semester	
CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
CGT 166	Photography	3
		12
	Winter Semester	
CGT 168	Storyboarding	3
CGT 208	Digital Video Production	3
CGT 215	Motion Graphics 1—After Effects	3
CGT 247	3D Animation—Introduction	3
		12

SECOND YEAR Fall Semester

CGT 210	Visual Effects Production	3
CGT 246	Motion Graphics 2—After Effects	3
		6

PROGRAM TOTALS 30 CREDITS



Computer Graphics Technology— Web Design Certificate

Schoolcraft program code # 1YC.00136

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall Semester	
CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
CGT 127	Publishing—InDesign	3
		12
	Winter Semester	
CGT 135	Web Graphics	3
CGT 161	History of Graphic Design	3
CGT 162	XHTML—CSS Standards	3
CGT 211	Flash	3
		12
SECOND YEAR	Fall Semester	
CGT 236	Web Design	3
	Winter Semester	
CGT 237	Dynamic Web Design With ColdFusion	3
		PROGRAM TOTAL 30 CREDITS

Computer Graphics Technology— Interactive Media and Game Design Certificate

Schoolcraft program code # 1YC.00136

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall Semester	
CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
Track Option	Select 1	3
Director Track:	CGT 141 Introduction to Interactive Media and Game Design	
Flash Track:	CGT 211 Flash	
CGT 166	Photography	3
		15
	Winter Semester	
CGT 149	Typography	3
CGT 168	Storyboarding	3
Track Option	Select 1	3
Director Track:	CGT 206 Scripting for Interactive Media and Game Design	
Flash Track:	CGT 212 Flash Action Scripting	
CGT 154	Sound Editing for Graphic Artists	2
		11
	Spring Session	
CGT 242	Advanced Interactive Media and Game Design	3
		PROGRAM TOTAL 29 CREDITS

Computer Graphics Technology— Foundation Skills Certificate

Schoolcraft program code # CRT.00364

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall Semester	
CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
CGT 127	Publishing—InDesign	3
CGT 161	History of Graphic Design	3
or		
CGT 244	History of Animation	3
CGT Elective		3
		PROGRAM TOTAL 18 CREDITS

Computer Graphics Technology— Post-Associate Certificate

Schoolcraft program code # PAC.00181

The Post-Associate Certificate is for those students who have a degree in Computer Graphics and/or are working in the profession and wish to add an additional area of specialty to their portfolio. Students should take a combination of 6 courses based on the specific area of study. It is highly recommended that CGT faculty be consulted when selecting courses. Students can assemble courses to develop expertise in Interactive Media and Game Design, Digital Art, Web Design, Publishing, Video Graphics, Graphic Design, or 3D Animation. Program Courses

ART 105	Basic Drawing	3
ART 115	Art History 1	4
ART 116	Art History 2	4
ART 125	Life Drawing 1	3
ART 243	Sculpture 1	3
CGT 135	Web Graphics	3
CGT 141	Introduction to Interactive Media and Game Design ..	3
CGT 149	Typography	3
CGT 154	Sound Editing for Graphic Artists	2
CGT 157	Prepress	2
CGT 162	XHTML—CSS Standards	3
CGT 166	Photography	3
CGT 168	Storyboarding	3
CGT 206	Scripting for Interactive Media and Game Design	3
CGT 208	Digital Video Production	3
CGT 210	Visual Effects Production	3
CGT 211	Flash	3
CGT 212	Flash Action Scripting	3
CGT 215	Motion Graphics 1—After Effects	3
CGT 226	Digital Imaging 2—Photoshop	3
CGT 231	Electronic Publishing	3
CGT 236	Web Design	3
CGT 237	Dynamic Web Design With ColdFusion	3
CGT 242	Advanced Interactive Media and Game Design	3
CGT 244	History of Animation	3
CGT 246	Motion Graphics 2—After Effects	3
CGT 247	3D Animation—Introduction	3
CGT 252	3D Animation—Animating	3
CGT 254	3D Animation—Advanced Models and Textures	3

PROGRAM TOTAL 16–20 CREDITS



COMPUTER INFORMATION SYSTEMS

Computer Information Systems— Programming Associate Degree

Schoolcraft program code # AAS.00012

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR Fall Semester

CIS 115	Introduction to Computer Based Systems	3
CIS 129	Introduction to Programming Logic	3
MATH 113	Intermediate Algebra for College Students	4
COMA 103	Fundamentals of Speech	3
ENG 101	English Composition 1	3
		16

Winter Semester

ENG 102	English Composition 2	3
CIS Elective	Select 1	3
CIS 170	Microsoft Windows	
CIS 178	Technical Microsoft Windows	
CIS 225	Database Management Systems	3
Science*	Select any General Education Science course	4
Elective	Select from the list below	3
		16

SECOND YEAR Fall Semester

CIS 176	Visual Basic.NET	3
CIS 211	Introduction to C++	2
CIS Elective	Select 1	3
CIS 255	Introduction to LINUX	
CIS 260**	Introduction to UNIX	
Elective	Select from the list below	6
		14

Winter Semester

CIS 250	Systems Development and Design	4
CIS 290	Object-Oriented Programming with Java	3
CIS 221	Advanced C++	2
Social Science	Select 1	3–4
POLS 105	Survey of American Government	
PSYCH 153	Human Relations	
PSYCH 201	Introductory Psychology	
Elective	Select from the list below	2–3
		14–16

PROGRAM TOTAL 60–62 CREDITS

* Number of credits may vary depending on the General Education Science course selection.

** CIS 260 is offered Winter Semester.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection

ELECTIVES

CIS 120	Software Applications	3
CIS 122	Microsoft Outlook	2
CIS 125	Principles of Information Security	3
CIS 185	Introduction to HTML	3
CIS 223	Introduction to C#	3
CIS 238	JavaScript	3
CIS 251	IT Project Management	3
CIS 255	Introduction to LINUX	3
CIS 260	Introduction to UNIX	3

Computer Information Systems— Introductory Certificate

Schoolcraft program code # 1YC.00004

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

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR Fall Semester

CIS 115	Introduction to Computer Based Systems	3
CIS 120	Software Applications	3
CIS 129	Introduction to Programming Logic	3
CIS Elective	Select 1	3
CIS 170	Microsoft Windows	
CIS 178	Technical Microsoft Windows	
		12

Winter Semester

ENG 101	English Composition 1	3
MATH 113	Intermediate Algebra for College Students	4
CIS 176	Visual Basic.NET	3
CIS 225	Database Management Systems	3
Elective	Select from the list below	2–3
		15–16

PROGRAM TOTAL 27–28 CREDITS

ELECTIVES

CIS 122	Microsoft Outlook	2
CIS 125	Principles of Information Security	3
CIS 251	IT Project Management	3
CIS 255	Introduction to LINUX	3

Computer Information Systems— Microcomputer Support Technician Associate Degree

Schoolcraft program code # AAS.00014

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall Semester	
CIS 115	Introduction to Computer Based Systems	3
CIS 171	Introduction to Networking	3
MATH 113	Intermediate Algebra for College Students	4
ENG 101	English Composition 1	3
		13
	Winter Semester	
CIS 120	Software Applications	3
CIS Elective	Select 1	3
CIS 170	Microsoft Windows	
CIS 178	Technical Microsoft Windows	
ENG 102	English Composition 2	3
CIS 173	Wireless Local Area Networks	3
CIS 235	Managing and Troubleshooting PCs	3
		15
	Spring Session	
Social Science	Select 1	3–4
POLS 105	Survey of American Government	
PSYCH 153	Human Relations	
PSYCH 201	Introductory Psychology	

SECOND YEAR Fall Semester

CIS 180	Spreadsheet Applications—Current Software	3
CIS 225	Database Management Systems	3
CIS 265	Networking 1	3
COMA 103	Fundamentals of Speech	3
Science*	Select any General Education Science course	4
		16

Winter Semester

CIS 215	Advanced Software Applications	3
CIS 250	Systems Development and Design	4
CIS 276	Networking 2	3
Elective	Select from the list below	3
		13

PROGRAM TOTAL 60–61 CREDITS

* Number of credits may vary depending on the General Education Science course selection.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection

ELECTIVES

CIS 125	Principles of Information Security	3
CIS 172	Network Security Fundamentals	3
CIS 251	IT Project Management	3
CIS 255	Introduction to LINUX	3
CIS 260	Introduction to UNIX	3
CIS 273	TCP/IP and Network Architectures	3

Computer Information Systems—Networking Technology Integration Certificate

Schoolcraft program code # 1YC.00270

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall Semester	
CIS 171	Introduction to Networking	3
CIS 170	Microsoft Windows	3
or		
CIS 178	Technical Microsoft Windows	3
CIS 235	Managing and Troubleshooting PCs	3
CIS 267	Home Technology Integration	4
ENGR 100	Introduction to Engineering and Technology	3
		16
	Winter Semester	
CIS 172	Network Security Fundamentals	3
CIS 173	Wireless Local Area Networks	3
CIS 251	IT Project Management	3
CIS 271	Local Area Networks	3
CIS 273	TCP/IP and Network Architectures	3
		15

PROGRAM TOTAL 31 CREDITS



Computer Information Systems— Web Specialist Associate Degree

Schoolcraft program code # AAS.00275

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

This degree is designed to prepare the Internet Professional to design Web pages and to program for the Web. It provides the working knowledge of various programming languages, multimedia technologies, graphic development, and Web design tools. The Internet Professional may be involved with designing, developing, operating, maintaining and managing Web-based publishing.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR		Fall Semester	
CGT 109	Design Concepts and Technology	3	
CGT 123	Illustration—Illustrator.....	3	
CGT 125	Digital Imaging 1—Photoshop.....	3	
CIS 129	Introduction to Programming Logic.....	3	
MATH 113	Intermediate Algebra for College Students	4	
		16	
		Winter Semester	
ENG 101	English Composition 1	3	
CIS 171	Introduction to Networking	3	
CGT 162	XHTML—CSS Standards	3	
CGT 135	Web Graphics	3	
COMA 103	Fundamentals of Speech.....	3	
		15	
		Spring Session	
ENG 102	English Composition 2	3	
SECOND YEAR		Fall Semester	
CIS 250	Systems Development and Design.....	4	
CGT 236	Web Design.....	3	
CIS 238	JavaScript	3	
Social Science	Select 1	3	
POLS 105	Survey of American Government		
PSYCH 153	Human Relations		
Elective	Select from the list below.....	3	
		16	
		Winter Semester	
HUM 106	Introduction to Art and Music	1	
CGT 237	Dynamic Web Design With ColdFusion	3	
CGT 211	Flash	3	
Science*	Select any General Education Science course.....	4	
Elective	Select from the list below.....	3	
		14	

PROGRAM TOTAL 64 CREDITS

* Number of credits may vary depending on the General Education Science course selected.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

ELECTIVES

CIS 125	Principles of Information Security	3
CIS 176	Visual Basic.NET	3
CIS 185	Introduction to HTML.....	3
CIS 223	Introduction to C#.....	3
CIS 225	Database Management Systems.....	3
CIS 255	Introduction to LINUX.....	3
CGT 141	Introduction Interactive Media and Game Design	3
CGT 206	Scripting for Interactive Media and Game Design.....	3

Computer Information Systems— Web Specialist Certificate

Schoolcraft program code #1YC.00241

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

This certificate is designed to provide students with an overview of the technical programming and graphic design areas for Web page development.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR		Fall Semester	
CGT 109	Design Concepts and Technology	3	
CGT 123	Illustration—Illustrator.....	3	
CGT 125	Digital Imaging 1—Photoshop.....	3	
CGT 162	XHTML—CSS Standards	3	
		12	
		Winter Semester	
CIS 129	Introduction to Programming Logic.....	3	
CGT 135	Web Graphics	3	
CIS 238	JavaScript	3	
CGT 211	Flash	3	
		12	
SECOND YEAR		Fall Semester	
CGT 236	Web Design.....	3	
		Winter Semester	
CGT 237	Dynamic Web Design With ColdFusion	3	

PROGRAM TOTAL 30 CREDITS



Computer Information Systems— Programming Skills Certificate

Schoolcraft program code # CRT.00366

The Microsoft .NET framework is a common environment for building, deploying, and running Web Services and Web Applications in the Windows environment. This certificate is designed to introduce the student to the top four programming languages used in software development today. The student will use the new Visual Studio.NET, which is a common development environment for the new .NET Framework. The .NET Framework provides a feature-rich application execution environment, simplified development, and easy integration between a number of different development languages.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	
Fall Semester	
CIS 129	Introduction to Programming Logic..... 3
Winter Semester	
CIS 176	Visual Basic.NET 3
CIS 211	Introduction to C++ 2
	5
SECOND YEAR	
Fall Semester	
CIS 221	Advanced C++..... 2
CIS 223	Introduction to C#..... 3
	5
Winter Semester	
CIS 290	Object-Oriented Programming with Java..... 3

PROGRAM TOTAL 16 CREDITS

Computer Information Systems— Post-Associate Certificate

Schoolcraft program code # PAC.00155

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

Prior to admission in this program, students must have already completed a minimum of an accredited Associate Degree in Applied Science. All courses are not offered each semester. Students should work with the Counseling Center to set up a schedule that will work for them. The Post-Associate Certificate is awarded upon successful completion of 15 credit hours (exact number may vary slightly due to credit value of courses).

PROGRAM COURSES

CIS 185	Introduction to HTML.....	3
CIS 211	Introduction to C++.....	2
CIS 221	Advanced C++.....	2
CIS 223	Introduction to C#.....	3
CIS 235	Managing and Troubleshooting PCs.....	3
CIS 238	JavaScript.....	3
CIS 250	Systems Development and Design.....	4
CIS 251	IT Project Management.....	3
CIS 255	Introduction to LINUX.....	3
CIS 260	Introduction to UNIX.....	3
CIS 265	Networking 1.....	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 can be taken through independent study.



COMPUTER SERVICE

Computer Service Technician Certificate

Schoolcraft program code # 1YC.00159

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	
Fall Semester	
CIS 235	Managing and Troubleshooting PCs 3
COMPS 124	Introduction to Personal Computers and Software..... 3
ELECT 131	Basic Measurement and Reporting Skills..... 3
ELECT 137	DC Circuits and Mathematical Modeling..... 5
	14
Winter Semester	
CIS 265	Networking 1 3
COMPS 126	Technical Programming..... 3
COMPS 147	Computer and Peripheral Maintenance and Management 4
CIS 120	Software Applications 3
	13
Spring Session	
Elective*	CIS..... 3
PROGRAM TOTAL 30 CREDITS	

* Any CIS course not previously taken.



COSMETOLOGY MANAGEMENT

Cosmetology Management Associate Degree

Schoolcraft program code # AAS.00010

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

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	
Fall Semester	
BUS 101	Introduction to Business 3
BUS 103	Organizing a Small Business..... 3
MATH 101	Business Mathematics 3
ENG 100	Communication Skills 3
PSYCH 153	Human Relations 3
	15
Winter Semester	
ACCT 103	Introduction to Accounting 4
BUS 104	Operating a Small Business..... 3
COMA 103	Fundamentals of Speech..... 3
ENG 116	Technical Writing 3
Social Science	Select 1 3
	POLS 105 Survey of American Government
	SOC 201 Principles of Sociology
	16
Spring Session	
BIOL 101	General Biology..... 4
CIS 105	Computer Orientation..... 1
HUM 106	Introduction to Art and Music 1
	6
PROGRAM TOTAL 37 CREDITS	

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.



CRIMINAL JUSTICE

Criminal Justice Associate Degree

Schoolcraft program code # AAS.00086

The criminal justice system is a complex system of thousands of federal, state, and local agencies interconnected by the individuals that work in this field. Employment at any level in criminal justice requires an understanding of the sociological, psychological, biological, and environmental factors that may influence deviant or criminal behavior. Employees of the criminal justice system use developed skills to investigate human behaviors and take the appropriate measures to ensure the safety of society. The Criminal Justice Associate in Applied Science Degree Program objectives assists existing employees of the criminal justice system and prepares students for full employment in this field.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR Fall Semester

CJ 113	Introduction to Criminal Justice System	3
CJ 102	Organization and Administration of Law Enforcement Agencies.....	3
POLS 105	Survey of American Government.....	3
COMA 103	Fundamentals of Speech.....	3
ENG 101	English Composition 1	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
English	Select 1	3
ENG 116	Technical Writing	
ENG 102	English Composition 2	
CJ 107	Police Field Operations	3
		16

SECOND YEAR Fall Semester

CJ 209	Basic Criminalistics.....	3
CJ 211	Criminal Law and Procedure.....	3
BIOL 103	Health Education	3
CIS 105*	Computer Orientation.....	1
MATH 101	Business Mathematics	3
Elective**		3
		16

Winter Semester

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

PROGRAM TOTAL 62 CREDITS

* CIS 105 may be waived if student has successfully completed a high school computer course or equivalent within the past five years.

** Any 100- or 200-level course not previously taken.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

For more information about certification please contact:

Michigan Commission on Law Enforcement Standards (MCOLES)
106 W. Allegan Street, Suite #600, Lansing, MI 48933
517-322-1417; www.michigan.gov/mcoles

Criminal Justice Associate Degree with Academy

Schoolcraft program code # AAS.00086

In this program, the criminal justice courses are restricted to students who are officially admitted to this program.

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

Candidates for employment as law enforcement officers must be certified by the Michigan Commission on Law Enforcement Standards (MCOLES). After completing the Police Academy (CJ 287), students may become certifiable by passing the MCOLES Certification Exam. Certification is valid for one year. Pre-service students, who are not employed by a law enforcement agency, must complete 41 credit hours of course work for the Associate Degree before taking CJ 287.

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

Becoming a law enforcement officer requires candidates to meet certain psychological and physical requirements. Please review "Employment Standards for Michigan Law Enforcement Officers" available at www.michigan.gov/mcoles prior to beginning this area of study.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR Fall Semester

CJ 102	Organization and Administration of Law Enforcement Agencies.....	3
POLS 105	Survey of American Government.....	3
COMA 103	Fundamentals of Speech.....	3
ENG 101	English Composition 1	3
BIOL 103	Health Education	3
		15

Winter Semester

COR 110	Introduction to Corrections.....	3
CJ 211	Criminal Law and Procedure.....	3
PSYCH 153	Human Relations	3
English	Select 1	3
ENG 116	Technical Writing	
ENG 102	English Composition 2	
CIS 105*	Computer Orientation.....	1
		13

SECOND YEAR Fall Semester

MATH 101	Business Mathematics	3
CJ 209	Basic Criminalistics.....	3
CJ 212	Criminology.....	3
CJ 221	Juvenile Justice	3
SOC 201	Principles of Sociology.....	3
		15

Winter Semester

CJ 287**	Police Academy	21
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PROGRAM TOTAL 64 CREDITS

* CIS 105 may be waived if student has successfully completed a high school computer course or equivalent within the past five years.

** CJ 287 requires a special admissions process. Contact the Public Safety Education Office at 734-462-4747 for application requirements.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

CULINARY ARTS

Culinary Arts Associate Degree

Schoolcraft program code # AAS.00087

The Culinary Arts Associate Degree Program provides the skills necessary to enter food service occupations at advanced levels. The technical portion of the curriculum prepares students in quality food preparation, advanced food preparation, cost control, portion control, quantity baking, quantity pastry, advanced pastry, meat cutting, garde manger, dining room operation and classical cooking techniques. Food purchasing and storage functions, menu formulation, terminology, and decorative culinary skills are also covered.

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

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

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

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES

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

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

FIRST YEAR Fall Semester

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

Winter Semester

CAP 142	Butchery	4
CAP 128	Introduction to Food Techniques	4
CAP 143	Dining Room Service	4
MATH 101	Business Mathematics	3
		15

Spring/Summer Session

CHEM 100	Introduction to the Chemistry of Food for Culinary Arts	4
ENG 106	Business English	3
HUM 106	Introduction to Art and Music	1
CAP 241**	Culinary Nutrition	2
Elective***	Select one course from the list below	3–4
		13–14

SECOND YEAR Fall Semester

CAP 227	Restaurant Cooking and Preparation	4
CAP 215	Charcuterie	4
CAP 244	International and American Cuisine	8
		16

Winter Semester

CAP 240	Pastries 2	4
CAP 242	À la Carte	4
CAP 243	Storeroom Operations	3
PSYCH 153	Human Relations	3
		14

PROGRAM TOTAL 73–74 CREDITS

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

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

*** If BUS 217 or BUS 226 is selected, student must first complete the prerequisite course of BUS 101.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection

ELECTIVES

Select one course (3–4 credit hours) from the classes listed below to fulfill the elective requirement:

ART 105	Basic Drawing 1	3
BUS 122	Advertising	3
BUS 207	Business Law 1	3
BUS 217***	Business Management	3
BUS 220	Supervision	3
BUS 226***	Principles of Marketing	3
CIS 120	Software Applications	3
CM 107**	Culinary Management—Food and Culture	3
CM 109**	Hospitality Law	3
CM 203	Restaurant Concepts and Design	3
CM 210**	Wine and Spirits	3
CAP 191	Externship	3
CAP 247**	Banquets and Catering	3
CAP 260**	Competitive Ice Carving	3
CAP 265**	Advanced Competitive Ice Carving	3
CAP 267	Chocolatier	4
CAP 295	Salon Competition 1	3
CAP 297	Salon Competition 2	4

The Culinary Arts Program is certified by the American Culinary Federation Education Foundation Accrediting Commission (ACFEFAC). Accreditation assures that a program is meeting standards and competencies set for faculty, curriculum and student services.

For more information on accreditation please contact:

American Culinary Federation
180 Center Place Way
St. Augustine, FL 32095
904-824-4468

Candice Childers, Assistant Director of Accreditation,
cchilders@acfcchefs.net

Culinary Arts Certificate

Schoolcraft program code # 1YC.00079

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

Students who complete the Program Courses qualify for a Certificate of Program completion. Upon completion of the 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 College Requirements.

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

ADMISSION PREREQUISITES

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

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

SAMPLE SCHEDULE OF COURSES**FIRST YEAR Fall Semester**

CAP 144	Baking.....	4
CAP 124	Breakfast and Pantry.....	4
CAP 125	Pastries 1.....	4
MATH 101	Business Mathematics.....	3
ENG 100	Communication Skills.....	3
		18

Winter Semester

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

PROGRAM TOTAL 35 CREDITS

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

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

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor.

**CULINARY BAKING AND PASTRY ARTS****Culinary Baking and Pastry Arts Certificate**

Schoolcraft program code # 1YC.00247

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

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

This program contains some courses restricted to students officially admitted to this program. Students who satisfactorily complete the Program Courses qualify for a Certificate of Program completion.

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

ADMISSION PREREQUISITES

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

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

FIRST YEAR Fall Semester

CBPA 125	Pastries.....	20
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Winter Semester

CBPA 144	Baking.....	15
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PROGRAM TOTAL 35 CREDITS

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



ELECTRONIC TECHNOLOGY

Electronic Technology Associate Degree

Schoolcraft program code # AAS.00120

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

The program is not directly aimed at specific products. With the multiplicity of equipment presently in use and the rapid advance and change in technology, the department stresses the development of a broad background that will enable students to find employment and be able to further their skills in a diversified number of industries.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR Fall Semester	
ELECT 131	Basic Measurement and Reporting Skills..... 3
ELECT 137	DC Circuits and Mathematical Modeling..... 5
ENG 101	English Composition 1 3
Science	Select 1 4–5
BIOL 105	Basic Human Anatomy and Physiology
CHEM 111	General Chemistry 1
PHYS 123	Applied Physics
15–16	

Winter Semester	
ELECT 138	AC Circuits and Mathematical Modeling..... 5
ELECT 139	Diodes and Transistors 3
COMPS 126	Technical Programming..... 3
11	

Spring/Summer Session	
ELECT 215	Operational Amplifiers and Linear Integrated Circuits..... 4
ELECT 219	Digital Logic Circuits..... 4
8	

SECOND YEAR Fall Semester

ELECT 144	Introduction to Microcontrollers 3
ELECT 218	AC/DC Motors 3
Social Science	Select 1 3
POLS 209	International Relations
PSYCH 153	Human Relations
SOC 210	Cultural Diversity
Elective*	Select from the list below 3
English	Select 1 3
ENG 102	English Composition 2
ENG 116	Technical Writing
15	

Winter Semester	
ELECT 251	Programmable Logic and Industrial Controls 4
Elective*	Select from the list below 3–4
Math	Select 1 3–4
MATH 101	Business Mathematics
MATH 113	Intermediate Algebra for College Students
HUM 106	Introduction to Art and Music 1
11–13	

PROGRAM TOTAL 60–63 CREDITS

* Number of credits may vary depending on the course selection.

ELECTIVES

BMET 125	Laser Safety Concepts 3
CIS 171	Introduction to Networking 3
CIS 235	Managing and Troubleshooting PCs 3
COMPS 124	Introduction to Personal Computers and Software..... 3
ELECT 133	Introduction to Battery Technology..... 3
ELECT 145	Fluid Power 4
ELECT 228	Electronic Troubleshooting 3
ELECT 252	Programmable Logic System Design 4
MET 102	Introduction to Materials Science..... 3

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

Electronic Technology Skills Certificate

Schoolcraft program code # CRT.00320

The Electronic Technology Certificate is intended for students wishing to gain the basic skills needed for entry-level jobs in electronics. Completion of the skills certificate permits the student to take electrical measurements, understand DC and AC signals, and apply solid-state troubleshooting techniques used in modern jobs involving electronics.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR Fall Semester	
ELECT 131	Basic Measurement and Reporting Skills..... 3
ELECT 137	DC Circuits and Mathematical Modeling..... 5
8	

Winter Semester	
ELECT 138	AC Circuits and Mathematical Modeling..... 5
ELECT 139	Diodes and Transistors 3
8	

PROGRAM TOTAL 16 CREDITS

Electronic Technology Certificate

Schoolcraft program code # 1YC.00125

The certificate for electronics provides the student with a solid foundation for many jobs that require a thorough understanding of electronic fundamentals. Completion of the certificate program also offers the student the opportunity to pursue advanced technical credentials in health care, in manufacturing, or in computer systems.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR Fall Semester	
ELECT 131	Basic Measurement and Reporting Skills..... 3
ELECT 137	DC Circuits and Mathematical Modeling..... 5
COMPS 126	Technical Programming..... 3
Science	Select 1 4–5
BIOL 105*	Basic Human Anatomy and Physiology
CHEM 111	General Chemistry 1
PHYS 123	Applied Physics
15–16	

Winter Semester	
ELECT 138	AC Circuits and Mathematical Modeling..... 5
ELECT 139	Diodes and Transistors 3
8	

SPRING/SUMMER SESSION

ELECT 215	Operational Amplifiers and Linear Integrated Circuits.... 4
ELECT 219	Digital Logic Circuits..... 4
8	

PROGRAM TOTAL 31–32 CREDITS

* BIOL 105 is required for the BMET program internship sequence.

EMERGENCY MEDICAL TECHNOLOGY

Emergency Medical Technology— Paramedic Associate Degree

Schoolcraft program code # AAS.00250

The Emergency Medical Technology Paramedic Program prepares students for employment as emergency providers. A combination of lecture, laboratory, clinical and internship will be utilized to help fulfill all training requirements.

All courses are approved by the Michigan Department of Community Health EMS and Trauma Systems Section. Students achieving an 80 percent or higher in required courses will receive a certificate of completion and be eligible to test for State licensure.

Students will be evaluated in the following core competency areas: didactic, practical, clinical and internship performance. Practical skills are graded on a pass/fail basis, and students will be required to pass all skills examinations to successfully complete the program. All clinical and internship rotations will be graded on attendance, attitude and skills performance which will be evaluated by field mentors, clinical coordinator and/or the course instructor. All students will be required to purchase liability insurance which is valid for one year.

Students are admitted twice a year into the Paramedic Program, once in the fall and again in the winter semesters. All Emergency Medical Technology courses must be taken in sequence.

Students who successfully complete all College Requirements qualify for an Associate Degree in Applied Science Degree.

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

FIRST YEAR	
Fall Semester	
BIOL 101	General Biology..... 4
ENG 100	Communication Skills 3
MATH 101	Business Mathematics 3
HIT 100	Introduction to Medical Terminology..... 2
	12
Winter Semester	
EMT 115	Emergency Medical Technology—Basic 10
BIOL 236	Human Anatomy and Physiology 5
	15
Spring Session	
HIT 114	Pharmacology for Health Professionals 2
PSYCH 153	Human Relations 3
	5
Summer Session	
CIS 105	Computer Orientation..... 1
ENG 116	Technical Writing 3
HUM 106	Introduction to Art and Music 1
	5
SECOND YEAR	
Fall Semester	
EMT 210	Paramedic Technology 1 10
Winter Semester	
EMT 220	Paramedic Technology 2 10.5
Spring Session	
EMT 230	Paramedic Technology 3 9
PROGRAM TOTAL 66.5 CREDITS	
ELECTIVES (OPTIONAL)	
EMT 120	Emergency Medical Technology—Specialist..... 5.5
HIT 113	Human Diseases 3
MA 110	Phlebotomy..... 4

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

For more information on certification, please contact:

Michigan Department of Community Health
EMS & Trauma Systems Section
Capitol View Building, 6th Floor
201 Townsend Street
Lansing, Michigan 48913
517-241-9458

www.michigan.gov/ems

Emergency Medical Technology— Paramedic Certificate

Schoolcraft program code # 1YC.00024

The Emergency Medical Technology Paramedic Certificate Program prepares students for employment as pre hospital emergency medical providers. A combination of lecture, laboratory, clinical and internship will be utilized to help fulfill all training requirements.

All courses are approved by the Michigan Department of Community Health EMS and Trauma Systems Section. Upon successful completion, students will be eligible to take the National Registry Certification test as required by the State of Michigan for licensure. Students will be evaluated in the following core competency areas: didactic, practical, clinical and internship performance. Students achieving an 80 percent or higher will receive a certificate of completion and be eligible for State licensure. Practical skills are graded on a pass/fail basis and students will be required to pass all practical examinations to successfully complete the program.

All clinical and internship rotations will be graded on attendance, attitude and skills performance which will be evaluated by field mentors, clinical coordinator and/or the course instructor. All students will be required to purchase liability insurance which is valid for one year.

The Emergency Medical Technology Certificate Program will be awarded to students who successfully complete: EMT 115, 210, 220 and 230 with 80 percent or higher in addition to successfully passing all pre-requisite/supportive courses as outlined.

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

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	
Winter Semester	
EMT 115	Emergency Medical Technology—Basic 10
BIOL 101	General Biology..... 4
	14
Spring Session	
BIOL 236	Human Anatomy and Physiology 5
SECOND YEAR	
Fall Semester	
EMT 210	Paramedic Technology 1 10
Winter Semester	
EMT 220	Paramedic Technology 2 10.5
Spring Session	
EMT 230	Paramedic Technology 3 9
PROGRAM TOTAL 48.5 CREDITS	
ELECTIVE (OPTIONAL)	
EMT 120	Emergency Medical Technology—Specialist..... 5.5

ENVIRONMENTAL STUDIES

Environmental Studies Associate Degree

Schoolcraft program code # AAS.00176

The Environmental Studies Program is an interdisciplinary program that concentrates on the identification of environmental problems and the analysis of the complex interactions of human populations with the earth. The program includes discussions of technology and how it impacts the environment. Program courses incorporate the concept of sustainable development, a form of economic development that encourages economic growth while at the same time improving quality of life and preserving the environment. The capstone course is a Field Experience course where students apply classroom knowledge to a field environmental issue. Students in the Environmental Studies program can transfer to a four year Environmental Studies or Environmental Science program, or complete an Environmental Technician Certificate.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR Fall Semester

ENG 101	English Composition 1	3
COMA 103	Fundamentals of Speech.....	3
MATH 113	Intermediate Algebra for College Students	4
GEOG 135	Earth Systems	4
		14

Winter Semester

ENG 102	English Composition 2	3
GEOG 212	Environmental Science.....	3
ENVR 107	Soil Mechanics	4
ART 115	Art History 1.....	4
		14

SECOND YEAR Fall Semester

POLS 105	Survey of American Government.....	3
CIS 225	Database Management Systems	3
ENVR 230	Energy Resources	3
GEOG 225	Introduction to Geographic Information Systems—GIS	4
		13

Winter Semester

CHEM 111	General Chemistry 1	4
GEOG 217	Water Resources	3
ENVR 206	Environmental Law	3
GEOG 203	Weather and Climate	3
ENVR 235	Geographic Methods Applied to Environmental Problems	3
		16

Spring Session

ENVR 232	Field Experience.....	3
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PROGRAM TOTAL 60 CREDITS

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

Environmental Science Technician Certificate

Schoolcraft program code #1YC.00276

Environmental science technicians provide technical assistance to engineers and scientists by performing tasks such as sample collection, laboratory tests, monitoring, and data management. The Environmental Science Technician applies scientific and technical skills and knowledge to specific tasks. Technicians have strong written and oral communication skills, computer skills, and practical hands on training in the field and laboratory. Technicians can problem solve quickly and apply their classroom knowledge to real world situations. The Environmental Science Technician Program provides students with the necessary background to be successful technicians.

Upon completion of this certificate program, it is highly recommended that students complete the 40 hour Hazardous Waste Operations and Emergency Response (Hazwoper) training from any certified location.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR Fall Semester

GEOG 135	Earth Systems.....	4
MATH 113	Intermediate Algebra for College Students	4
GEOG 225	Introduction to Geographic Information Systems—GIS	4
		12

Winter Semester

ENVR 107	Soil Mechanics	4
ENVR 206	Environmental Law	3
GEOG 212	Environmental Science.....	3
GEOG 217	Water Resources	3
ENVR 235	Geographic Methods Applied to Environmental Problems.....	3
		16

Spring Session

ENVR 232	Environmental Field Experience	3
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PROGRAM TOTAL 31 CREDITS



FIRE TECHNOLOGY

Fire Technology Associate Degree

Schoolcraft program code # AAS.00177

Recognizing the need for more highly skilled fire fighters, many municipalities now require additional education for their employees. The curriculum developed for the Associate in Applied Science Degree Program combines lecture with hands-on activities to prepare the student to respond to a variety of emergencies. Specialists in the field provide valuable input on both content and methodology.

The Fire Technology Associate Degree Program is designed for students who wish to attend part time. All courses are not offered each semester. Students should work with the Counseling Center to set up a schedule that will work for them. Students who successfully complete all College Requirements qualify for an Associate in Applied Science Degree with emphasis on Fire Technology.

Contact the Fire Technology Office at 734-462-4745 for additional information.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	
Fall Semester	
FIRE 112	Fire Fighter 1—Basic Fire Suppression 10
ENG 100	Communication Skills 3
MATH 101	Business Mathematics 3
	16
Winter Semester	
FIRE 119	Fire Fighter 2—Advanced Fire Suppression..... 10
BIOL 101	General Biology..... 4
PE 202	Lifestyle Fitness—Wellness 2
	16
Spring/Summer Session	
FIRE 125	Building Construction for the Fire Service 3
HUM 106	Introduction to Art and Music 1
	4
SECOND YEAR	Fall Semester
ENG 116	Technical Writing 3
EMT 115	Emergency Medical Technology—Basic 10
FIRE 130	Fire Fighting—Tactics and Strategy..... 3
	16
Winter Semester	
FIRE 128	Fire Fighting—Hydraulics and Water Supply 4
PSYCH 153	Human Relations 3
FIRE 200	Fire and Arson Investigation 4
Elective*	Select from the list below..... 3
	14
PROGRAM TOTAL 66 CREDITS	

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

* ELECTIVES

FIRE 135	Fire Protection Systems..... 3
FIRE 205	Fire Department Organization and Administration 3
FIRE 207	Fire Company Officer..... 3
BIOL 236	Human Anatomy and Physiology..... 5

Fire Technology Associate Degree with Academy

Schoolcraft program code # AAS.00177

The Fire Technology Associate Degree with Academy is designed for students who wish to attend full time.

All courses are not offered each semester. Students should work with the Counseling Center to set up a schedule that will work for them. Students who successfully complete all College Requirements qualify for an Associate in Applied Science Degree with emphasis on Fire Technology.

Contact the Fire Technology Office at 734-462-4745 for additional information.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	
Fall Semester	
FIRE 124	Fire Academy..... 20
	Winter Semester
ENG 100	Communication Skills 3
MATH 101	Business Mathematics 3
FIRE 200	Fire and Arson Investigation 4
BIOL 101	General Biology..... 4
	14
Spring/Summer Session	
FIRE 125	Building Construction for the Fire Service 3
HUM 106	Introduction to Art and Music 1
	4
SECOND YEAR	Fall Semester
ENG 116	Technical Writing 3
EMT 115	Emergency Medical Technology—Basic 10
FIRE 130	Fire Fighting—Tactics and Strategy..... 3
	16
Winter Semester	
FIRE 128	Fire Fighting—Hydraulics and Water Supply 4
PSYCH 153	Human Relations 3
PE 202	Lifestyle Fitness—Wellness 2
Elective*	Select from the list below..... 3
	12

PROGRAM 66 CREDITS

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

* ELECTIVES

FIRE 135	Fire Protection Systems..... 3
FIRE 205	Fire Department Organization and Administration 3
FIRE 207	Fire Company Officer..... 3
BIOL 236	Human Anatomy and Physiology..... 5

The Fire Technology Fire Fighter I & II programs are certified by the Michigan Fire Fighters Training Council. For more information regarding certification, call 616-447-2689; www.michigan.gov.

Fire Fighter Technology Certificate

Schoolcraft program code # 1YC.00149

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

Fire Fighter 1, 2, and/or Academy courses require students to attain an average of 70 percent or better on test scores and to score at least 70 percent on their final exam to receive a passing grade of 2.0. The Emergency Medical Technology - Basic course requires an average of 80 percent on tests and an 80 percent on the final for a grade of 2.7. Students achieving an 80 percent or higher in Emergency Medical Technology-Basic course will receive a certificate of completion and be eligible to test for State licensure. 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.

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

Contact the Fire Technology Office at 734-462-4745 for additional information.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	
Fall Semester	
FIRE 112	Fire Fighter 1—Basic Fire Suppression 10
Winter Semester	
FIRE 119	Fire Fighter 2—Advanced Fire Suppression 10
Spring Session	
EMT 115	Emergency Medical Technology—Basic 10
PROGRAM TOTAL 30 CREDITS	

(ALTERNATE) FIRST YEAR Fall Semester

FIRE 124	Fire Academy 20
Winter Semester	
EMT 115	Emergency Medical Technology—Basic 10



HEALTH INFORMATION TECHNOLOGY

Health Information Technology Associate Degree

Schoolcraft program code # AAS.00153

The Health Information Technology program will prepare the student to be a Health Information Technician. The technician is responsible for performing tasks related to the use, analysis, validation, presentation, abstracting, coding, storage, security, retrieval, quality measurement and control of healthcare data in a medical record and/or computer-based patient record.

The program coordinates classroom, laboratory and off-campus experience in a variety of healthcare facilities, such as acute care hospital, ambulatory care center, mental health facility and other health related facilities. The off-campus activities include supervised, professional practice assignments. The student gains experience in applying knowledge to technical procedures in health information systems.

The Health Information Technician is detail oriented and recognizes the business aspects of healthcare. The technician will have a strong interest in activities, such as assisting medical staff in evaluating the quality of healthcare, safeguarding the confidentiality of medical records and utilizing healthcare data.

Health Information Technology courses should be taken in accordance with prerequisites; a minimum grade of 2.0 is required. Graduates are eligible to take the Registered Health Information Technician (RHIT) examination. The program is designed for the full-time or part-time student.

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

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

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES

BIOL 236*	Human Anatomy and Physiology	5
HIT 104	Medical Terminology	4
CIS 120	Software Applications	3
HIT 109	Principles of Health Information Management	3
		15

FIRST YEAR Fall Semester

HIT 113	Human Diseases	3
HIT 112	Basic Laboratory and Diagnostic Tests	2
HIT 114	Pharmacology for Health Professionals	2
ENG 101	English Composition 1	3
MATH 101	Business Mathematics	3
		13

Winter Semester

HIT 111	ICD-9-CM Classification	3
HUM 106	Introduction to Art and Music	1
ENG 102	English Composition 2	3
HIT 158	Clinical Affiliation 1	2
HIT 116	Legal Aspects of Health Information	2
		11

Spring/Summer Session

PSYCH 153	Human Relations	3
HIT 216	Healthcare Delivery Systems	2
		5

SECOND YEAR Fall Semester

HIT 210	Healthcare Statistics for Health Information Management	3
HIT 217	Quality Management in Health Care	2
HIT 222	Basic Ambulatory Coding	3
HIT 256**	Clinical Affiliation 2	2
HIT 232	Computer Applications in Healthcare	2
		12

Winter Semester

HIT 240	Healthcare Reimbursement Methodologies	2
HIT 219	Organization and Management	2
HIT 233	Intermediate ICD-9-CM Coding	3
HIT 234	Intermediate Ambulatory Coding	3
HIT 258**	Clinical Affiliation 3	2
		12

PROGRAM TOTAL 68 CREDITS

ELECTIVE (OPTIONAL)

HIT 213	Health Information Technology Seminar	1
HIT 230**	ICD-9-CM Coding Practicum	2
HIT 231**	Ambulatory Coding Practicum	2

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

** Contact HIT faculty to consider substitution.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

For more information on accreditation please contact:

Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM)
233 N. Michigan Ave., Suite 2150
Chicago, Illinois 60611-5519
312-233-1131
www.cahiim.org



Health—Coding Specialist Certificate

Schoolcraft program code # 1YC.00240

The Coding Specialist Program will prepare a student to review and analyze health records to identify relevant diagnoses and procedure for patient services in the inpatient, ambulatory and/or ancillary setting. The student will practice translating diagnostic and procedural phrases utilized by healthcare providers into coded form.

In the program, students apply the following skills:

- Coding of inpatient diagnoses and procedures using International Classification of Diseases (ICD-9-CM).
- Coding of ambulatory setting procedures and services using Current Procedural Terminology (CPT).
- Reading and interpreting health record documentation to identify all diagnoses and procedures that affect the current inpatient stay/outpatient encounter visit.
- Applying approved coding guidelines to assign and sequence the correct diagnosis; applying procedure codes for hospital inpatient and outpatient services.

Minimum grade of 2.0 is required for progression to the next Health Information Technology course. A minimum grade of 2.0 is required for the basic science course.

The coder can be employed in hospital departments such as health information services (medical records), quality management, professional fee services, radiology, emergency room, outpatient/ambulatory surgery, ancillary services, and specialty physician clinics. Coders also work as independent contractors, consultants and trainers. The coding professional is employed by insurance companies, government agencies, health maintenance organizations and other facilities involved with various aspects of the reimbursement process of health claims.

The curriculum in the Coding Specialist Program will allow the student to select the Health Information Technology Associate Degree Program as a career path. Students who satisfactorily complete the Program courses qualify for a Certificate of Program completion.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall Semester	
BIOL 236*	Human Anatomy and Physiology	5
HIT 104	Medical Terminology	4
HIT 109	Principles of Health Information Management	3
		12
	Winter Semester	
HIT 113	Human Diseases	3
HIT 111	ICD-9-CM Classification	3
		6
SECOND YEAR	Fall Semester	
HIT 112	Basic Laboratory and Diagnostic Tests	2
HIT 114	Pharmacology for Health Professionals	2
HIT 222	Basic Ambulatory Coding	3
		7
	Winter Semester	
HIT 233	Intermediate ICD-9-CM Coding	3
HIT 234	Intermediate Ambulatory Coding	3
		6
	Spring Session	
HIT 230	ICD-9-CM Coding Practicum	2
HIT 231	Ambulatory Coding Practicum	2
		4

PROGRAM TOTAL 35 CREDITS

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

All courses may be applied toward the Associate of General Studies Degree.

HOMELAND SECURITY**Homeland Security Associate Degree**

Schoolcraft program code # AAS.00252

After 9/11 the security industry has expanded rapidly. The United States Department of Homeland Security employs over 180,000 individuals. Coupled with that, the private security industry employs nearly 1.5 million security personnel. The Homeland Security Degree Program is focused on providing students with a foundation of private and homeland security knowledge to build upon as a transfer to a specialty degree. The objectives of the Homeland Security Associate Degree Program are to upgrade personnel employed in the security industry and to prepare students for full-time employment in this field.

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

Contact the Public Safety Education Office at 734-462-4747 for more information.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall Semester	
CJ 102	Organization and Administration of Law Enforcement Agencies	3
HS 101	Introduction to Homeland Security	3
English	Select 1	3
ENG 100	Communication Skills	
ENG 101	English Composition 1	
POLS 105	Survey of American Government	3
PSYCH 153	Human Relations	3
		15
	Winter Semester	
MATH 101	Business Mathematics	3
English	Select 1	3
ENG 116	Technical Writing	
ENG 102	English Composition 2	
CJ 104	Introduction to Security	3
CJ 113	Introduction to Criminal Justice System	3
HS 102	Understanding Terrorism	3
		15
SECOND YEAR	Fall Semester	
BIOL 103	Health Education	3
CJ 201	Criminal Investigation	3
HS 103	Transportation and Border Security	3
HS 202	Introduction to Emergency Management	3
SOC 201	Principles of Sociology	3
		15
	Winter Semester	
CIS 115	Introduction to Computer Based Systems	3
CJ 211	Criminal Law and Procedures	3
HS 201	Organizational and Facility Security	3
HS 203	Intelligence Analysis and Security Management	3
Humanities	Select any General Education Humanities course	4
	Any 100 or 200 Foreign Language course (recommended)	
		16

PROGRAM TOTAL 62 CREDITS

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

MANUFACTURING

Advanced Manufacturing Associate Degree

Schoolcraft program code # AAS.00135

The Advanced Manufacturing Program is designed to provide learners with growth and development in a variety of manufacturing processes, to expose them to materials and methods of production and make them aware of quality systems and tools. While this program offers an entry-level certification for individuals pursuing a career in manufacturing, it has been designed to enable individuals the opportunity to continually expand and upgrade their applied skills as well as to maintain a thorough mastery of evolving manufacturing technologies.

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall Semester	
MFG 102	Basic Machining Processes	3
MFG 105	Manufacturing Processes	4
ENG 100*	Communication Skills	3
MATH 113	Intermediate Algebra for College Students	4
MET 102	Introduction to Materials Science.....	3
		17
	Winter Semester	
MFG 103	Basic Computer Numerical Control (CNC)	3
MFG 106	Basic Mastercam	3
ENG 106*	Business English.....	3
MET 114	Engineering Materials	3
ENGR 100	Introduction to Engineering and Technology	3
		15
	Spring Session	
CAD 103	Engineering Graphics	3
CHEM 111*	General Chemistry 1	4
		7
SECOND YEAR	Fall Semester	
MFG 203	Advanced Computer Numerical Control (CNC).....	3
MFG 206	Advanced Mastercam	3
SOC 201*	Principles of Sociology.....	3
HUM 106*	Introduction to Art and Music	1
		10
	Winter Semester	
MFG 211	3D Computer Numerical Control (CNC) Machining..	3
QM 107	Quality Planning and Team Building	3
WELD 110	Introduction to Welding for Fabrication Basics	3
Electives**	Select from the list below	3-4
		12-13

PROGRAM TOTAL 61-62 CREDITS

* Other courses meeting the College requirements may be substituted.

** Number of credits may vary depending on the course selection.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

ELECTIVES

BUS 103	Organizing a Small Business.....	3
CAD 106	Advanced Drawing Views and Descriptive Geometry...	4
ELECT 251	Programmable Logic and Industrial Controls	4
WELD 115	Gas Metallic Arc Welding (G.M.A.W. /M.I.G.).....	3
WELD 119	Gas Tungsten Inert Arc Welding (G.T.A.W. /T.I.G.)...	3

Advanced Manufacturing Skills Certificate

Schoolcraft program code # CRT.00337

The Advanced Manufacturing Skills Certificate introduces learners to advanced skills and techniques in manufacturing. It provides the basic skills needed for employment in today's highly technical manufacturing environments. These classes all apply to the Advanced Manufacturing Associate Degree.

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall Semester	
MET 102	Introduction to Materials Science.....	3
MFG 102	Basic Machining Processes	3
WELD 110	Introduction to Welding Basics for Fabrication	3
		9
	Winter Semester	
MFG 103	Basic Computer Numerical Control (CNC)	3
MFG 106	Basic Mastercam	3
QM 107	Quality Planning and Team Building	3
		9

PROGRAM TOTAL 18 CREDITS

Advanced Manufacturing Certificate

Schoolcraft program code # 1YC.00237

The Advanced Manufacturing Certificate addresses basic competency in skills needed for employment in today's highly technical manufacturing environments. The certificate is designed to train those new to manufacturing, but also serves to update the skills of seasoned manufacturing workers with the most current technology and techniques. These classes all apply to the Advanced Manufacturing Associate Degree.

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall Semester	
MET 102	Introduction to Materials Science.....	3
MFG 102	Basic Machining Processes	3
CAD 103	Engineering Graphics	3
WELD 115	Gas Metallic Arc Welding (G.M.A.W./M.I.G.).....	3
		12
	Winter Semester	
MFG 103	Basic Computer Numerical Control (CNC)	3
MFG 106	Basic Mastercam	3
QM 107	Quality Planning and Team Building	3
WELD 119	Gas Tungsten Inert Arc Welding (G.T.A.W./T.I.G.)....	3
		12
	Spring Session	
MFG 203	Advanced Computer Numerical Control (CNC).....	3
MFG 206	Advanced Mastercam	3
		6

PROGRAM TOTAL 30 CREDITS

MASSAGE THERAPY

Massage Therapy Associate Degree

Schoolcraft program code # AAS.00266

Massage therapy is the systematic manipulation of the soft tissues of the body for the purpose of increased circulation of blood and lymph, pain reduction, relaxation and restoration of health and well being of the client. The Massage Therapy Program is designed to prepare an individual in the field of soft tissue manipulation and is taught from a clinical perspective. Massage therapists may be employed in a private practice, a spa, or a variety of health care settings including hospitals and managed care centers, rehabilitation and sports medicine clinics and group and private practices.

The Massage Therapy Associate Degree is offered to meet the expanding needs of both the allied and complementary health care systems. Those students who are interested in additional education and wish to enter either field with a broad background and the ability to work with a diverse group of clients and practitioners will do well to add the general education courses. This associate degree program integrates traditional and non-traditional knowledge bases regarding massage therapy and bodywork. Course work includes six semesters of anatomy and physiology, a variety of massage and bodywork techniques and practices, and general education courses. Massage therapists who attain this degree may also plan to pursue a baccalaureate degree in a health or medical program, or an individualized area of study.

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

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR Fall Semester

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

Winter Semester

MAS 104	Intermediate Massage Applications.....	5
MAS 109	Systems of Support and Movement.....	5
MAS 110	Massage Therapy Student Clinic.....	2
		12

Spring/Summer Session

MAS 106	Palpatory and Assessment Skills.....	3.5
MAS 107	Organ Systems Anatomy and Physiology.....	4
MAS 111	Massage Therapy Internship.....	3
		10.5

SECOND YEAR Fall Semester

ENG 100	Communication Skills.....	3
CIS 120	Software Applications.....	3
BIOL 101	General Biology.....	4
POLS 105	Survey of American Government.....	3
		13

Winter Semester

ENG 116	Technical Writing.....	3
MATH 111	Applications—Utility of Math.....	4
HUM 106	Introduction to Art and Music.....	1
BIOL 236*	Human Anatomy and Physiology.....	5
		13

Spring/Summer Session

PSYCH 153	Human Relations.....	3
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PROGRAM TOTAL 63.5 CREDITS

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

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

Massage Therapy Certificate

Schoolcraft program code # 1YC. 00255

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

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

The massage therapy program is dedicated to advancing the science and art of massage therapy. Students who successfully complete all Program Courses qualify for a Certificate of Program Completion.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR Fall Semester

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

Winter Semester

MAS 104	Intermediate Massage Applications.....	5
MAS 109	Systems of Support and Movement.....	5
MAS 110	Massage Therapy Student Clinic.....	2
		12

Spring/Summer Session

MAS 106	Palpatory and Assessment Skills.....	3.5
MAS 107	Organ Systems Anatomy and Physiology.....	4
MAS 111	Massage Therapy Internship.....	3
		10.5

PROGRAM TOTAL 34.5 CREDITS

MEDICAL ASSISTING

Medical Assisting Certificate

Schoolcraft program code # 1YC.00026

The Medical Assisting Program is designed to prepare the student for entry-level employment as a Medical Assistant. The curriculum is designed to prepare the student to acquire knowledge, skills and behavior necessary for a competent entry-level medical assistant in a healthcare setting. 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 multi-skilled allied health professionals who perform a wide range of roles in physicians' offices, clinics and other healthcare settings. They are proficient in a multitude of clinical and administrative tasks and are widely viewed by doctors as vital members of the healthcare delivery team. Students are required to achieve a grade of 2.0 or better for all HIT and MA courses. Academic and medical assisting courses must be completed by the end of the winter semester to be eligible for placement in the Office Practicum offered in the spring. The Office Practicum is an externship that is structured to provide experiences in applying knowledge, in performing administrative and clinical procedures and in developing professional attitudes for interacting with other professionals and consumers in a healthcare facility. Students who successfully complete all Program Courses qualify for a Certificate of Program completion.

The Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Curriculum Review Board of the American Association of Medical Assistants Endowment (AAMAE). Graduates are eligible to take the Certified Medical Assistant (CMA) examination conducted by the certifying board of the American Association of Medical Assistants.

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

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES

BIOL 105	Basic Human Anatomy and Physiology	4
HIT 104	Medical Terminology	4
		8

FIRST YEAR Fall Semester

MA 134	Medical Insurance Coding	3
MA 140	Medical Office Procedures	3
MA 110	Phlebotomy	4
CIS 120	Software Applications	3
		13

Winter Semester

MA 174*	Medical Laboratory Techniques	4
MA 180*	Medical Office Clinical Procedures	4
MA 155	Medical Insurance Billing	3
		11

Spring Session

MA 195	Office Practicum	3
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PROGRAM TOTAL 35 CREDITS

* Courses open only to students who are officially admitted to the Medical Assisting program.

For more information about accreditation please contact:

Commission on Accreditation of Allied Health
Education Programs (CAAHEP)
1361 Park Street
Clearwater, FL 33756
727-210-2350
www.caahep.org

Medical Biller/Receptionist Skills Certificate

Schoolcraft program code # CRT.00350

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

CIS 120	Software Applications	3
HIT 104*	Medical Terminology	4
MA 134*	Medical Insurance Coding	3
		10

Winter Semester

MA 155*	Medical Insurance Billing	3
MA 140*	Medical Office Procedures	3
		6

PROGRAM TOTAL 16 CREDITS

* Courses apply to the Medical Assisting Program.

Phlebotomy Skills Certificate

Schoolcraft program code # CRT.00325

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

BIOL 105*	Basic Human Anatomy and Physiology	4
CIS 105	Computer Orientation	1
HIT 104*	Medical Terminology	4
		9

Winter Semester

MA 110*	Phlebotomy	4
MA 140*	Medical Office Procedures	3
		7

PROGRAM TOTAL 16 CREDITS

* Courses apply to the Medical Assisting Program.

All courses may be applied toward the Associate of General Studies Degree.

Physician Office Medical Transcription Skills Certificate

Schoolcraft program code # CRT.00330

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	Fall Semester	
BIOL 105*	Basic Human Anatomy and Physiology	4
HIT 104*	Medical Terminology	4
OIS 100	Keyboarding 1	2
		10
	Winter Semester	
HIT 114*	Pharmacology for Health Professionals	2
MA 140*	Medical Office Procedures	3
MT 108	Physician Office Transcription	2
		7
		PROGRAM TOTAL 17 CREDITS

* Courses apply to the Medical Assisting Program

All courses may be applied toward the Associate of General Studies Degree.



MEDICAL TRANSCRIPTION

Medical Transcription Certificate

Schoolcraft program code # 1YC.00029

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

In the program, students apply the following:

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

The courses designated as Medical Transcription are designed to give the student experience transcribing dictation from medical specialties such as Cardiology, Dermatology, Endocrinology, Gastroenterology, Neurology, Obstetrics and Gynecology, Ophthalmology, Orthopedics, Otorhinolaryngology, Pulmonary Medicine, Urology, Pathology, Radiology and other healthcare dictation. Students may elect to complete the program in three semesters (fall, winter, and spring) or on a part-time basis.

Students who successfully complete all Program Courses qualify for a Certificate of Program completion.

Upon completion of two-three years of experience in performing medical transcription in a variety of medical and surgical specialties, a qualified medical transcriptionist may take the certification examination offered by the American Association of Medical Transcription. Successful completion of the examination entitles an individual to be recognized as a Certified Medical Transcriptionist (CMT).

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

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES

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

Fall Semester

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

Winter Semester

HIT 114	Pharmacology for Health Professionals	2
HIT 113	Human Diseases	3
MT 157	Medical Transcription Seminar	1
MT 158	Hospital Medical Transcription 1	5
		11

Spring Session

MT 159	Hospital Medical Transcription 2	5
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PROGRAM TOTAL 36 CREDITS

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

METALLURGY AND MATERIALS SCIENCE

Metallurgy and Materials Science Associate Degree

Schoolcraft program code # AAS.00184

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

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

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR Fall Semester

MET 102	Introduction to Materials Science.....	3
MET 120*	Hazardous Materials Management.....	2
ENGR 100	Introduction to Engineering and Technology.....	3
MET 152	Structure and Properties Laboratory.....	3
MATH 113	Intermediate Algebra for College Students.....	4
HUM 106	Introduction to Art and Music.....	1
		16

Winter Semester

English	Select 1	3
ENG 100	Communication Skills	
ENG 101	English Composition 1	
CAD 103	Engineering Graphics	3
MET 114	Engineering Materials	3
BIOL 140	Scanning Electron Microscopy.....	4
MET 211	Physical Metallurgy Structures.....	3
		16

Spring/Summer Session

Social Science	Select 1	3
POLS 105	Survey of American Government	
PSYCH 153	Human Relations	
SOC 201	Principles of Sociology	
English	Select 1	3
ENG 102	English Composition 2	
ENG 106	Business English	
ENG 116	Technical Writing	
		6

SECOND YEAR Fall Semester

MET 215*	Mechanical Properties of Metals.....	3
MET 217*	Computer Applications in Materials Science.....	3
MFG 102	Basic Machining Processes	3
WELD 113	Shielded Metallic Arc Welding (S.M.A.W.).....	3
		12

Winter Semester

MET 248*	Electron Microscopy and Image Analysis.....	3
MET 280*	Special Problems in Materials Science.....	4
WELD 262	Welding Metallurgy	3
Elective	Select from the list below.....	3–4
		13–14

PROGRAM TOTAL 63–64 CREDITS

* These classes are offered on a rotational basis. Contact Metallurgy faculty for current and projected offerings.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

ELECTIVES

BUS 103	Organizing a Small Business.....	3
MET 160*	Composite Materials.....	3
MET 271*	Corrosion and Corrosion Analysis.....	4
MFG 105	Manufacturing Processes.....	4

Metallurgy—Applied Physical Certificate

Schoolcraft program code # 1YC.00124

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR Fall Semester

MET 102	Introduction to Materials Science.....	3
MFG 102	Basic Machining Processes	3
MET 120*	Hazardous Materials Management.....	2
MET 152	Structure and Properties Laboratory.....	3
		11

Winter Semester

MET 114	Engineering Materials	3
WELD 113	Shielded Metallic Arc Welding (S.M.A.W.).....	3
Elective**	MET.....	3
		9

SECOND YEAR Fall Semester

MET 211	Physical Metallurgy Structures.....	3
MET 215*	Mechanical Properties of Metals.....	3
		6

Winter Semester

MET 280*	Special Problems in Materials Science.....	4
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PROGRAM TOTAL 30 CREDITS

* These classes are offered on a rotational basis.

Contact Metallurgy faculty for current and projected offerings.

** Any Metallurgy course not previously taken.

Materials Science Post-Associate Certificate

Schoolcraft program code # PAC.00179

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

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

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR Fall Semester

MET 211	Physical Metallurgy Structures	3
MET 215*	Mechanical Properties of Metals	3
Elective	Select any applicable MET 200-level course	3-4
		9-10

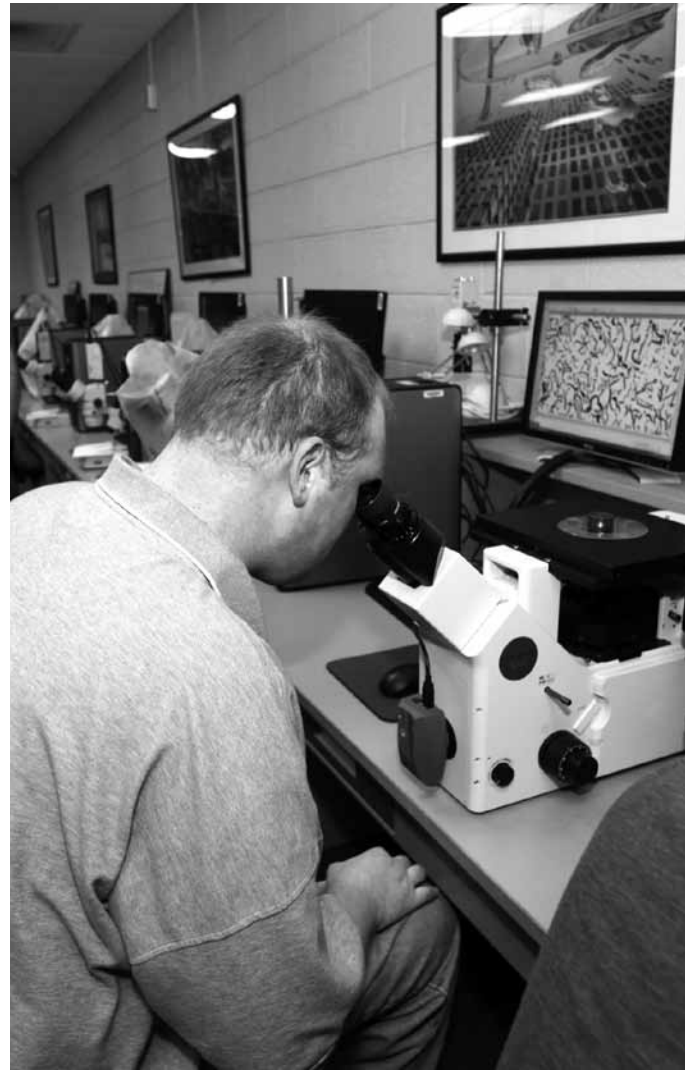
Winter Semester

MET 280*	Special Problems in Materials Science	4
Elective	Select any applicable MET 200-level course	3-4
		7-8

Completion of a minimum of 15 credit hours is required.

Courses can be taken through independent study.

* These classes are offered on a rotational basis. Contact Metallurgy faculty for current and projected offerings.



MUSIC

Music—Piano Teacher Certificate

Schoolcraft program code # 1YC.00115

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

In order to enter the Piano Teacher Certificate Program, each applicant must audition to demonstrate an appropriate level of musicianship.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	
Fall Semester	
MUSIC 131	Applied Music—Piano 1 2
MUSIC 143	Practice Teaching and Practicum in Piano Teaching 1 ...2
MUSIC 153	Music Theory 1..... 3
MUSIC 164	Music History 1—17th and 18th Centuries..... 3
MUSIC 201	Keyboard Skills for Piano Teachers 1 2
	12
Winter Semester	
MUSIC 132	Applied Music—Piano 2 2
MUSIC 144	Practice Teaching and Practicum in Piano Teaching 2 ...2
MUSIC 154	Music Theory 2..... 3
MUSIC 165	Music History 2—19th and 20th Centuries..... 3
MUSIC 247*	Piano Teaching Techniques and Materials 1 3
	13
SECOND YEAR	
Fall Semester	
MUSIC 137	Sight Singing and Ear Training 1 2
MUSIC 202	Keyboard Skills for Piano Teachers 2 2
MUSIC 231	Applied Music—Piano 3 2
MUSIC 243	Practice Teaching and Practicum in Piano Teaching 3 ...2
	8
Winter Semester	
MUSIC 138	Sight Singing and Ear Training 2 2
MUSIC 232	Applied Music—Piano 4 2
MUSIC 244	Practice Teaching and Practicum in Piano Teaching 4 ...2
MUSIC 257*	Piano Teaching Techniques and Materials 2 3
	9

PROGRAM TOTAL 42 CREDITS

* These classes are offered on a rotational basis.
Contact Liberal Arts office for current offerings.



Music Foundations Certificate

Schoolcraft program code # 1YC.00162

The Music Foundations Certificate is designed for students who want to build their musical abilities for personal growth and enjoyment. Students interested in transferring to a four-year institution as a music major or pursuing a career as a professional musician are advised to complete the Music Intermediate Certificate* with the guidance of the Music Department faculty.

Successful students completing this certificate will be able to notate all intervals, simple rhythmic patterns and basic chord progressions. Students will have a good general knowledge of musical styles from the 1600s to the present day; will have gained experience in performing publicly in ensembles; and will also have developed elementary training as soloists in voice or as instrumentalists.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	
Fall Semester	
MUSIC 104	Basic Materials in Music Theory 3
Music	Select 1 2
MUSIC 121	Class Piano 1
MUSIC 131	Applied Music—Piano 1
MUSIC 105	Music Appreciation 3
Music	Select 1 2
MUSIC 133	Applied Music—Voice 1
MUSIC 135	Applied Music—Instrumental 1
MUSIC 164	Music History 1—17th and 18th Centuries..... 3
Music*	Select 1 Music course not already taken from the list below minimum 1
	14
Winter Semester	
Music	Select 1 2
MUSIC 122**	Class Piano 2
MUSIC 132	Applied Music—Piano 2
Music	Select 1 2
MUSIC 134	Applied Music—Voice 2
MUSIC 136	Applied Music—Instrumental 2
HUM 106	Introduction to Art and Music 1
Electives	English Literature, Poetry or Art Appreciation Suggested..... 6
MUSIC 171	Music Technology 1 3
Music*	Select 1 Music course not already taken from the list below minimum 1
	15

PROGRAM TOTAL 29 CREDITS

* Number of credits may vary depending on the course selection.

MUSIC COURSES:

MUSIC 117**	Choir 1 2
MUSIC 118**	Choir 2 2
MUSIC 124	Chamber Singers 1 1
MUSIC 127	Chamber Singers 2 1
MUSIC 133	Applied Music—Voice 1 2
MUSIC 134	Applied Music—Voice 2 2
MUSIC 135	Applied Music—Instrumental 1 2
MUSIC 136	Applied Music—Instrumental 2 2
MUSIC 141	Wind Ensemble 1 2
MUSIC 142	Jazz Band 1 2
MUSIC 143	Practice Teaching and Practicum in Piano Teaching 1 ...2
MUSIC 168	Synthesizer Ensemble 1 3
MUSIC 169	Synthesizer Ensemble 2 3

** Requires Audition.

Music Intermediate Certificate

Schoolcraft program code # 1YC.00163

The Music Intermediate Certificate is designed for students who wish to transfer to a four-year institution as a music major and/or pursue music as a profession. Students in this program must consult with a Music Department faculty member before beginning this program. Faculty will provide information about expectations for appropriate course work and practice schedules for students intending to major in Music. Completion of this certificate does not automatically qualify students for admission to a four-year music major program:

The quality of the student's musicianship and auditions are key factors in admission decisions.

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

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

Students are advised to consult with Music Department Faculty before beginning classes in this certificate.

SAMPLE SCHEDULE OF COURSES**FIRST YEAR Fall Semester**

MUSIC 137	Sight Singing and Ear Training 1	2
MUSIC 153	Music Theory 1	3
Music	Select 1	2
	MUSIC 131***Applied Music—Piano 1	
	MUSIC 231***Applied Music—Piano 3	
Music	Select 1	2
	MUSIC 233***Applied Music—Voice 3	
	MUSIC 235***Applied Music—Instrumental 3	
Music*	Select 1 or 2 Music courses not already taken	
	from the list below	minimum 3
		12

Winter Semester

Music	Select 1	2
	MUSIC 132***Applied Music—Piano 2	
	MUSIC 232***Applied Music—Piano 4	
Music	Select 1	2
	MUSIC 234***Applied Music—Voice 4	
	MUSIC 236***Applied Music—Instrumental 4	
MUSIC 138	Sight Singing and Ear Training 2	2
MUSIC 165	Music History 2—	
	19th and 20th Centuries.....	3
MUSIC 154	Music Theory 2	3
Music*	Select 1 or 2 Music courses not already taken	
	from the list below	minimum 3
		15

Spring/Summer Session

Elective	English Literature, Poetry, or	
	Art Appreciation Suggested.....	3

PROGRAM TOTAL 30 CREDITS

* Number of credits may vary depending on the course selection.

*** Course selection dependent on courses taken in the Foundations certificate.

MUSIC COURSES:**(CHECK COURSE PREREQUISITES BEFORE MAKING SELECTION)**

MUSIC 117**	Choir 1	2
MUSIC 118**	Choir 2	2
MUSIC 217**	Choir 3	2
MUSIC 218**	Choir 4	2
MUSIC 124	Chamber Singers 1	1
MUSIC 127	Chamber Singers 2	1
MUSIC 224	Chamber Singers 3	1
MUSIC 227	Chamber Singers 4	1
MUSIC 133	Applied Music—Voice 1	2
MUSIC 134	Applied Music—Voice 2	2
MUSIC 233	Applied Music—Voice 3	2
MUSIC 234	Applied Music—Voice 4	2
MUSIC 135	Applied Music—Instrumental 1	2
MUSIC 136	Applied Music—Instrumental 2	2
MUSIC 235	Applied Music—Instrumental 3	2
MUSIC 236	Applied Music—Instrumental 4	2
MUSIC 141	Wind Ensemble 1	2
MUSIC 241	Wind Ensemble 2	2
MUSIC 142	Jazz Band 1	2
MUSIC 242	Jazz Band 2	2
MUSIC 168	Synthesizer Ensemble 1	3
MUSIC 169	Synthesizer Ensemble 2	3
MUSIC 268	Synthesizer Ensemble 3	3
MUSIC 269	Synthesizer Ensemble 4	3

** Requires Audition.



NURSING

Nursing Career Ladder Curriculum

The Nursing Career Ladder Curriculum (NCLC) is designed to improve nursing career mobility and provide seamless progression from Practical Nursing (PN) to Associate Degree Nursing (ADN) education. The NCLC contains both the PN and the ADN Programs. Following successful completion of the PN program requirements, students may apply for licensure as a Licensed Practical Nurse (LPN) and have the option of continuing into the ADN program without further application or admission requirements. Upon successful completion of the ADN program, graduates may apply for licensure as a Registered Nurse (RN).

Nursing—Registered Associate Degree (ADN)

Schoolcraft program code # AAS.00000

Nursing courses are open only to students who are officially admitted to the Nursing Career Ladder Curriculum.

The Associate Degree Nursing Program is approved by the Michigan Board of Nursing and provides advanced nursing theory and clinical practice in caring for adults, children and families to prepare graduates for entry-level positions in hospitals, long-term care facilities, medical offices, home health and other community settings.

Students who satisfactorily complete the Associate Degree Nursing program qualify for an Associate Degree in Nursing and are eligible to apply to take the National Council Licensure Examination-Registered Nurse (NCLEX-RN) as a step in obtaining licensure as a Registered Nurse (RN).

Schoolcraft College Nursing Career Ladder Curriculum has pre-admission requirements that are reviewed annually. It is essential to contact the Admissions and Enrollment Center for a current copy of prerequisites to enter the program.

Courses must be taken in sequence. A minimum grade of 2.0 in each nursing course is required for progression to the next course. Academic courses other than nursing must be finished by the completion of the nursing courses. Computer lab use is required in this program. See “Academic Computing Labs” in this catalog for policy requirements. Students must furnish and maintain uniforms and supplies as required by the department and clinical facilities.

This program is offered at the Livonia Campus.

Students are admitted once a year, at the opening of the fall semester.

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



SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES AND SUPPORTIVE COURSES*

BIOL 236**	Human Anatomy and Physiology	5
PSYCH 201	Introductory Psychology	4
NURS 102	Nursing Informatics.....	1
		10

FIRST YEAR

BIOL 114	Basic Human Nutrition.....	1
NURS 104	Pharmacology for Nurses	3
NURS 110	Fundamentals of Nursing	9
PSYCH 239	Abnormal Psychology	3
		16

Winter Semester

NURS 124	Medical Nursing	5
NURS 125	Surgical Nursing	5
ENG 101	English Composition 1	3
		13

Spring Session

NURS 128	Maternal-Child Nursing 1.....	5
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Optional Summer Session

NURS 139	Advanced Concepts in Practical Nursing.....	3
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SECOND YEAR Fall Semester

NURS 245	Advanced Medical-Surgical Nursing	5
NURS 246	Psychiatric Mental Health Nursing	4
MATH 113	Intermediate Algebra for College Students	4
		13

Winter Semester

NURS 248	Maternal-Child Nursing 2.....	5
NURS 259	Advanced Concepts in Registered Nursing.....	5
HUM 106	Introduction to Art and Music	1
ENG 102	English Composition 2	3
		14

PROGRAM TOTAL 71–74 CREDITS

* COLLS 130 Applied Learning Theory for Nursing Majors is a suggested elective for pre-nursing students to develop study skills and success strategies.

** Students who may transfer to a baccalaureate program should elect the BIOL 237–238 sequence. BIOL 101 is a prerequisite to BIOL 236 and the BIOL 237–238 sequence.

For more information on MI-Board of Nursing approval and licensure please contact:

State of Michigan Department of Community Health
Bureau of Health Professionals
Board of Nursing
P.O. Box 30670
Lansing, MI 48909
www.michigan.gov

Advanced Placement—Mobility Option for LPNs

The Associate Degree Nursing (ADN) program offers an advanced placement option for Licensed Practical Nurses (LPNs) who are interested in becoming Registered Nurses (RNs). When program space is available, LPN candidates are placed in the ADN program sequence based on a thorough review of their academic record and nursing experience/employment background. Students interested in this option should contact the Nursing Office at 734-462-4400, ext. 5150 for detailed admission requirement and application information.

Nursing — Licensed Practical Certificate (Practical Nursing Program)

Schoolcraft program code # 1YC.00017

Nursing courses are open only to students who are officially admitted to the Nursing Career Ladder Curriculum.

The Practical Nursing Program is approved by the Michigan Board of Nursing and provides basic nursing theory and clinical practice in caring for adults, children and families to prepare graduates for entry-level positions in hospitals, long-term care facilities, medical offices, home health and other community settings.

Students who satisfactorily complete the Practical Nursing program qualify for a Certificate of Program Completion and are eligible to apply to take the National Council Licensure Examination-Practical Nurse (NCLEX-PN) as a step in obtaining licensure as a Licensed Practical Nurse (LPN).

Schoolcraft College Nursing Career Ladder Curriculum has pre-admission requirements that are reviewed annually. It is essential to contact the Admissions and Enrollment Center for a current copy of prerequisites to enter the program.

Courses must be taken in sequence. A minimum grade of 2.0 in each nursing course is required for progression to the next course. Academic courses other than nursing must be finished by the completion of the nursing courses. Computer lab use is required in this program. See "Academic Computing Labs" in this catalog for policy requirements. Students must furnish and maintain uniforms and supplies as required by the department and clinical facilities.

This program is offered at the Livonia Campus.

Following successful completion of the PN program, students may continue into the ADN program without further application or admission requirements.

Students are admitted once a year, at the opening of the fall semester.

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

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES AND SUPPORTIVE COURSES*

BIOL 236**	Human Anatomy and Physiology	5
PSYCH 201	Introductory Psychology	4
NURS 102	Nursing Informatics.....	1
		10

Fall Semester

BIOL 114	Basic Human Nutrition.....	1
NURS 104	Pharmacology for Nurses	3
NURS 110	Fundamentals of Nursing	9
PSYCH 239	Abnormal Psychology	3
		16

Winter Semester

NURS 124	Medical Nursing	5
NURS 125	Surgical Nursing	5
ENG 101	English Composition 1	3
		13

Spring Session

NURS 128	Maternal-Child Nursing 1.....	5
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Summer Session

NURS 139	Advanced Concepts in Practical Nursing.....	3
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PROGRAM TOTAL 47 CREDITS

* COLLS 130 Applied Learning Theory for Nursing Majors is a suggested elective for pre-nursing students to develop study skills and success strategies.

** BIOL 101 is a prerequisite to BIOL 236.

For more information on MI-Board of Nursing approval and licensure please contact:

State of Michigan Department of Community Health
Bureau of Health Professionals
Board of Nursing
P.O. Box 30670
Lansing, MI 48909
www.michigan.gov

Nursing — Nursing Assistant Training Program Skills Certificate

Schoolcraft program code # CRT.00321

The Nursing Assistant course is open only to students who are officially admitted to the Nursing Assistant Program.

This curriculum is designed to prepare the student for an entry-level nursing assistant position with potential for employment opportunities primarily in extended care facilities. Classroom lectures, hands-on practice of skills as well as supervised experience in an extended care facility are provided. Students must furnish and maintain uniforms, lab coats or other appropriate apparel as required by the institution to which they are assigned for clinical instruction. This program meets federal and state requirements and is offered at the Livonia campus. Theory and practice in nursing support services prepare students for entry-level positions primarily in extended care facilities with some application to hospitals, clinics, doctors' offices and patients' homes.

Students who satisfactorily complete NATP 110 are eligible to apply to write the State of Michigan written and clinical skills certification evaluations. Graduates of the Nursing Assistant Training Program qualify for a Certificate of Completion and may wish to consider completing a General Studies Associate Degree or the Practical Nursing (PN) or Associate Degree Nursing (ADN) program at Schoolcraft College.

The Nursing Assistant Training Program has pre-admission requirements that are reviewed each year. It is essential to contact the Admissions and Enrollment Center for a current copy of the prerequisites to enter the program. Students are admitted several times each year.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR Fall Semester

NATP 110	Nursing Assistant Preparation	10
BIOL 236*	Human Anatomy and Physiology	5
HUM 106	Introduction to Art and Music	1

PROGRAM TOTAL 16 CREDITS

* Students who may transfer to a baccalaureate program should elect the BIOL 237–238 sequence. BIOL 101 is a prerequisite to BIOL 236 and the BIOL 237–238 sequence.

All courses may be applied toward the Associates of General Studies Degree.

OFFICE INFORMATION SYSTEMS

Office Administration Associate Degree

Schoolcraft program code # AAS.00133

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

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

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

SAMPLE SCHEDULE OF COURSES

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 1	3	
BUS 101	Introduction to Business	3	
OIS 105	Office Communications—Editing Skills	3	
		14	
		Winter Semester	
CIS 120	Software Applications	3	
OIS 255	Office Procedures	2	
OIS 165	Microsoft Word for Windows	3	
ENG 106	Business English	3	
MATH 101	Business Mathematics	3	
		14	
		Spring/Summer Session	
COMA 103	Fundamentals of Speech	3	
SECOND YEAR		Fall Semester	
OIS 260	Office Administration	3	
CIS 180	Spreadsheet Applications—Current Software	3	
OIS 185	Business Presentation 1—Fundamental Concepts	3	
ACCT 201	Principles of Accounting 1	4	
CIS 225	Database Management Systems	3	
		16	
		Winter Semester	
CIS 122	Microsoft Outlook	2	
OIS 265	Advanced Microsoft Word for Windows	3	
Science*	Select any General Education Science course	4	
CIS 215	Advanced Software Applications	3	
PSYCH 153	Human Relations	3	
		15	

PROGRAM TOTAL 62 CREDITS

* Number of credits may be higher dependent on the General Education Science course selected.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may be higher dependent on the course selection.

Office Specialist Certificate

Schoolcraft program code # 1YC.00166

This certificate program focuses on office application software for today's administrative assistant. Computers and software applications are the center of the technological revolution taking place in today's business offices.

The student enrolled in the Office Specialist's Program will be prepared to take on broader and more challenging responsibilities in the business world. Successful completion of these courses helps to prepare students for the Microsoft Office Specialist certification exam.

Individuals who successfully complete this program will be prepared to obtain employment as administrative or executive secretaries, software specialists, word processing supervisors and managers.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR		Fall Semester	
OIS 100	Keyboarding 1	2	
OIS 102	Keyboarding 2	2	
OIS 105	Office Communications—Editing Skills	3	
CIS 120	Software Applications	3	
OIS 195	Time and Project Management	1	
		11	
		Winter Semester	
OIS 165	Microsoft Word for Windows	3	
CIS 122	Microsoft Outlook	2	
OIS 255	Office Procedures	2	
CIS 180	Spreadsheet Applications—Current Software	3	
CIS 215	Advanced Software Applications	3	
		13	
SECOND YEAR		Fall Semester	
OIS 185	Business Presentation 1—Fundamental Concepts	3	
OIS 265	Advanced Microsoft Word for Windows	3	
		6	

PROGRAM TOTAL 30 CREDITS



Office Specialist Skills Certificate

Schoolcraft program code # CRT.00370

This program is designed to help prepare students for today's technologically driven work environment. The program combines instruction in the most commonly used computer software packages as well as the critical areas of business communication and time and project management. Individuals who are already employed may find that the certificate increases their opportunity for promotion.

This certificate can be used as a building block toward the achievement of the Office Specialist Certificate or the Associate Degree in Applied Science in Office Administration. Successful completion of these courses will also provide the foundation for the Microsoft Office Specialist certification examination.

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

SAMPLE SCHEDULE OF COURSES**FIRST YEAR Fall Semester**

CIS 105	Computer Orientation.....	1
OIS 100*	Keyboarding 1	2
OIS 195*	Time and Project Management.....	1
OIS 105*	Office Communication—Editing Skills	3
CIS 120*	Software Applications	3
		10

Winter Semester

OIS 165*	Microsoft Word for Windows.....	3
CIS 122*	Microsoft Outlook	2
Elective	Select from the list below	2-3
		7-8

PROGRAM TOTAL 17–18 CREDITS**ELECTIVES**

BUS 204	Personal Finance.....	3
CIS 180*	Spreadsheet Applications—Current Software.....	3
HDS 110	Career Decision Making.....	2
OIS 185*	Business Presentation 1—Fundamental Concepts	3
OIS 255*	Office Procedures	2
OIS 265*	Advanced Microsoft Word for Windows.....	3

* Courses are part of the Office Specialist Certificate and/or the Office Administration Associate Degree.

All courses may be applied toward the Associate of General Studies Degree.



SOUND RECORDING TECHNOLOGY

Sound Recording Technology Associate Degree

Schoolcraft program code # AAS.00244

The Sound Recording Technology Associate Degree Program is designed to prepare the student for transfer to institutions offering a bachelor's degree in Recording Engineering or for apprenticeships at recording studios and various media venues. The program will teach the student the fundamentals and techniques relative to live concert and studio recording.

Understanding the musical perspective is an important focus of the program. The required music courses will assist the recording engineer in better understanding what the performing musician is experiencing and will in turn improve the recording outcome.

Technological changes directly related to the recording industry are frequently introduced. The program is committed to staying current and will help the student understand new directions in technology.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR Fall Semester

HUM 106	Introduction to Art and Music	1
MUSIC 104	Basic Materials in Music Theory	3
MUSIC 121	Class Piano 1	2
SRT 121	Basic Sound and Recording Techniques 1	3
MATH 113	Intermediate Algebra for College Students	4
ENG 101	English Composition 1	3
		16

Winter Semester

Music	Select 1	2–3
MUSIC 117	Choir 1	
MUSIC 168	Synthesizer Ensemble 1	
MUSIC 141	Wind Ensemble 1	
SRT 110	Keyboard Skills for Recording Engineers.....	1
SRT 122	Basic Sound and Recording Techniques 2	3
PHYS 123	Applied Physics	5
SRT 150	Ear Training for Recording Engineers.....	2
		13–14

Spring/Summer Session

ENG 102	English Composition 2	3
COMA 103	Fundamentals of Speech.....	3
		6

SECOND YEAR Fall Semester

MUSIC 171	Music Technology 1	3
SRT 221	Advanced Audio Production 1.....	3
MUSIC 137	Sight Singing and Ear Training 1	2
ELECT 131	Basic Measurement and Reporting Skills.....	3
Social Science	Select 1	3–4
PSYCH 153	Human Relations	
PSYCH 201	Introductory Psychology	
		14–15

Winter Semester

MUSIC 138	Sight Singing and Ear Training 2	2
Music	Select 1	3
MUSIC 105	Music Appreciation	
MUSIC 149	Popular Music Culture in America	
MUSIC 172	Music Technology 2	3
SRT 222	Advanced Audio Production 2.....	3
GEOG 133	World Regional Geography.....	4
		15

PROGRAM TOTAL 64–66 CREDITS

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

Sound Recording Technology Certificate

Schoolcraft program code # 1YC.00144

The Sound Recording Technology Certificate will provide the student with skills important to the apprentice at recording studios and for quality home studio production. The program will prepare the student to understand the functions of audio signals and the sound reproduction equipment. The program will also acquaint the student with emerging audio formats.

Listening in the manner of a recording engineer will be stressed as well as some fundamental music skills important to the musician's point of view.

Technological changes directly related to the recording industry are frequently introduced. The program is committed to staying current and will help the student understand new directions in technology.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR Fall Semester

MUSIC 104	Basic Materials in Music Theory	3
MUSIC 105	Music Appreciation	3
MUSIC 121	Class Piano 1	2
SRT 121	Basic Sound and Recording Techniques 1	3
ELECT 131	Basic Measurement and Reporting Skills.....	3
		14

Winter Semester

SRT 110	Keyboard Skills for Recording Engineers.....	1
MUSIC 171	Music Technology 1	3
MUSIC 172	Music Technology 2	3
SRT 122	Basic Sound and Recording Techniques 2	3
SRT 150	Ear Training for Recording Engineers.....	2
		12

Spring Session

SRT 221	Advanced Audio Production 1.....	3
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Summer Session

SRT 222	Advanced Audio Production 2.....	3
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PROGRAM TOTAL 32 CREDITS

THEATRE

Theatre Program Associate Degree

Schoolcraft program code # AA.00042

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

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

Note: The Theatre Department has adopted a dinner-theatre format for production with two plays produced annually.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR		Fall Semester	
ENG 101	English Composition 1	3	
BIOL 101	General Biology	4	
THEA 120	Theatre Activities 1	1	
THEA 208	Acting 1	3	
THEA 101*	Introduction to Theatre	3	
		14	
		Winter Semester	
ENG 102	English Composition 2	3	
THEA 121	Theatre Activities 2	1	
THEA 207	Stagecraft and Lighting	3	
THEA 209	Acting 2	3	
MATH	Select any four-credit 100-level course	4	
		14	
SECOND YEAR		Fall Semester	
THEA 220	Theatre Activities 3	1	
COMA 103	Fundamentals of Speech	3	
HIST 153	Contemporary America—U.S. History	3	
ENG 248	Introduction to Literature—Shakespeare	3	
POLS 105	Survey of American Government	3	
THEA 231*	History of Theatre 1	3	
		16	
		Winter Semester	
THEA 221	Theatre Activities 4	1	
THEA 241*	Oral Interpretation of Literature	3	
ENG 245	Introduction to Literature—Drama	3	
PSYCH 201	Introductory Psychology	4	
THEA 232*	History of Theatre 2	3	
THEA 204	Stage Makeup	2	
		16	
			PROGRAM TOTAL 60 CREDITS

* These classes are offered on a rotational basis.

Contact Liberal Arts office for current offerings.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.



WELDING TECHNOLOGY

Welding—Joining Technology Associate Degree

Schoolcraft program code #AAS.00082

There is an ever increasing need for persons today that possess skills, both in welding and metallurgy. Materials of industry and new technology require highly skilled persons that understand material sciences, metallurgy, and the joining processes used to produce optimum quality fabrications. The quality conscience industry of today demands certified people that can perform tasks from the simplest, to more complex technical applications. The courses selected in this program will give the student the required skills needed to perform, both hands on and analytical tasks required by modern industrial technology.

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	
Fall Semester	
ENG 100	Communication Skills 3
MET 102	Introduction to Materials Science..... 3
WELD 113	Shielded Metallic Arc Welding (S.M.A.W.)..... 3
WELD 115	Gas Metallic Arc Welding (G.M.A.W./M.I.G.) 3
HUM 106	Introduction to Art and Music 1
	13
Winter Semester	
ENG 106	Business English..... 3
Math	Select 1 3–4
MATH 101	Business Mathematics
MATH 111	Applications—Utility of Math
WELD 119	Gas Tungsten Inert Arc Welding (G.T.A.W./T.I.G.).... 3
WELD 120	Advanced Processes—Stick Electrode and M.I.G. Welding..... 3
	12–13
Spring Session	
WELD 205	Welder's Print Reading 2
Social Science	Select 1 3
PSYCH 153	Human Relations (recommended)
POLS 105	Survey of American Government
SOC 201	Principles of Sociology
	5
Summer Session	
WELD 206	Welding Inspection and Qualification 2
SECOND YEAR	
Fall Semester	
MFG 102	Basic Machining Processes 3
MET 114	Engineering Materials 3
MET 152	Structure and Properties Laboratory..... 3
WELD 130	Advanced Processes—Gas Tungsten 3
	12
Winter Semester	
WELD 118	Adhesive Joining Technology 4
WELD 262	Welding Metallurgy 3
Science*	Select any General Education Science course..... 3–5
MET 211	Physical Metallurgy Structures..... 3
	13–15
Spring Session	
WELD 210-214**	Exam Preparation—Select from the list below 3
Summer Session	
WELD 223	Fabrication..... 4
	PROGRAM TOTAL 64–67 CREDITS

ELECTIVE (OPTIONAL)

WELD 111 Project Mathematics 4

* Number of credits may vary depending on the General Education Science course selection.

**** EXAM PREPARATION: (SELECT ONE)**

WELD 210 Preparation for Welder Certification in Shielded Metallic Arc Welding (S.M.A.W.)..... 3

WELD 211 Preparation for Welder Certification in Gas Metallic Arc Welding (G.M.A.W./M.I.G.) 3

WELD 212 Preparation for Welder Certification in G.T.A.W./T.I.G.... 3

WELD 214 Preparation for Welder Certification in Pipe Welding.... 3

Exams will also be provided on an individual basis.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

Welding—Fabrication Certificate

Schoolcraft program code # 1YC.00127

The Welding-Fabrication Program prepares students for employment under classifications such as welders and/or industrial fabrications. The program includes joining materials, using weldments, special techniques, equipment and other recognized fastening methods. Students acquire skills in the broad categories of welding and fabrication with added emphasis upon support technical subjects.

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

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

SAMPLE SCHEDULE OF COURSES

FIRST YEAR	
Fall Semester	
WELD 113	Shielded Metallic Arc Welding (S.M.A.W.)..... 3
WELD 115	Gas Metallic Arc Welding (G.M.A.W./M.I.G.) 3
WELD 119	Gas Tungsten Inert Arc Welding (G.T.A.W./T.I.G.).... 3
	9
Winter Semester	
WELD 111	Project Mathematics 4
WELD 120	Advanced Processes—Stick Electrode and M.I.G. Welding..... 3
WELD 130	Advanced Processes—Gas Tungsten 3
MET 102	Introduction to Materials Science..... 3
	13
Spring Session	
WELD 205	Welder's Print Reading..... 2
WELD 210-214*	Exam Preparation 3
	5
Summer Session	
WELD 206	Welding Inspection and Qualification 2
WELD 223	Fabrication..... 4
	6

PROGRAM TOTAL 33 CREDITS

***EXAM PREPARATION: (SELECT ONE)**

WELD 210 Preparation for Welder Certification in Shielded Metallic Arc Welding (S.M.A.W.)..... 3

WELD 211 Preparation for Welder Certification in Gas Metallic Arc Welding (G.M.A.W./M.I.G.) 3

WELD 212 Preparation for Welder Certification in G.T.A.W./T.I.G.... 3

WELD 214 Preparation for Welder Certification in Pipe Welding... 3

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

DISCOVER

Courses



Schoolcraft
College

Course Formats

Schoolcraft College provides students a variety of choices for earning credit. In addition to traditional in-class instruction, students can register for online courses, Open Entry/Open Exit courses or hybrid courses.

Online Courses

McDowell Center Room 305
734-462-4532
dl@schoolcraft.edu
www.schoolcraft.edu/dl

Students may earn associate degrees in many areas completely online.

Schoolcraft College Online brings a variety of courses to students in various disciplines. The convenience and accessibility of online courses make it easier than ever to learn more flexibly, perhaps while you earn and enhance your career prospects. Online course work takes place in a virtual environment, including frequent communication and interaction with the faculty and other students.

The keys to success in online courses are motivation, self-discipline, a working knowledge of computers and the Internet and effective time management.

Distance learning can be an effective solution for individuals who want to take college classes but, for various reasons, are better served by flexible online options due to life circumstances, learning preference, or other commitments. These classes expand learning opportunities while allowing students to balance educational demands with their work, travel or family. They allow study wherever and whenever a busy schedule permits.

Students who are admitted to Schoolcraft College can register for distance learning courses as they would for any credit course. Distance learning courses are a convenient way to earn regular college credit toward the goal of earning a degree, gaining a skill required for a job, or expanding knowledge. These courses tend to be highly interactive; they are not independent study courses.

Students are expected to keep up with weekly assignments; regular and active participation in online discussions is required. Some online classes require proctored exams. Textbooks are required for each course.

All Schoolcraft College online courses are offered through the Internet. For system hardware and software requirements, refer to www.schoolcraft.edu/sysreq.

Open Entry/Open Exit Courses

McDowell Center Room 305
734-462-4588
oeoe@schoolcraft.edu
www.schoolcraft.edu/oeoe

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

Students can complete these self-paced courses at home, in the college's computer labs, or in the OE/OE lab where instructors are available for help during posted hours. They may submit homework via e-mail, through Blackboard, or by using the designated OE/OE drop-off area. At least one on-campus assessment is required. Students may register for OE/OE classes before the semester starts, or up to the seventh week of the fall and winter semesters. Spring and Summer courses are offered in a seven- or twelve-week format. All coursework must be completed by semester's end. All students registering for the OE/OE program must attend an orientation before beginning coursework.

Hybrid Courses

734-462-4525
hybrid@schoolcraft.edu
www.schoolcraft.edu/hybrid

Hybrid classes combine some in-class instruction with flexible online learning. Students attend classes on campus for presentations, laboratory work and discussions, while reading assignments, research, and some projects are completed online. Students benefit from the flexibility of online delivery along with the personal interactions of a classroom setting.

On-campus classroom sessions for each semester are found at www.schoolcraft.edu/hybrid. Refer to www.schoolcraft.edu/sysreq for hardware and software requirements.

Independent Learning

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

Schoolcraft Scholars Honors Program

734-462-4400, ext. 5156
honors@schoolcraft.edu
www.schoolcraft.edu/scholars

Schoolcraft Scholars, the college honors program, links academic achievement with service to the community. Students accepted into the program complete six honors courses and 100 hours of service learning. Tuition is awarded for all honors courses as long as an honor student maintains an overall 3.5 grade-point average.

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

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

Service Learning Endorsement

734-462-4400 ext. 5516
servicelearning@schoolcraft.edu
www.schoolcraft.edu/scholars/community.asp

Linking academic courses to volunteerism benefits both students and the community. In service learning courses, students master course objectives, apply new learning skills through guided service opportunities and make a difference in the world. Volunteering with a community organization, unlike other types of homework assignments, helps students learn through real-world experience. To receive a Service Learning Endorsement, students must complete a minimum of 15 credit hours of classes designated as Academic Service Learning courses taken after spring semester 2008. In a qualified Academic Service Learning class, students spend a minimum of 15 hours of course time during the semester preparing for service, doing work with one or more community organizations, and assessing learning outcomes. This is an advantageous endorsement for students pursuing a service profession or interested in applying skills as they learn.

Global Endorsement

734-462-4400 ext. 5271
international@schoolcraft.edu
www.schoolcraft.edu/scii

Students who understand the global forces shaping their lives and the lives of people worldwide are better positioned for success in the 21st Century. At Schoolcraft, students have the opportunity to gain this international perspective by earning a Global Endorsement. This program, overseen by the Schoolcraft College International Institute, requires participating students to complete a minimum of 15 credit hours of classes designated as Internationalized and taken Fall 2006 or after at Schoolcraft College. Such classes contain at least two weeks of global or multicultural content. Internationalized sections are available for a growing number of courses, including those required in various programs. The Global Endorsement is an attractive option for students pursuing programs where a global perspective is an asset.



Course Descriptions

KEY TO READING COURSE DESCRIPTIONS

SAMPLE COURSE LISTING:

Department	Course Name	Lecture Hours/Week	Lab Hours/Week	Credit Hours
MAS 102	Basic Massage Applications (4 - 4)	6	Cr. Hrs.	
	Prerequisite: None.			
	Corequisite: MAS 101 and MAS 103.			
Course required before taking this class	Course to be taken in the same semester			
Course Description	This class provides a solid base for the preparation and performance of massage in a wellness setting on healthy individuals. The tools of the trade, from tables and supplies through massage manipulations and techniques, are presented and practiced, with an emphasis on safe and effective applications and body mechanics.			

Course offerings subject to change.
See www.schoolcraft.edu for updates.

Courses are numbered as follows:

1. Courses numbered from 001 to 099 are considered pre-college, may not be transferable, and do not apply toward an Associate Degree.
2. Courses numbered from 100 to 199 are primarily freshman-level courses.
3. Courses numbered 200 to 299 are primarily sophomore-level courses.
4. Final exams are required in all credit courses.
5. Many courses have a prerequisite skill or lower level course necessary to complete before attempting more complex material. For maximum success, complete prerequisites before taking the actual course.
6. Some courses also list a corequisite course that should be taken in the same semester.

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Allied Health Education	AHE	82
Anthropology	ANTH	82
Arabic	ARB	82
Art and Design	ART	83–84
Aviation Management	AVM	84–85
Biology	BIOL	85–87
Biomedical Engineering Technology	BMET	87–88
Business	BUS	88–89
Chemistry	CHEM	89–90
Child and Family Services	CCD	90–92
Chinese	CHIN	92
College and Beyond	CAB	92
Collegiate Skills	COLLS	92–93
Communication Arts	COMA	93
Computer Aided Design	CAD	93–94
Computer Graphics Technology	CGT	94–98
Computer Information Systems	CIS	98–101
Computer Service	COMPS	101
Correctional Science	COR	101
Criminal Justice	CJ	101–102
Culinary Arts	CAP	102–104
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Engineering	ENGR	108
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Fire Technology	FIRE	111–112

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Geology	GEOL	114
German	GER	114
Health Information Technology	HIT	114–116
History	HIST	117
Homeland Security	HS	117–118
Human Development Services	HDS	118
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ACCOUNTING

Dean: William J. Dunbar, Jr., MS

Instructors: Professor LaVonda Ramey, MBA, CPA

Associate Professor Michelle Randall, MBA, CPA

Adjunct Faculty

ACCT 103 Introduction to Accounting (4-0) 4 Cr. Hrs.

Prerequisite: None.

In this course you will learn about the basic accounting cycle for a sole proprietorship in the service or merchandising industry. You will account for cash, sales, purchases, payroll and payroll taxes.

ACCT 138 Income Tax Preparation (2-0) 2 Cr. Hrs.

Prerequisite: None.

This is an introductory course in Federal and Michigan individual income tax laws and return preparation. Special emphasis will be given to Federal Tax Form 1040 with accompanying Schedule A (itemized deductions). In addition, the course will include preparation of Michigan Tax Form MI-1040 and City of Detroit returns.

ACCT 139 Michigan Taxes (2-0) 2 Cr. Hrs.

Prerequisite: None.

This is an introductory course in Michigan personal and business taxes. In addition, the individual income taxes of several Michigan cities will be covered. The course provides both non-accounting and accounting majors with knowledge of the Michigan tax structure. Special emphasis will be on regulations and tax requirements for income taxes, sales and use taxes, unemployment taxes, business tax and real and personal property taxes. Students will prepare tax returns while reviewing tax planning strategies.

ACCT 201 Principles of Accounting 1 (4-0) 4 Cr. Hrs.

Prerequisite: None.

In this course you will learn the principles of accounting with emphasis on the accounting cycle for a sole proprietorship in the service and merchandising business. You will apply internal controls to an accounting system, account for cash, accounts receivable, bad debts, inventories, long lived assets, current liabilities and payroll. In addition, you will demonstrate how to account for partnerships.

ACCT 202 Principles of Accounting 2 (4-0) 4 Cr. Hrs.

Prerequisite: ACCT 201.

This course is a continuation of Accounting 201 expanding your exposure to accounting principles, financial statements, methods and applications. In this course you will focus on accounting for corporations, stockholder's equity, liabilities and investments. You will prepare the statement of cash flows. You will analyze and interpret financial statements and other accounting information used in making decisions. You will also explore managerial accounting and its applications in planning and controlling costs. You will utilize Web based tools and spreadsheet software for some of the assignments in this course.

ACCT 221 Intermediate Accounting 1 (4-0) 4 Cr. Hrs.

Prerequisite: ACCT 202.

This course further explores these accounting principles used by publicly traded companies, including the methods used to measure and report the financial transactions of corporations. The course focuses on the valuation of assets, such as cash and receivables, investments, inventory and operational assets, but will also include preparation of financial statements, review of financial disclosures and measurement of income and time value of money concepts.

ACCT 222 Intermediate Accounting 2 (4-0) 4 Cr. Hrs.

Prerequisite: ACCT 202 required.

In this course you will learn the current accounting methods for liabilities, bond amortization, leases, pensions, income taxes, shareholders' equity and stock based compensation. You will prepare the statement of cash flows and statement of shareholders' equity. In addition, you will learn to allocate income tax expense and compute earnings per share information.

ACCT 226 Cost Accounting (4-0) 4 Cr. Hrs.

Prerequisite: ACCT 202 and CIS 180. ACCT 260 recommended.

Concepts of cost accounting as a management tool for control and planning will be introduced. Actual and standard cost methods as applied to job and process cost systems; accounting for materials, labor, and manufacturing overhead; direct costing method; and cost accounting projects will be covered.

ACCT 238 Federal Tax Accounting (4-0) 4 Cr. Hrs.

Prerequisite: ACCT 201 recommended by accounting faculty.

Federal income tax laws with emphasis on the regulations that relate to individuals and small business including state and local tax implications will be addressed. Preparation of tax forms and introduction to tax research are also addressed in this course.

ACCT 260 Computerized Accounting Using Peachtree (3-0) 3 Cr. Hrs.

Prerequisite: ACCT 201.

In this course you will gain hands on experience in setting up an accounting information system for a service, merchandising and manufacturing business using Peachtree software. This course will apply the financial accounting concepts learned in your previous courses using Peachtree software. Using the software you will create vendor, customer and employee accounts, record transactions in special purpose journals and the general ledger, create invoices, process payroll, create and print reports and perform bank reconciliations.

ACCT 262 Payroll Accounting (3-0) 3 Cr. Hrs.

Prerequisite: ACCT 201 and CIS 120 or knowledge of Excel and Word.

In this course you will gain first-hand experience in calculating payroll, completing payroll taxes, and preparing payroll records and reports. You will cover the various phases of the Social Security Taxes, Federal Income Taxes, State Income Taxes and Unemployment Compensation Insurance. You will complete a manual and computerized payroll simulation.

ACCT 263 Computerized Accounting Using QuickBooks (3-0) 3 Cr. Hrs.*Prerequisite:* ACCT 103 or ACCT 201 and CIS 120.

The student will complete a comprehensive computerized software package for a small business company. This package shall include setting up a company, entering transactions which include accounts receivables, sales accounts payable, purchases, cash receipts and cash disbursements. The student will prepare bank reconciliations and financial statements. The student will generate payroll entries and print payroll tax returns and payroll reports. Outside lab time is required.

ALLIED HEALTH EDUCATION

Dean: William J. Dunbar, Jr., MS

Assistant Dean: Todd Scott, PhD

Instructors: Adjunct Faculty

AHE 101 Introduction to Healthcare (1-0) 1 Cr. Hr.*Prerequisite:* None.

This course provides a comprehensive review of the healthcare industry. Trends and changes related to healthcare facilities such as acute care hospitals, specialty hospitals, nursing homes, health maintenance organizations, hospice and home healthcare will be covered. The course will also deal with the impact and use of computers in the delivery and documentation of healthcare and the role of the medical professional in response to the healthcare delivery system.

ANTHROPOLOGY

Dean: Cheryl D. Hawkins, MS

Assistant Dean of Sciences

Instructors: Associate Professor Josselyn Moore, MA
Adjunct Faculty**ANTH 112 Introduction to Anthropology (3-0) 3 Cr. Hrs.***Prerequisite:* None.

This course provides an introduction to the origin and diversity of humans, which includes the evolution of humans and their cultures, contemporary cultural diversity, linguistics and applied anthropology. Biological and cultural adaptations are emphasized.

ANTH 117 Introduction to Archaeology (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course is a general survey of archaeology and includes an overview of the history of the field and the basic theories and methods employed in the study of archaeological cultures. Cultures from around the world are used as examples.

ANTH 201 Cultural Anthropology (3-0) 3 Cr. Hrs.*Prerequisite:* None.

A comparison of the ways of life for societies worldwide using anthropological theory and methods is provided in this course. Basic institutions of human society such as kinship, religion, law, politics and economics are examined to provide a better understanding of the diversity of contemporary societies. Course focuses on non-Western societies.

ANTH 211 Myth, Magic, World Religions (3-0) 3 Cr. Hrs.*Prerequisite:* ANTH 112 or ANTH 201 recommended but not required.

This course will take an anthropological perspective to the study of religions which will include indigenous religions and religions that originated in Asia, India and the Middle East. The role of contemporary religious movements in a rapidly changing world will be examined.

ANTH 214 Native American Traditions (3-0) 3 Cr. Hrs.*Prerequisite:* ANTH 112 or ANTH 201 recommended but not required.

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.

ARABIC

Dean: Cheryl D. Hawkins, MS

Instructors: Adjunct Faculty

ARB 101 Elementary Arabic 1 (4-0) 4 Cr. Hrs.*Prerequisite:* None.

This course is intended for students who have no previous education in Arabic. The course will cover basic grammar patterns and build competence in all four skill areas: speaking, listening, reading and writing. Through activities, emphasis will be placed on oral proficiency and communication. An appreciation of the cultures of the Middle East will be an integral part of the course.

ARB 102 Elementary Arabic 2 (4-0) 4 Cr. Hrs.*Prerequisite:* ARB 101 with a grade of 2.0 or better or one year of high school Arabic or consent of instructor.

This course is a continuation of ARB 101 and continues to review the basic Arabic grammar patterns and build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of the cultures of the Middle East will be an integral part of the course.

ARB 201 Intermediate Arabic 1 (4-0) 4 Cr. Hrs.*Prerequisite:* ARB 102 with a grade of 2.0 or better or two years of high school Arabic or consent of instructor.

This course is a continuation of ARB 102 and continues to cover grammar patterns and build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of the cultures of the Middle East will be an integral part of the course.

ARB 202 Intermediate Arabic 2 (4-0) 4 Cr. Hrs.*Prerequisite:* ARB 201 with a grade of 2.0 or better or three years of high school Arabic or consent of instructor.

This course is a continuation of ARB 202 and continues to cover grammar patterns and build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of the cultures of the Middle East will be an integral part of the course.

ART AND DESIGN

Dean: Cheryl D. Hawkins, MS

Instructors: Associate Professor James Nissen, DMA

Associate Professor Sarah Olson, MA

Adjunct Faculty

ART 105 Basic Drawing (3-0) 3 Cr. Hrs.

Prerequisite: None.

This studio course provides training in recording observed spatial and value relationships. Basic approaches to drawing and media are introduced. In addition to regular class time, students are required to spend three hours per week in a time-flexible studio lab provided by the college.

ART 106 Basic Design 1 (3-0) 3 Cr. Hrs.

Prerequisite: None.

This course provides an introduction to the elements and principles of design. Students are assigned projects in various media which reinforce the effective application of design principles. In addition to regular class time, students are required to spend three hours per week in a time-flexible studio lab provided by the college.

ART 109 Three Dimensional Design (3-0) 3 Cr. Hrs.

Prerequisite: ART 106 or consent of instructor.

This course provides an introduction to the elements and principles of design as applied to the construction of three-dimensional form. Students are assigned projects using a variety of materials including, but not limited to wood, clay and found objects. These projects are intended to stimulate and inspire effective application of the design principles to three dimensional art works. In addition to regular class time, students are required to spend three hours per week in a time flexible studio lab provided by the college.

ART 113 Art Education (3-0) 3 Cr. Hrs.

Prerequisite: PSYCH 201 recommended.

This course is a study of child growth and development through creativity. Students will study techniques and materials appropriate for use at various elementary grade levels. Emphasis will be placed on methods to stimulate children's creative interests. Students are required to make arrangements for observation of elementary classes during the latter part of the semester.

ART 115 Art History 1 (4-0) 4 Cr. Hrs.

Prerequisite: None.

This art history course examines the development of western art from pre-history through the 14th century with emphasis on various societies, artists and art forms including painting, sculpture and architecture.

ART 116 Art History 2 (4-0) 4 Cr. Hrs.

Prerequisite: None.

This art history course examines the development of western art from the early Renaissance through contemporary art with emphasis on various societies, artists and art forms including painting, sculpture and architecture.

ART 118 Ceramics 1 (3-0) 3 Cr. Hrs.

Prerequisite: None.

Fundamentals of ceramics; study of materials and basic techniques in shaping, decorating and firing will be covered in this course. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.

ART 119 Ceramics 2 (3-0) 3 Cr. Hrs.

Prerequisite: ART 118.

This course is a continuation of ART 118. Emphasis on good ceramic form; work with various types of ceramic materials; advanced techniques in shaping, decorating and firing will be covered. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.

ART 125 Life Drawing 1 (3-0) 3 Cr. Hrs.

Prerequisite: ART 105 or consent of instructor.

The major emphasis of this course is direct observation and expression of the human form using traditional media. Design and value relationships are studied, as are the superficial muscular and skeletal systems which affect surface form. Sessions on portraiture using an anatomical approach are included. Basic drawing concepts are reinforced through exploration of classic technique. In addition to regular class time, students are required to spend three hours per week in a time-flexible studio lab provided by the college.

ART 126 Basic Design 2 (3-0) 3 Cr. Hrs.

Prerequisite: ART 106.

This course is a continuation of ART 106 with emphasis on further development of concepts and refinement of skills. In addition to strengthening their own visual communication skills, students also learn to evaluate work of other artists and designers in terms of design cohesiveness. Students are required to spend three hours per week (in addition to regular class time) in a time-flexible studio lab provided by the college.

ART 201 Art Appreciation (3-0) 3 Cr. Hrs.

Prerequisite: None.

This course provides an introduction to the vast subject of visual art, including the effect of culture and history on the lives, aesthetics and creations of artists, and an exploration of technique and media employed by artists throughout time.

ART 205 Life Drawing 2 (3-0) 3 Cr. Hrs.

Prerequisite: ART 105 and ART 125 or consent of instructor.

This course is a continuation of ART 125 with emphasis on further development of concepts and refinement of skills. Students will refine their aesthetic, expressive approach to the human figure while focusing on limited media. In addition to regular class time, students are required to spend three hours per week in a time-flexible studio lab provided by the college.

- ART 211 Watercolor Painting 1 (3-0) 3 Cr. Hrs.**
Prerequisite: ART 105 recommended or consent of instructor.
 Introduction to color composition as it relates to still life and landscape painting will be covered in this course. Students will practice the use of dry-brush and wet-wash techniques. Project completion and exhibition of works will take place at the semester end. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
- ART 212 Watercolor Painting 2 (3-0) 3 Cr. Hrs.**
Prerequisite: ART 211.
 This course is a continuation of ART 211 providing for further investigation of water-based media, techniques and processes. Studio experiences with emphasis on individual experimentation and visual imagery will be part of this course. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
- ART 218 Ceramics 3 (3-0) 3 Cr. Hrs.**
Prerequisite: ART 119.
 An intermediate investigation of the art-making process using techniques specific to ceramics will be covered in this course. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
- ART 219 Ceramics 4 (3-0) 3 Cr. Hrs.**
Prerequisite: ART 218.
 An intermediate investigation of the art-making process using techniques specific to ceramics will be covered in this course. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
- ART 236 Painting 1 (3-0) 3 Cr. Hrs.**
Prerequisite: ART 105 recommended.
 This course introduces the student to fundamental painting techniques and processes through abstract, conceptual and representational imagery. Sessions on portraiture are included. In addition to regular class time, students are required to spend three hours per week in a time-flexible studio lab provided by the college.
- ART 239 Painting 2 (3-0) 3 Cr. Hrs.**
Prerequisite: ART 236.
 This course is a continuation of Painting 1, providing for further investigation of the painting media and processes. Students will work toward developing a focused approach both thematically and technically. Individual experimentation will be emphasized. In addition to regular class time, students are required to spend three hours per week in a time-flexible studio lab provided by the college.
- ART 243 Sculpture 1 (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course focuses on the development of skills through exploratory experiences in sculptural media and techniques leading to the understanding of sculptural form and conception. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.

- ART 244 Sculpture 2 (3-0) 3 Cr. Hrs.**
Prerequisite: ART 243.
 This course is a continuation of ART 243 providing for further exploration and application of sculptural media and techniques leading to the understanding of sculptural form and conception. This studio course requires a six-hour per week commitment, which includes three hours in a lecture/lab and three hours in the appropriate open lab.
- ART 248 Portfolio Preparation (1-0) 1 Cr. Hr.**
Prerequisite: ART 105, ART 106 and one of the following: ART 118, ART 125, ART 211, ART 236 or ART 243 or consent of instructor.
 This class enables the student to prepare a portfolio tailored to the specific entrance requirements of art schools and Bachelor of Fine Art Programs offered at four-year colleges or universities. Strengths and weaknesses of existing student work will be addressed along with suggestions for possible further study to improve the content of the portfolio.

AVIATION MANAGEMENT

Dean: William J. Dunbar, Jr., MS

Instructors: Adjunct Faculty

- AVM 101 Perspectives in Aviation (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course provides the student with an overview of the courses taught in the aviation management program. Overview topics include the development of aviation, fundamentals of flight, basic navigation, meteorology, airport planning and management, corporate and maintenance, the basic elements of airport infrastructure, airspace and navigation, aircraft operators, types and manufacturers. Students will learn about the evolution of domestic and international regulatory structure and specifically about the dimensions of U.S. federal regulations designed to ensure aviation safety. An overview of various aviation businesses with focus on career opportunities will also be provided.
- AVM 102 Aviation History (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course is structured to give the student a well-rounded review of the significant events, people, places and technologies in aviation as it progressed through history to the present day. The course will begin with a brief review of very early flight and then focus primarily on aviation advancements through the 20th century. Students will examine how the airline environment and general aviation are expected to change in the near future.
- AVM 103 Aviation Meteorology (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course is designed to help the student of aviation understand fundamentals of weather that are so important to aviation operations. It includes how weather is observed and the sources of weather information available. It serves as a valuable reference source for pilots at all levels of experience. Whether the connection to flying is as a new student to aviation, a certificated pilot, controller, dispatcher, scientist, engineer or an interested passenger, this course will help students understand the strong interdependence of aviation and meteorology.

AVM 104 Aviation Legislation (3-0) 3 Cr. Hrs.*Prerequisite: None.*

This course provides an opportunity to study the evolution of federal civil aviation regulations in the United States and will touch briefly on the international perspective. Students will learn the basic Federal Aviation Administration (FAA) requirements, regulations and certifications associated with the dimensions of aviation from the perspective of aircraft design, manufacturing, maintenance, the pilot, the aircraft owner, and the various types of flight operations (airlines, freight operators, executive flight, private pilot flight) and airports. Students will obtain an overview of the detailed requirements and an understanding of how the Federal Aviation Administration (FAA) is organized and operates to interface all aspects of aviation. The course will also cover the requirements of Homeland Security affecting aviation.

AVM 105 Private Pilot Ground School (3-0) 3 Cr. Hrs.*Prerequisite: None*

This course will prepare students for the FAA Private Pilot written exam in addition to providing the key elements needed to begin flight training. Students will obtain a working knowledge of aerodynamics, radio communications, flight controls, aircraft systems, weight and balance and flight planning. Students will also become familiar with applicable Federal Aviation Regulations (FARs) and National Weather Service products such as forecasts and pre-flight weather briefings and be able to recognize weather systems. Students will have the chance to plan a cross-country flight utilizing navigational skills, weather information, communication procedures, aircraft performance and aeronautical decision making. The FAA areas of emphasis will be discussed throughout the semester.

AVM 201 Aviation Law (3-0) 3 Cr. Hrs.*Prerequisite: None.*

This course covers legal principles governing the aviation industry. Students will gain an understanding of historical precedents, regulatory agencies and statutes, standards, contracts for aircraft leasing and purchase, liability and insurance, Federal Aviation Administration (FAA) enforcement and airline labor laws. Students will become familiar with sources of power available to federal, state and local governments to deal with the problems created by airport development and operation.

AVM 202 Aviation Maintenance Management (3-0) 3 Cr. Hrs.*Prerequisite: None.*

This course focuses on the organization, processes and operation of an aviation maintenance business. Students will learn about the types of maintenance businesses including airline maintenance, Maintenance Repair Overhaul (MRO) businesses, Original Equipment Manufacturer (OEM) maintenance, Fixed Base Operation (FBO) and airframe manufacturer maintenance. The course will include an overview of aircraft systems and basic maintenance requirements. Federal Aviation Administration (FAA) regulations and processes to ensure safety, quality and reliability associated with maintenance and repair will be covered. The perspective of the aircraft owner will also be discussed.

AVM 203 Airport Planning and Management (3-0) 3 Cr. Hrs.*Prerequisite: None.*

This course is an introduction to airport facilities, airport operations, the business processes involved in managing an airport and the development and maintenance of an airport master plan. The main focus will be on the typical large general aviation airport, but relevant differences will be explored for all airport sizes. The planning process will focus on the Federal Aviation Administration (FAA) advisory circular for airport planning. The course will also explore the relationship between the airport and the community, legislation affecting airports and planning, airport financing and development/management of services. Emphasis will be on management functions, organizational aspects, administration, security and public safety.

AVM 204 Corporate Aviation Management (3-0) 3 Cr. Hrs.*Prerequisite: None.*

The course provides an overview of the management and operation of an executive aviation business or corporate flight department for on-demand air travel. Students will be introduced to topics that include the value of using on-demand air travel, business organization, government regulation, aircraft and equipment evaluation, maintenance, flight operations, administration and fiscal considerations.

BIOLOGY

Dean: Cheryl D. Hawkins, MS

Assistant Dean of Sciences

Instructors: Professor Mohammed Abbas, PhD

Professor Thomas O'Connor, PhD

Professor Michael Orick, MS

Associate Professor Nickolas Butkevich, MS

Associate Professor Caroline McNutt, MS

Associate Professor Bonnita Taylor, MS

Assistant Professor Norma Golovoy, MS

Assistant Professor Stacey Gray, MS

Instructor Steven Cook, MS

Adjunct Faculty

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

This course is offered to students who seek to acquire the necessary background and skills to successfully complete a college-level biology course such as General Biology (BIOL 101). Emphasis is placed on basic terminology and concepts that contribute to an understanding of the scientific process and biological principles such as the scientific method, basic chemistry, cell biology, metabolism, genetics, evolution, biological classification and ecology.

BIOL 101 General Biology (4-3) 4 Cr. Hrs.*Prerequisite: BIOL 050 or successful completion (2.0+) of introductory high school biology within the last five years.*

This course is a one-semester introductory course. This course introduces students to the scientific study of living organisms. Students will investigate biological concepts including the chemical basis of life, cell structure and function, metabolism, reproduction, genetics, evolution, biological diversity and classification, plant structure and function, animal structure and function and ecology. Students attend four hours of lecture and three hours of laboratory each week. Science majors seeking to fulfill a two-semester introductory biology sequence should enroll in BIOL 120 and BIOL 130.

BIOL 103 Health Education (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course explores health and wellness including the effects of stress, physical fitness, nutrition, body weight, substance abuse, infectious diseases and environmental factors. Other topics will include sexuality, cardiovascular health, cancer, chronic health conditions and how to make informed decisions related to health.

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

This course introduces the basic principles of conservation biology as they relate to our critical need as global citizens to preserve and protect biodiversity and natural resources. In addition to studying the causes of extinction; habitat loss and restoration; management of populations, communities and ecosystems; students also explore philosophical issues in conservation values and ethics. This interdisciplinary course integrates contributions from the fields of law, political science, economics, history and sociology into the fundamental biological principles of conservation. Practical applications, personal stewardship and globally sustainable solutions are emphasized.

BIOL 105 Basic Human Anatomy and Physiology (4-0) 4 Cr. Hrs.*Prerequisite:* Successful completion of BIOL 050 or high school introductory general biology within the last five years.

This course introduces fundamental terminology and concepts that will enable students to acquire a basic understanding of the structure and function of the human body. The anatomy and physiology of the major human organ systems and their association with health and disease is explored. BIOL 105 is intended for students in allied health programs that do not require a laboratory course in human anatomy and physiology.

BIOL 114 Basic Human Nutrition (1-0) 1 Cr. Hr.*Prerequisite:* None

This course provides a basic study of human nutrition with emphasis on scientific principles, metabolism and the requirements for nutrients. The role of nutrition in optimizing health throughout the human life-cycle will be explored. Disease processes that require special nutritional support are studied.

BIOL 115 Nutrition (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course provides a study of the nature and role of nutrition with emphasis on the changing needs in the human life cycle. The relationship between nutrition and health will be explored. Topics such as vegetarianism, food fads and fallacies, obesity, weight control and food additives are studied.

BIOL 120 Principles of Biology 1 (4-3) 5 Cr. Hrs.*Prerequisite:* CHEM 111 recommended. Successful completion of high school biology and chemistry within last five years.

This is the first course of a two-semester introductory biology sequence for students interested in transferring to a four-year institution to pursue a degree in biology or other science-related discipline. Together, BIOL 120 and BIOL 130 provide science majors with a comprehensive introduction to biology. In this course, students will attend four hours of lecture and three hours of lab each week to study the process of scientific inquiry, biochemistry, cell structure, membrane transport, metabolism, cell reproduction, molecular genetics, biotechnology, principles of inheritance and evolution.

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

This is the second course of a two-semester introductory biology sequence for students interested in transferring to a four-year institution to pursue a degree in biology or other science-related discipline. Together, BIOL 120 and BIOL 130 provide science majors with a comprehensive introduction to biology. In this course, students will attend four hours of lecture and three hours of lab each week to study the evolution and diversity of living organisms, plant and animal anatomy and physiology, animal behavior and ecology.

BIOL 140 Scanning Electron Microscopy (1-3) 4 Cr. Hrs.*Prerequisite:* None.

This course emphasizes the principles and modes of operation of the scanning electron microscope and X-ray analysis systems, electron-specimen interactions, elemental analysis, effects of microscope variables on images, image processing, routine maintenance, the use of microscope accessories and digital outputs. In the laboratory, students will prepare and examine inorganic and organic specimens using the secondary, backscatter and variable pressure detectors of the SEM. Students complete a project consisting of the preparation, imaging and analysis of a biological specimen.

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

This one-semester course covers the gross and microscopic anatomy and physiology of the integumentary, skeletal, muscular, nervous, special senses, endocrine, circulatory, lymphatic, immune, respiratory, digestive, urinary and reproductive systems of the human body. Weekly instruction includes four hours of lecture and three hours of laboratory. The laboratory portion includes the use of prepared histological slides, anatomical models, bones, dissection of preserved specimens, blood typing, spirometry, urinalysis and blood pressure measurement. Students will also have an opportunity to examine a dissected cadaver.

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

This is the first course in a two-semester sequence in the comprehensive study of the structure and function of the human body. Emphasis will be placed upon the anatomy and physiology of the integumentary, skeletal, muscular, nervous and endocrine systems. Labs reinforce units of study and include the use of prepared histological slides, anatomical models, bones, dissection of preserved specimens and computer simulations. In addition, students will have the opportunity to examine a dissected cadaver to enhance anatomical studies. BIOL 237 and BIOL 238 are designed for the student who plans to pursue a career in the health or biomedical field. Students attend three hours of lecture and two hours of lab each week.

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

This is the second course in a two-semester sequence (continuation of BIOL 237) in the comprehensive study of the structure and function of the human body. Emphasis will be placed upon the anatomy and physiology of the circulatory, lymphatic, respiratory, digestive, urinary and reproductive systems. Labs reinforce units of study and include the use of prepared histological slides, anatomical models, dissection of preserved specimens, blood pressure measurement, spirometry, urinalysis and computer simulations. In addition, students will have the opportunity to examine a dissected cadaver to enhance anatomical studies. Students attend three hours of lecture and two hours of lab each week.

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

This course is a review of the anatomy and physiology of the human body with special emphasis on the physiology of the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive systems. This course is designed for students entering biomedical programs that require a review of the basic anatomy and physiology of the human body.

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

This course covers the world of microbes including microbial structures and function, biochemistry, metabolism, genetics, control of microbial growth, infectious diseases, immunity, classification and epidemiology. Laboratory techniques commonly utilized in microbiology are introduced, including microscope use, bacterial smears, staining methods, aseptic techniques, isolation of pure cultures, identification of unknown microorganisms and antibiotic testing.

BIOMEDICAL ENGINEERING TECHNOLOGY

Dean: William J. Dunbar, Jr., MS

Program Coordinator: Professor William Schlick, CBET, BEE, MCSE

Internship Coordinator: Chris Peters, CBET

Instructors: Adjunct Faculty

BMET 116 Biomedical Instrumentation Terminology and Safety 1 (2-1) 3 Cr. Hrs.*Prerequisite:* Acceptance into the Biomedical Engineering Technology Program (BMET).

Students will acquire a knowledge of the language common to electronics and the medical profession based on spelling, pronunciation and definition of words and terms related to anatomy, medical equipment, electronic test equipment and safety. They will become acquainted with the fundamentals of medical equipment and testing concepts. Students will be introduced to the field of Biomedical Engineering Technology as a career.

BMET 125 Laser Safety Concepts (3-0) 3 Cr. Hrs.*Prerequisite:* MATH 053 or equivalent and BMET 116.

This course has been designed as a basic introduction to medical applications in laser fundamentals and safety. Students will study the three properties of laser light: monochromatic, directionality, and coherency. Biomedical concerns of laser hazards involving the eye, skin, toxicity, electrical and fire will be covered. Types of site and skin damages that can occur when exposed to laser wavelength will be explored. Laser system hazards classifications and safety standards will be reviewed in addressing potential hazards, necessary safety restrictions, and specified laser classifications based on American National Standards Institute (ANSI) Z136.3 Standard along with relevant Federal Center for Devices and Radiological Health (CDRH), Occupational Safety and Health Administration (OSHA) as well as relevant State of Michigan requirements.

BMET 204 Biomedical Instrumentation Terminology and Safety 2 (2-2) 4 Cr. Hrs.*Prerequisite:* Acceptance into the Biomedical Engineering Technology Program (BMET) and BMET 116 with a grade of 3.0 or better.

This course is intended to provide students with knowledge of medical equipment in the hospital setting, equipment management, equipment maintenance and other fundamental principals related to Biomedical Engineering Technology.

BMET 254 Biomedical Equipment Internship 1 (0-24/40) 3 Cr. Hrs.*Prerequisite:* Acceptance into the Biomedical Engineering Technology Program (BMET) and BMET 116 with a grade of 3.0 or better.

This is the first cooperative assignment for a Biomedical Engineering Technology student who has completed the prerequisites for this course. Employment will be approximately 24 to 40 hours per week off campus in a technical capacity with a hospital or an employer in the biomedical field. The College and the employer will jointly evaluate the student, which will then serve as a basis for a final grade. A student on a BMET internship is considered a full time student with Schoolcraft College with all rights and privileges of a full time student. (Usually 15 weeks)

- BMET 255 Biomedical Equipment Internship 2 (0-24/40) 3 Cr. Hrs.**
Prerequisite: Acceptance into the Biomedical Engineering Technology Program (BMET) and BMET 116, BMET 204 and BMET 254 with a grade of 3.0 or better.
 This is the second cooperative assignment for a Biomedical Engineering Technology student who has completed one semester of internship. The conditions for assignment and evaluation are the same as for Biomedical Internship 1. The student is expected to handle an increased level of technical responsibility, and may possibly serve the internship at a hospital, medical equipment manufacturer or a medical equipment service company. The College and the employer will jointly evaluate the student, which will then serve as a basis for a final grade. (Usually 15 weeks)

BUSINESS

Dean: William J. Dunbar, Jr., MS

Instructors: Assistant Professor Gerard J. Mellnick, MBA, CPA
 Assistant Professor Susan Ontko, MBA
 Instructor Janice Feldbauer, MBA
 Adjunct Faculty

- BUS 101 Introduction to Business (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course introduces principles, problems and practices of business in areas of organization, management, information related management and e-business, labor, production, human relations, marketing, finance, insurance, regulation and government.
- BUS 103 Organizing a Small Business (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course is designed to explore the advantages and disadvantages of entrepreneurship for those who may be considering starting, operating or seeking employment in a small business. The course will emphasize the organization of the small business including the various forms of business ownership, business planning, starting the business, location, cash flow and marketing concepts.
- BUS 104 Operating a Small Business (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course is designed to explore the many considerations involved in owning and operating a small business. The course will emphasize the operation of a small business including insurance, employee relations, inventory control, purchasing, e-commerce, succession planning, financing, international business, legal and ethical issues.
- BUS 120 Strategic Selling (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 Both the novice and the professional salesperson can benefit from this course. The personal selling process will be studied in detail, emphasizing topics ranging from prospecting and qualifying to closing the sale and after sale follow-up. Territory management, selling to organizational buyers and the techniques of ethical salesmanship will also be explored. Students will gain valuable experience with the selling process through case studies, role playing exercises and by creating a sales presentation for demonstration.

- BUS 122 Advertising (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course focuses on the information and skills required to create effective advertising. The student will learn to recognize effective advertising and gain an appreciation for the challenges advertisers face in trying to reach target audiences. The course also concentrates on market research, media strategy, integrated marketing communication and the impact of advertising on consumer behavior.
- BUS 123 Consumer Behavior (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course explores the background of consumer behavior from the viewpoint of the individual, households, society and culture. Insights to individual behavior like personality, motivation and perception are covered. An exploration of social-cultural influences like economics, ethics and multiculturalism will provide an understanding of local, regional, national and global approaches to understanding consumers. In addition to consumer purchasing decisions, creating promotional strategies for customer retention and consumerism and public policy issues will be discussed.
- BUS 161 Retail Principles and Practices (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course introduces basic elements of retail organization and operation. Problem situations related to retailing are identified along with specific applications of retail procedures.
- BUS 202 Business Ethics (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course provides an overview of business ethics including its importance and its impact on stakeholders and society. The course will explore emerging ethical issues, the institutionalization of business ethics, the decision-making process and implementing business ethics in a global economy.
- BUS 204 Personal Finance (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course is a practical study of problems and solutions facing the consumer in today's society. The major areas that are covered in this course include personal budgeting, bank and financial institution comparison, strategies in the use and application of credit, insurance alternatives, housing alternatives, large item purchasing (such as automobiles) and occupational choices.
- BUS 205 Personal Investing (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course provides an overview of the opportunities and strategies available to the personal investor. The major areas covered include the types of investors and investments, securities markets, macroeconomic and industry variables, investment analysis and management and international investment strategies.

BUS 206 Foundation of Business Information Technology (3-0) 3 Cr. Hrs.*Prerequisite:* CIS 120.

This course provides a review of current Business Information Technologies, examines the role and functions of these technologies, and offers an opportunity to explore current and future issues related to technology in business operations. Major areas addressed include security, researching and selecting technologies, training issues and incorporating technology into an overall business plan.

BUS 207 Business Law 1 (3-0) 3 Cr. Hrs.*Prerequisite:* None.

In this course you will learn how a business is impacted by the legal environment. You will be introduced to the key principles of business law including contracts, sales transactions, legal processes of crimes and torts, consumer rights and real-world cases showing these principles in action.

BUS 208 Business Law 2 (3-0) 3 Cr. Hrs.*Prerequisite:* BUS 207 recommended.

This course is a continuation of BUS 207 with emphasis on negotiable instruments, real and personal property, agency, partnerships, corporations, employment, and wills and estates.

BUS 215 Business on the Web (3-0) 3 Cr. Hrs.*Prerequisite:* BUS 101 or equivalent.

This course introduces the student to the key business and technology elements of electronic commerce. Both the theory and practice of conducting business over the Internet and World Wide Web are presented. The major topics include planning and building a Web presence, marketing on the Web, business-to-business strategies, online auctions, legal/ethical/tax issues, Web server hardware/software, security, payment systems and technology infrastructure.

BUS 217 Business Management (3-0) 3 Cr. Hrs.*Prerequisite:* BUS 101 or consent of department.

This course centers on the basic functions of the management process which are decision making, organizing, staffing, planning, controlling, communicating and directing.

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

In this course you will discover how to become a successful and respected supervisor in the current contemporary workplace. Besides assessing your current supervisory traits, you will develop new skills addressing leadership, staff motivation, effective communication methods, problem-solving techniques, time management, multitasking and human relations. You will explore real-world situations and learn strategies to overcome a variety of challenges facing supervisors in a global and diverse workplace.

BUS 221 Statistical Inference for Management Decisions (3-0) 3 Cr. Hrs.*Prerequisite:* MATH 122.

The course is an in-depth study of Probability and Statistics. The course concentrates on decisions based on statistical data and is a logical subsequent course to MATH 122 Elementary Statistics.

BUS 226 Principles of Marketing (3-0) 3 Cr. Hrs.*Prerequisite:* BUS 101 or consent of department.

In this course you will learn an integrated analytical approach to the marketing process and essential economic principles as they apply to the marketing process. You will also be introduced to the relationships of marketing decisions, marketing research, consumer behavior, product strategy, channels of distribution, promotion and pricing.

BUS 230 Human Resource Management (3-0) 3 Cr. Hrs.*Prerequisite:* BUS 101 or consent of department.

In this course, you will be introduced to the dynamic role of human resource management in supporting an organization's mission and objectives. You will explore the legal influences on selecting, managing and retaining human resources. You will prepare valid selection instruments and conduct effective interviews and performance reviews. We will discuss contemporary employment issues and global human resource concerns. You will become knowledgeable about the various systems and practices to help build a skilled and motivated workforce.

BUS 240 International Business (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course focuses on the latest theories and concepts in international business while emphasizing the leading role culture plays in global commerce. The issues and challenges confronting international companies are explored along with the various strategies companies may pursue.

CHEMISTRY

Dean: Cheryl D. Hawkins, MS

Assistant Dean of Sciences

Instructors: Professor Cheryl Snyder, MS

Associate Professor Paul Dickson, PhD

Associate Professor Michael Waldyke, MS

Instructor Jerome Lavis, PhD

Adjunct Faculty

CHEM 051 Basic Chemistry (4-2) 4 Cr. Hrs.*Prerequisite:* MATH 053 or equivalent.

This is an elementary course in chemistry for students who have not had high school chemistry or who wish to review basic chemical concepts. This course provides an introduction to chemical measurement, basic definitions and laws, chemical nomenclature and equations, calculations based on chemical equations, atomic theory, the Periodic Table, solutions, acids, bases, gases and organic chemistry.

CHEM 100 Introduction to the Chemistry of Food for Culinary Arts (3-2) 4 Cr. Hrs.*Prerequisite:* None.

Corequisite: Students must be enrolled in 100 level or above core culinary classes.

This course is designed to familiarize the culinary arts student with a basic understanding of scientific principles as they apply to foods and culinary processes. The course will include a basic introduction to various aspects of chemistry. Classes of foodstuffs will be examined on a molecular level to ascertain an understanding of the interactions that occur in culinary applications. The laboratory portion of the course will emphasize the relationships between chemical principles/techniques and food preparation.

CHEM 111 General Chemistry 1 (4-3) 4 Cr. Hrs.

Prerequisite: CHEM 051 or equivalent with a grade of 2.0 or better. MATH 113 or equivalent. Math may be concurrent.

This course is designed as a first course in a traditional one-year program in general college chemistry and includes a review of fundamental concepts such as symbols, formulas, chemical equations, laws of chemical combination and physical and chemical properties. Atomic and molecular structure, bonding, stoichiometry, periodicity, gases, solutions, acids and bases and electrochemistry and oxidation-reduction are also covered in this course.

CHEM 117 General Chemistry 2 and Qualitative Analysis (4-4) 5 Cr. Hrs.

Prerequisite: CHEM 111 with a grade of 2.0 or better or consent of department.

This course is the second course in a traditional one-year general college chemistry program and includes the study of kinetics, solution equilibria, solubility equilibria, hydrolysis, coordination compounds, thermodynamics and qualitative analysis. A brief introduction to organic chemistry and nuclear chemistry is also included. Laboratory work correlates with lecture and stresses the identification of common cations and anions by semi-micro methods.

CHEM 120 Organic and Biochemistry (3-3) 4 Cr. Hrs.

Prerequisite: CHEM 111.

This course is an introduction to both organic chemistry and biochemistry. Major topics covered include structures, functions and reactions of organic and biological compounds; the chemistry of metabolic processes; enzymatic processes; and related topics. The laboratory portion of the course includes exercises in organic and biochemistry designed to reinforce lecture topics.

CHEM 213 Organic Chemistry 1 (4-4) 5 Cr. Hrs.

Prerequisite: CHEM 117 with a grade of 2.0 or better or consent of department.

This is the first semester of the two-semester sequence of Organic Chemistry. Course content emphasizes bonding and structure of carbon compounds, as well as a mechanistic understanding of organic reactions. Other topics include standardized nomenclature, acid-base behavior of organic molecules, classification of compounds based on functional groups and their characteristic reactions and structure/properties relationships. The laboratory portion of the course covers a range of techniques fundamental to the practice of organic chemistry. Students are also introduced to the use of modern spectroscopy for structural determination.

CHEM 214 Organic Chemistry 2 (4-4) 5 Cr. Hrs.

Prerequisite: CHEM 213 with a grade of 2.0 or better or consent of department.

This is the second semester of the two-semester sequence of Organic Chemistry. Course content emphasizes characteristic reactions of aromatic compounds and a wide variety of more complex functional groups, including carbonyl compounds, carbonyl-derivatives and amines. Practical application of functional-group transformation reactions to organic synthesis is addressed, as is utilization of a number of spectroscopic methods for structural determination. The laboratory portion of the course continues development of practical skills in organic transformations using more complex reaction techniques with application to organic synthesis.

CHILD AND FAMILY SERVICES

Dean: William J. Dunbar, Jr., MS

Instructors: Associate Professor Diane Flynn-Hahn, MA

Associate Professor Elizabeth Grace, MEd

Adjunct Faculty

CCD 100 Introduction to Child Welfare Services (3-0) 3 Cr. Hrs.

Prerequisite: None.

Students will receive wide exposure to community agencies and resources available to children and youth. There will be focus on identifying needs of children and methods through which those needs are met by the community when parents are unable to do so or need assistance.

CCD 101 Preschool Child Care (3-0) 3 Cr. Hrs.

Prerequisite: CCD 116 or consent of department.

Corequisite: CCD 150 if not previously taken.

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 a focus on stages of development, typical behaviors, curriculum development and implementation. Observational skills will be sharpened, with concentration on signals alerting students to the children's levels of functioning.

CCD 102 Foundations of Early Childhood Education (3-0) 3 Cr. Hrs.

Prerequisite: None.

Students will be provided a general overview of Early Childhood Education. This review includes an introduction to early childhood education, theories of child development, information on key organizations, relevant laws and regulations, discussion on opportunities within this field, the NAEYC code of ethical conduct, core competencies for the field and developmentally appropriate practices. Students will spend time observing a variety of early childhood programs.

CCD 105 Introduction to Developmental Disabilities (3-0) 3 Cr. Hrs.

Prerequisite: CCD 216.

Corequisite: CCD 216 if not previously taken.

This course is designed to introduce students to the health and developmental problems of persons with cognitive impairment (CI). Emphasis is placed on gaining knowledge of the various syndromes typical in CI populations and learning to recognize medical symptoms. Attention will also be given to developing an understanding of prescribed drugs and their side effects, as well as infectious diseases.

CCD 113 Special Educational Programs and Supported Living (3-0) 3 Cr. Hrs.

Prerequisite: CCD 216.

Corequisite: CCD 216 if not previously taken.

Students will become familiar with considerations of placement and training of persons with cognitive impairments, emotional impairments, learning impairments 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 supportive living environments. In addition, current laws and regulations regarding licensing, equipping and maintaining the physical plant, staffing, food services, health and social services, budgeting and program development will also be addressed.

- CCD 115 School-Age Child Care (3-0) 3 Cr. Hrs.**
Prerequisite: CCD 116 or consent of department.
Corequisite: CCD 150 if not previously taken.
 This course is designed to identify the developmental tasks of middle childhood (ages 6–12) and suggest ways that caregivers can help foster healthy growth and development. Emphasis will be on understanding the needs of the school-age child and methods by which they are met.
- CCD 116 Child Development (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course is designed to provide students an overview of life from its beginning through emerging adulthood. The course will concentrate on physical, cognitive, social and emotional development in the prenatal, infancy, toddler, preschool, middle childhood and adolescent periods.
- CCD 118 Infant and Toddler Care (3-0) 3 Cr. Hrs.**
Prerequisite: CCD 116 or consent of department, and CCD 150.
Corequisite: CCD 150 if not previously taken.
 This course is designed to prepare students to provide care for infants and toddlers in group care settings. Students will learn the essential ingredients in infant and toddler care and will learn to match caregiving strategies to very young children as they develop. A holistic emphasis focuses on the development of a curriculum which provides for the physical, emotional, social and cognitive development of infants and toddlers.
- CCD 121 The Adolescent (3-0) 3 Cr. Hrs.**
Prerequisite: CCD 116 or consent of department.
 In this course the student will explore major theories in adolescent development and use the theoretical constructs to understand adolescent behavior. Students will recognize the contributing factors which lead to the development of a stable identity hierarchy and the development of responsibility in adolescence.
- CCD 126 Creative Activities (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 The purpose of this course is to introduce students to the stages of creativity development in children. Open-ended process art and creative activities will be emphasized that are appropriate for young children and persons with developmental challenges. Lab experiences are incorporated into this course.
- CCD 130 Learning Disabilities (3-0) 3 Cr. Hrs.**
Prerequisite: CCD 216.
Corequisite: CCD 216 if not previously taken.
 This course is designed to acquaint the student with the perceptual and learning issues of learning disabled children and special education programs in the public school which provide specialized learning situations for them. The diagnosis of disorders of visual and auditory perception, language, motor coordination, cognition, and attention deficit related to the learning processes are discussed as well as specific recommendations for remediation and implications for school planning.

- CCD 140 Emotional Impairment (3-0) 3 Cr. Hrs.**
Prerequisite: CCD 216.
Corequisite: CCD 216 if not previously taken.
 The purpose of this course is to acquaint students with concepts and materials related to the education of children with emotional impairments. The major theories related to causes and treatment of emotional and behavior problems will be covered.
- CCD 150 Child Care Practicum 1 (3-0) 3 Cr. Hrs.**
Prerequisite: CCD 116 or consent of department.
 Students will have supervised experience working directly with children and youth in settings such as child development centers and group homes. They will have the opportunity to integrate classroom material and personal life experiences with on-the-job experience and evaluate the experiences of children in light of the concepts they have learned. Emphasis will be placed on observing and reporting activities of the children.
- CCD 155 CDA Assessment Preparation (1-0) 1 Cr. Hr.**
Prerequisite: CCD 101 or CCD 118, CCD 102, CCD 116, CCD 150 and CCD 221.
 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.
- CCD 200 Child Care Practicum 2 (3-0) 3 Cr. Hrs.**
Prerequisite: CCD 101 and CCD 150.
 This course provides continued supervised experience working directly with children and youth in child development settings. Students will have increased responsibility planning and implementing activities for children. Emphasis will be placed on working as a contributing member of a teaching team. Students will spend 150 hours over the course of the semester in their approved practicum placement.
- CCD 211 Children and Youth in Groups (3-0) 3 Cr. Hrs.**
Prerequisite: CCD 150.
Corequisite: CCD 150 if not previously taken.
 The course is designed to introduce students to the role of social competence in the lives of children. Students are introduced to the principles of group functioning and techniques of helping children become accepted members of peer groups. Behavior modification principles and strategies are examined. Emphasis is placed on respecting children and understanding influences on their behavior.
- CCD 214 Operation and Maintenance of a Child Care Facility (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course will cover methods of operating and maintaining a child care facility. Included will be current laws and regulations regarding licensing, accreditation, equipping and maintaining the physical plant, staffing, food services, health and human services, budgeting and program development.
- CCD 215 Methods and Curricula for Persons With Developmental Disabilities (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course will familiarize the student with the theoretical approaches of education for persons with special needs including a survey of various curricula.

CCD 216 The Child With Special Needs (2-2) 3 Cr. Hrs.*Prerequisite:* None.

This course is designed to introduce students to the topic of children with special needs. Included is the exploration of cognitive impairments, emotional impairments, learning impairments, visual and hearing impairments, and orthopedic and/or other health impairments.

CCD 218 Practicum 2—Special Education Focus (3-0) 3 Cr. Hrs.*Prerequisite:* CCD 150, CCD 215 and CCD 216.

Continued supervised experience working directly with children and adults with special needs in educational and group settings. Students will have increased responsibility providing and implementing activities for children and adults with special needs. Emphasis will be placed on working as a contributing member of a teaching team. Students will spend 150 hours over the course of the semester in their approved practicum placement.

CCD 221 Early Literacy and Numerical Thinking (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course explores literacy and numerical thinking in early childhood. An emphasis will be placed on constructivist and sociolinguistic views of learning. Experiential exercises and reading will provide students with opportunities to plan developmentally appropriate learning activities, to record observations of children and to generate developmental analyses that support literacy and numerical thinking development.

CCD 224 Emerging Educator (1-0) 1 Cr. Hr.*Prerequisite:* Consent of department.

A required conclusion to the Schoolcraft College Child and Family Services Associate Degree Programs. This capstone course is designed for students to demonstrate competencies in their designated program of study of early childhood or special education. In the Emerging Educator course students will present evidence of skills and knowledge gained through the program.

CHINESE

Dean: Cheryl D. Hawkins, MS
Instructors: Adjunct Faculty

CHIN 101 Elementary Chinese 1 (4-0) 4 Cr. Hrs.*Prerequisite:* None.

This course is intended for students who have no previous education in Chinese. The course will cover basic grammar patterns and build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of Chinese culture will be an integral part of the course.

CHIN 102 Elementary Chinese 2 (4-0) 4 Cr. Hrs.*Prerequisite:* CHIN 101 with a grade of 2.0 or better or one year of high school Chinese or consent of instructor.

This course is a continuation of CHIN 101 and continues to review the basic grammar patterns and build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of Chinese culture will be an integral part of the course.

COLLEGE AND BEYOND

Dean: Cheryl D. Hawkins, MS
Associate Dean: Deborah B. Daiek, PhD
Instructors: Adjunct Faculty

CAB 101 Student Success (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course is designed to increase students' learning potential and success in college and beyond. Each student will actively explore learning strategies and attitudes that lead to improved grades and employability. Topics covered in the course include college language and resources, time/task planning, critical thinking, study techniques, uses of the e-portfolio, self reflection, and exploring attitudes and dispositions successful students bring to a learning environment. Each student will learn to apply the principles covered in this course to other college course work.

COLLEGIATE SKILLS

Dean: Cheryl D. Hawkins, MS
Associate Dean: Deborah B. Daiek, PhD
Instructors: Adjunct Faculty

COLLS 045 ESL Reading and Word Power (3-1) 4 Cr. Hrs.*Prerequisite:* None.

This course focuses on developing vocabulary and comprehension skills in group and lab settings for the international student. Students will explore and develop reading strategies to improve efficiency and understanding.

COLLS 049 Critical Reading and Thinking Applications for the International Student (3-1) 4 Cr. Hrs.*Prerequisite:* COLLS 045 or appropriate reading placement score.

This course is designed to prepare international students to successfully handle college level reading assignments. Reading comprehension techniques and second language vocabulary development strategies are emphasized using a variety of materials. Culturally appropriate techniques will be applied to selected materials and textbooks students are currently using.

COLLS 050 College Reading (4-0) 4 Cr. Hrs.*Prerequisite:* None.

This course focuses on developing vocabulary and comprehension skills in group and lab settings. Students will explore and develop reading strategies to improve efficiency.

COLLS 053 Critical Reading and Thinking Applications (4-0) 4 Cr. Hrs.*Prerequisite:* COLLS 050 or appropriate reading placement score.

This course is designed to prepare students to successfully handle college level reading assignments. Reading comprehension techniques and vocabulary development strategies are emphasized using a variety of materials. Techniques will be applied to selected materials and textbooks students are currently using.

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

This course is designed to provide students with the learning skills and support necessary to successfully balance academic and other life demands. Students will apply techniques to their personal situations and course load requirements.

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

This course introduces the Schoolcraft College Electronic Portfolio. Students will engage the college learning experience by 1) growing an awareness of the college's expectations that they will acquire the attitudes, skills, knowledge and ability characteristic of generally educated persons, 2) understanding the changing nature of the college learning focus from acquisition of courses and credits to providing demonstrable evidence of their learning outcomes and 3) starting the process of creating their personal electronic portfolios as the primary vehicle for showcasing their demonstrable evidence. Students will leave the course with some experience in the college learning environment, knowing the kind of expectations they will meet in their courses and programs and the beginnings of their own Schoolcraft College Electronic Portfolio on electronic media.

COLLS 130 Applied Learning Theory for Nursing Majors (3-0) 3 Cr. Hrs.*Prerequisite:* COLLS 053 or college level reading placement score and BIOL 050.

This course is designed to prepare pre-PN and RN students for demands of the nursing program. Emphasis will be placed on developing and applying critical reading, thinking and learning strategies to nursing content. Topics covered in the course are reading speed/comprehension, reading study system, lecture note taking, time/goal management, test preparing/test taking and communications skills.

COLLS 211 Electronic Portfolio—Exit Course (1-0) 1 Cr. Hr.*Prerequisite:* COLLS 111.

This course concludes the process of building the Schoolcraft College Electronic Portfolio begun in COLLS 111. Students will review their college learning experience as well as collect, organize and reflect upon evidence that they have developed attitudes, skills, knowledge and abilities associated with a generally educated person during that experience. Students will create personal program-level portfolios following the college's specified guidelines that demonstrate their academic achievements and showcase what they have to offer as Schoolcraft College graduates. The college may select a sample of the portfolios produced for assessment of institutional or program outcomes.

COMMUNICATION ARTS

Dean: Cheryl D. Hawkins, MS

Instructors: Professor JuJuan C. Taylor, PhD
Adjunct Faculty**COMA 103 Fundamentals of Speech (3-0) 3 Cr. Hrs.***Prerequisite:* None.

This course develops essential skills through directed practice in a variety of speech situations and furnishes basic knowledge necessary for intelligent speech improvement; stress is on speaker's ideas, attitudes and audience adjustment.

COMA 200 Interpersonal Communications (3-0) 3 Cr. Hrs.*Prerequisite:* COMA 103 or consent of instructor.

This course provides study and practical application exercises in the basic elements of interpersonal communication with emphasis on self-concept, perception, meanings, listening, feedback, defensive communication barriers and nonverbal communication. Special attention will be given to improving interpersonal communication skills.

COMA 201 Discussion (3-0) 3 Cr. Hrs.*Prerequisite:* COMA 103 or equivalent.

This course conveys a better understanding of human affairs. The student will review attitudes and skills for effective participation in discussion including cooperative thinking, exchange of ideas and problem solving.

COMA 210 Communication for Leaders (3-0) 3 Cr. Hrs.*Prerequisite:* COMA 103.

This course is an exploratory examination of the leadership role within today's professional arena. The course is designed as an overview to develop communication awareness and effectiveness in teams of leaders within the community, corporate interviews, small group discussions and problem-solving in staff meetings and presentations as well as an examination of communication barriers.

COMA 230 Introduction to Mass Communication (3-0) 3 Cr. Hrs.*Prerequisite:* COMA 103.

Understanding media in today's world is more than a scholarly exercise; it is a necessary survival skill in a world that has been utterly changed by mass communication. All students, whether they will be practitioners, critics or consumers, have to be able to analyze the ways in which mass media is being used to change the world. This course provides the tools needed to accomplish this analysis.

COMPUTER AIDED DESIGN

Dean: William J. Dunbar, Jr., MS

Instructors: Professor Catherine Ferman, MS, PE
Adjunct Faculty**CAD 101 Introduction to Computer Aided Drafting (2-2) 3 Cr. Hrs.***Prerequisite:* Drafting experience and consent of department.

This course is designed for the experienced drafter who wants to obtain some CAD skills. Topics to be covered will include 2D drawing creation, drawing, editing, and plotting as well as view manipulation. In addition, the student will learn the basics about file saving, retrieving and copying.

CAD 103 Engineering Graphics (2-2) 3 Cr. Hrs.*Prerequisite:* None.

This course is designed to introduce the student to the basic concepts and standard practices necessary for the graphical communication of technical data which includes the reading, interpretation and creation of engineering drawings, technical sketching and introduction to computer-aided drafting (CAD). Topics introduced include orthographic projection, pictorials, sectioning, auxiliary views, dimensioning, tolerancing, surface finish and fasteners. This course is designed for the transfer Engineering student and as an introductory course for those who are considering a career as a mechanical or tool designer.

- CAD 106 Advanced Drawing Views and Descriptive Geometry (3-2) 4 Cr. Hrs.**
Prerequisite: CAD 103 or equivalent.
 This course is designed to teach the student advanced skills in drawing view creation. Sketching and computer aided drafting (CAD) will be the tools for communicating mechanical product information. Topics to be covered will include projection methods for creating orthographic, auxiliary and section views. Descriptive Geometry will be used to solve advanced drawing problems. This course is designed for those who have chosen a career as a mechanical or tool designer.
- CAD 107 Detailing (2-4) 4 Cr. Hrs.**
Prerequisite: CAD 106 or equivalent.
 This course is designed to teach the student the concepts and standard practices involved in the creation of detail and assembly drawings. Geometric Dimensioning and Tolerancing (G.D. and T.) philosophy will be employed for controlling variations. Sketching and computer-aided drafting (CAD) will be the tools for communicating mechanical product and tool information. The student will create 3D models and 2D drawings. Simple assemblies will be constructed and analyzed using previously created parts. Topics to be covered will be dimensioning standards and practices, tolerancing methods, tolerance stack-up evaluation, G.D. and T. methods, 3D modeling, and 2D and data extraction from 3D models.
- CAD 211 CATIA—Level 1 (4-0) 4 Cr. Hrs.**
Prerequisite: None.
 This first level CATIA course will cover the basics of creating, editing and storing 3D models. The construction and constraining of assemblies will be covered as will the creation of detail and assembly drawings using the drafting package.
- CAD 212 CATIA—Surfacing (2-2) 4 Cr. Hrs.**
Prerequisite: CAD 211 or equivalent.
 This course is designed to present higher level part modeling commands for CATIA Modeler. Particular attention will be paid to surfacing.
- CAD 221 SolidWorks—Level 1 (4-0) 4 Cr. Hrs.**
Prerequisite: None.
 This first level SolidWorks course will cover the basics of creating, editing and storing 3D models. The construction and constraining of assemblies will be covered as will the creation of detail and assembly drawings using the drafting package.

COMPUTER GRAPHICS TECHNOLOGY

Dean: William J. Dunbar, Jr., MS

Instructors: Professor Michael Mehall, MA

Professor Stephen Wroble, MA

Associate Professor Colleen Case, MLS

Adjunct Faculty

- CGT 109 Design Concepts and Technology (3-0) 3 Cr. Hrs.**
Prerequisite: None.

In order to succeed in any discipline within the Computer Graphics field students must have a strong sense of design. This course covers both the theoretical and the practical aspects of design theory, design process and software application. This course includes an introduction to design elements and principles—how they work together to create effective communication. It includes an understanding of typography, grid systems and color theory including physiological, emotional and cultural variations. Materials include a look at human perception and Gestalt theory to foster an understanding for visual communication. A variety of application programs are introduced in order to explore proper file types and tools and the strengths and limitations of a variety of digital media. The computer graphics industry is explored and resources are provided for concept development and job search along with a brief introduction to intellectual property rights. This course provides foundation skills for all classes within the CGT curriculum. In this course students will use software at an introductory level, exploring vector and bitmapped images, page-layout, animation and interactive Web site development. Projects and exercises are designed to allow students to do both short skill building exercises and more complex larger works.

- CGT 123 Illustration—Illustrator (3-0) 3 Cr. Hrs.**
Prerequisite: CGT 109 or may be taken concurrently.

This course is intended to introduce students to the field of graphic design and illustration using professional computer drawing software. Emphasis is on learning the software and on applying basic design skills to the computer generated image. Students are instructed in the fundamentals of drawing on the computer, working with color, working with type and combining type and image for effective communication. Students are expected to be familiar with basic functions of the computer before beginning the class.

- CGT 125 Digital Imaging 1—Photoshop (3-0) 3 Cr. Hrs.**
Prerequisite: CGT 109 or may be taken concurrently.

This course introduces students to the field of digital imaging and electronic photographic manipulation using Adobe Photoshop. Emphasis is placed on developing strong software and digital imaging skills plus reinforcement of design and creative skills. This will be accomplished through a series of progressively challenging assignments, which mirror professional studio projects. The class will progress the student's skills from basic application knowledge to advanced image manipulation techniques. The assignments will be applicable for both print and screen based imagery. Students are expected to have some computer experience and be familiar with basic functions of the computer before beginning the class.

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

This course introduces students to the field of publishing design using Adobe InDesign. Emphasis is on learning the software and on applying basic design skills to computer generated design. Students will have the opportunity to learn the fundamentals of page-layout, typography, working with color and color separations and preparing documents for printing. Students are expected to have some computer experience and be familiar with basic functions of the computer before beginning the class.

CGT 135 Web Graphics (3-0) 3 Cr. Hrs.*Prerequisite:* CGT 125.

This course covers techniques for creating and designing graphical layouts for future use on the Web. The student will learn the principles of design and functionality as it pertains to Web site design and layout and how to create the different image types that current Web browsers support. The student will also be instructed on the methods of deconstructing a design to generate optimized image assets that can be used later in the implementation of a Web site's construction. In addition, skills in design image optimization techniques, color theory and an understanding of multiple platforms, operating systems and browser limitations are covered.

CGT 141 Introduction to Interactive Media and Game Design (3-0) 3 Cr. Hrs.*Prerequisite:* None.*Corequisite:* CGT 125.

This course is an introduction to the creation of computer games and other interactive media. Students will learn how to make basic 2D animations and use basic scripting techniques to make interactive projects for CD-ROM and kiosk based projects. Emphasis will be on solving the special design and production problems encountered when creating non-linear projects, along with animation techniques, basic scripting, memory management, importing/exporting considerations, basic sound and video, project management and production planning.

CGT 149 Typography (3-0) 3 Cr. Hrs.*Prerequisite:* None.*Corequisite:* CGT 123.

This course introduces the graphic design 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.

CGT 154 Sound Editing for Graphic Artists (2-0) 2 Cr. Hrs.*Prerequisite:* None.

This course provides an introduction to the basic concepts of sound production for computer and video based delivery systems. Also emphasized are the necessary hardware/software, sound recording and editing, file management and transfer and aesthetic considerations.

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

Every successful piece of graphic design succeeds on both the technical and conceptual level. This course focuses solely on the technical—or execution—part of graphic design as it relates to printed material. Students will have the opportunity to learn how commercial printing is done and how the printing process imposes limits on graphic design. Students will learn how to work with printers to achieve the best possible results.

CGT 161 History of Graphic Design (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course introduces the student to the history of graphic design and its application as a form of mass communication. Students examine how social, cultural and technical considerations have influenced the way information is designed for publication. Students learn how an understanding of historical, cultural and social influences leads to more effective graphic design in the modern world.

CGT 162 XHTML—CSS Standards (3-0) 3 Cr. Hrs.*Prerequisite:* Computer experience highly recommended.

This course introduces the student to the unique design principles and W3C standards for electronic screen design. Designing for the World Wide Web or for an interactive computer screen requires a new look at design principles. This course compares traditional paper design to electronic screen design. Students will design and code basic Web sites utilizing XHTML and Cascading Stylesheets (CSS) with an emphasis on access and semantic markup.

CGT 166 Photography (3-0) 3 Cr. Hrs.*Prerequisite:* Computer experience highly recommended.

This course is designed to instruct the student on photographic principles that affect exposure, image structure, composition, printing and the interface with digital media. Students will experience hands-on photography sessions that demonstrate lighting, visual effects and composition development based on contrast and focal point awareness. In conjunction with the camera, the student will explore advanced digital imaging options, the zone system and creative merging techniques. Course materials are designed for the student pursuing a graphic design career. The student will be required to have a 35mm camera and is responsible for film and processing costs or digital equivalent.

CGT 168 Storyboarding (3-0) 3 Cr. Hrs.*Prerequisite:* CGT 166.

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.

CGT 206 Scripting for Interactive Media and Game Design (3-0) 3 Cr. Hrs.*Prerequisite:* CGT 141.

This is an intermediate course in the creation of computer games and other interactive media projects. Emphasis in this course is on advanced scripting techniques required to produce effective and highly interactive games or projects for CD-ROM or computer based projects. Emphasis will be on scripting techniques to control navigation, animation, sound, video and memory management.

CGT 208 Digital Video Production (3-0) 3 Cr. Hrs.*Prerequisite:* CGT 123, CGT 125 and CGT 168.

This course is an overview of skills required to create digital video productions. Students will develop video productions using pre-production planning, practical skills in camera usage, efficiencies in directing and production skills and refined non-linear editing. The productions developed during the semester will include informational, marketing and promotional materials.

CGT 210 Visual Effects Production (1-2) 3 Cr. Hrs.*Prerequisite:* CGT 208.

This course is designed to integrate video production techniques, 3D model building and computer graphics compositing. Students will develop the practical skills to coordinate the merger of these techniques into a consistent visual effects production. This course will enable the students to effectively calculate shooting angles, monitor film speeds, develop mattes and scale 3D models or miniatures into a final scene. Safe Practical Effects will be developed that can be used on a set to accomplish dramatic effects while maintaining visual continuity of composited digital images.

CGT 211 Flash (3-0) 3 Cr. Hrs.*Prerequisite:* Experience with a vector-art drawing program. CGT 123 may be taken concurrently.

This course provides the student with an introductory knowledge of working with Flash. Flash is a vector-based design program for the creation of animation, games and interactive components for use on the internet. Students will focus on the creation of basic animation and navigation components for use on the internet as well as for stand-alone projects.

CGT 212 Flash Action Scripting (3-0) 3 Cr. Hrs.*Prerequisite:* CGT 211 or equivalent experience with Flash.

This course provides an in-depth exposure to the Flash Action Scripting language. Students will learn to write scripts which extend and enhance the capabilities of the Adobe Flash software. During the semester, each student will design and produce a complex, highly interactive project such as a Web site, computer game or computer-based training module. Students should have a working knowledge of Flash before beginning this class.

CGT 215 Motion Graphics 1—After Effects (3-0) 3 Cr. Hrs.*Prerequisite:* CGT 109, CGT 123 and CGT 125.*Corequisite:* CGT 168.

This course develops creative freedom and control for designing sophisticated motion graphics and visual effects for film, video, multimedia and the Web. Students will integrate previously learned applications into motion-graphics using Adobe After Effects and/or related applications. Students will develop an understanding of motion control and keying capabilities plus audio and visual effects.

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

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 and design can be enhanced with the dynamic range of Photoshop options. Students will develop advanced compositing skills, sensitivity to the selection of color modes plus channel and masking options, restoration and repair processes and an understanding of usable effects.

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

This course emphasizes the integration of design and software skills to create more effective layouts for print media. Students will explore photography and digital imaging, illustration, graphic design and page layout. Students learn to use type effectively, create and integrate images and type, set up projects for printing and apply design principles to create effective and readable documents. Instruction in advanced software techniques and in the use of a variety of peripherals is featured. Emphasis will be on the application of software and design skills to a variety of realistic graphic design projects.

CGT 236 Web Design (3-0) 3 Cr. Hrs.*Prerequisite:* CGT 135 and CGT 162.

This course emphasizes the integration of design principles and software skills to create effective Web sites. Students will focus on advanced design and development features such as Web site architecture, XHTML, cascading style sheets, tables (for tabular data display), form and embedding various media types such as Flash and video. Students will apply software and design skills to realistic Web design projects. Students will explore the World Wide Web: how the Web works, common browsers, assembling Web sites and transferring local files to a remote live Web server. Adobe Dreamweaver or other current Web authoring/editor software will be used. The student will look at online design considerations, such as download times, optimizing file size, file formats, file organization and site usability.

CGT 237 Dynamic Web Design With ColdFusion (3-0) 3 Cr. Hrs.*Prerequisite:* CGT 236.

This course provides advanced Dynamic Web development utilizing the most recent versions of Adobe's ColdFusion and Dreamweaver. Topics covered will include scripting in CFML and XHTML, Web site planning, testing, security and production. Emphasis will be on managing the flow of database information with client and server side documents. Also included will be coverage of data-driven pages, forms and data-entry using Dreamweaver data connection tools, writing user-defined functions and creating dynamically data-driven Web applications.

CGT 238 Rich Internet Applications Utilizing Adobe Flex (3-0) 3 Cr. Hrs.*Prerequisite:* CGT 162.

This course will introduce the student to the concepts, design considerations and programming of Rich Internet Applications (RIAs). RIAs are a current and cutting-edge method of delivering both Web-based and desktop applications. They provide the user with a richer and more satisfying user experience than traditional HTML page-based applications. The course will demonstrate RIA concepts by covering the basics of one RIA technology—Adobe Flex.

CGT 242 Advanced Interactive Media and Game Design (3-0) 3 Cr. Hrs.*Prerequisite:* CGT 206 or CGT 212.

This is an advanced course in the creation of computer games and other interactive media projects. This course emphasizes the production process, the multidisciplinary nature of the media, integration of different components and special design problems of games and other non-linear projects. The student is instructed in advanced elements of interactive media design, integrating digital sound and video and advanced scripting techniques. Each student will produce a large scale project during the course.

CGT 244 History of Animation (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This class will give students a context for understanding the rich and unique history of animation and graphic design. In addition to learning important milestones in these fields, students will develop their eye and their aesthetic appreciation of this kind of art. Students will be exposed to the historical contingencies that lead to different developments as well as to animations and graphic design from all over the world. This course will also stimulate students in their own creative endeavors in their chosen field.

CGT 246 Motion Graphics 2—After Effects (3-0) 3 Cr. Hrs.*Prerequisite:* CGT 215.

This course will further explore the uses of audio, graphics and video in the field of motion graphics. Students will learn how object motion graphics programs can interrelate to develop informational and promotional media. Students will make extensive use of two- and three-dimensional motion and still graphics to design and create projects for video and/or multimedia applications.

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

This course is designed to increase the student's familiarity with the 3D interface, concepts of 3D space and animation. It will provide an introduction to primitives, some modifiers and box-modeling techniques. Students will be exposed to lighting, texture mapping concepts and basic animation techniques. Students will also develop skill sets to create simple animations.

CGT 250 Practical Application (3-0) 3 Cr. Hrs.*Prerequisite:* Must take one of the following courses either before or with this course: CGT 231, CGT 236, CGT 242, CGT 246, CGT 252 or ART 205.

Students will work in teams to develop and execute graphic design media for professional organizations, internal promotions and information media. They will function within work groups based on production skills. The groups are defined by track structures: Print Graphics, Web Design, Motion Graphics and Interactive Media. 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.

CGT 252 3D Animation—Animating (3-0) 3 Cr. Hrs.*Prerequisite:* CGT 254.

This class adds to the skill sets that students were exposed to in CGT 247 Introduction to 3D Animation and CGT 254 Advanced Models and Textures. In this class students will improve their understanding of the aesthetics and software technology involved in creating effective and convincing animation.

CGT 254 3D Animation—Advanced Models and Textures (3-0) 3 Cr. Hrs.*Prerequisite:* CGT 247.

This class follows up on the skill sets that students were exposed to in CGT 247 Introduction to 3D Animation. In this class students will learn modeling, texturing and lighting techniques at a more sophisticated level. These techniques will include polygon, patch, NURBS and subdivision surface modeling, creating custom textures, lighting and atmospheric effects. They will also learn the techniques of intelligent model building and issues in creating projects for a variety of delivery platforms.

CGT 256 Portfolio 3D—Reel Development (3-0) 3 Cr. Hrs.*Prerequisite:* None.*Corequisite:* CGT 242 or CGT 246.

This class prepares the student for finding a job in the field of 3D Animation or Video Production. In this course students will assemble their previous work into a professional presentation. In doing so, the student's strengths and weaknesses will be discovered and discussed. At least one project will be assigned to specifically address the individual student's portfolio needs. During the course students will create a traditional resume.

CGT 257 Portfolio Preparation (3-0) 3 Cr. Hrs.*Prerequisite:* Must take one of the following courses either before or with this course: CGT 231 or CGT 236 or CGT 242 or CGT 246.

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 portfolio/presentation. This is both a print-based and an electronic portfolio. Students will also create an identity logo, implementing it on their business card, resume and portfolio packaging. Students will explore job resources, interviewing skills and professional resources such as contracts and pricing guides.

CGT 270 Internship (3-0) 3 Cr. Hrs.*Prerequisite:* Consent of department.

This internship is designed for the exceptional Computer Graphic Technology student. This course consists of work as an intern Graphic Designer, Media Developer or similar position with an approved business or company. CGT Internships will be administered by a faculty member and approved by the CGT Department. The instructor and the business partner will jointly evaluate the student. An additional project will be developed for the client outside the normal working hours. This project will be managed by the CGT faculty member.

CGT 298 Honors Studies (3-0) 3 Cr. Hrs.*Prerequisite:* Completed (12) twelve hours of course work. Dean's List status (GPA 3.5) and consent of instructor.

An opportunity for the talented student to explore individually, in depth, under the guidance of a faculty member, a topic, issue or problem related to the field of Computer Graphics Technology. Available to Dean's List level students or equivalent and with the consent of the instructor. This course will not be listed in the schedule of classes. To enroll in this course, a candidate must submit a project plan to an instructor. The instructor will review the plan with the candidate and may recommend changes. When the project is approved, a course section will be created and the student will be given permission to enroll.

COMPUTER INFORMATION SYSTEMS

Dean: William J. Dunbar, Jr., MS

Instructors: Professor Doris McPherson, EdD

Professor William Schlick, CBET, BEE, MCSE

Associate Professor Timothy Ellis, BBA

Associate Professor Rodolfo Santiago, MBA

Adjunct Faculty

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

CIS 105 Computer Orientation (1-0) 1 Cr. Hr.*Prerequisite:* None.

This course is designed for students who have had little or no experience with computers. Topics covered in this course include introduction to the Windows-based operating systems and some word processing concepts. Basic word processing concepts will be introduced using the hands-on approach. Successful completion of this course meets the minimum requirement needed to qualify a student to use one of the college's computers during open lab hours.

CIS 115 Introduction to Computer-Based Systems (3-0) 3 Cr. Hrs.*Prerequisite:* Computer and keyboarding experience highly recommended.

This is a three-credit-hour survey course of micro, mini and mainframe computer systems. Class lectures include the following topics: Internet, Web and e-mail basics; hardware; software; file management; virus protection; backup; Internet and LAN technology; Web pages, Web sites and E-commerce; digital media; the computer industry history, products and careers; information system analysis and design; databases; computer programming; large-scale computing. Approximately one-third of the class time is spent as a hands-on course using personal computers to create Web pages using HTML/XHTML and the Microsoft Windows Operating System.

CIS 120 Software Applications (3-0) 3 Cr. Hrs.*Prerequisite:* Computer and keyboarding experience highly recommended.

This course is designed to provide hands-on experience with a current office software package for the computer. Emphasis is in the area of word processing, spreadsheets, database management and a presentation software program.

CIS 122 Microsoft Outlook (2-0) 2 Cr. Hrs.*Prerequisite:* CIS 120 or equivalent.

This course is designed to provide practical, hands-on experience with Microsoft Outlook. Microsoft Outlook is a flexible messaging and personal information management program used to send and receive e-mail, as well as to manage messages, appointments, contacts and tasks.

CIS 125 Principles of Information Security (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course examines the field of information security to prepare individuals for their future roles as business decision makers. This course provides the foundation for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system with appropriate intrusion detection and reporting features. In addition, the course also covers both the managerial and the technical aspects of this exciting discipline and addresses knowledge areas of CISSP (Certified Information Systems Security Professional) certification.

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

This is an introductory programming course where students will learn the fundamentals of program logic and design. Heavy emphasis is placed on program design techniques. Students will develop programs using top-down design, structured programming and modular development methods.

- CIS 170 Microsoft Windows (3-0) 3 Cr. Hrs.**
Prerequisite: Computer experience highly recommended.
 This course is designed to explore the features of the latest Windows desktop operating system which includes modules such as digital media, electronic messaging, networking, remote assistance, etc. In addition to studying the features that are included in Windows, the class will also emphasize customizing Windows to meet the user's needs. The students will learn to work with the desktop environment, documents and folders, toolbars and taskbar, control panel, file and Web searching tools, help files and computer maintenance and performance optimization tools. It is recommended that students have experience using computers and have proficiency in keyboard and mouse usage.
- CIS 171 Introduction to Networking (3-0) 3 Cr. Hrs.**
Prerequisite: Computer experience highly recommended.
 This course introduces students to the key concepts of data communications, telecommunications and networking. The course provides a solid introduction to networking fundamentals including key acronyms, protocols and components that are essential to understanding how networks operate today. Upon completion, the student will have a solid understanding of how information travels from a source computer to a destination computer across a complex network.
- CIS 172 Network Security Fundamentals (3-0) 3 Cr. Hrs.**
Prerequisite: CIS 171 or equivalent experience.
 This course is designed to provide students a fundamental understanding of network security principles and implementation. A variety of activities will reinforce the technologies used and principles involved in creating a secure computer network environment.
- CIS 173 Wireless Local Area Networks (3-0) 3 Cr. Hrs.**
Prerequisite: CIS 171 or equivalent experience.
 This course is designed to provide students a fundamental understanding of wireless data communication standards and technologies. It will also provide an overview of various opportunities and markets in the industry. Security aspects of each wireless technology are also explored.
- CIS 176 Visual Basic.NET (3-0) 3 Cr. Hrs.**
Prerequisite: CIS 129 and Windows experience.
 This course is designed to provide students with the knowledge and skills needed to develop applications in Microsoft Visual Basic.NET for the Microsoft .NET platform. The course focuses on user interfaces, program structure, language syntax and implementation details. It is recommended that students have experience using Microsoft Windows before taking this course.
- CIS 178 Technical Microsoft Windows (3-0) 3 Cr. Hrs.**
Prerequisite: Computer experience highly recommended.
 This course is designed to serve the needs of students and information systems professionals who are interested in learning more about the features of the Windows Professional operating system, as well as individuals who are interested in obtaining Microsoft certification on this topic. This course includes real world examples, interactive activities and hands-on projects that reinforce key concepts in preparing for Microsoft certification. It is recommended that students have experience using computers and have proficiency in keyboard and mouse usage.
- CIS 180 Spreadsheet Applications—Current Software (3-0) 3 Cr. Hrs.**
Prerequisite: CIS 120.
 This course teaches students how to analyze comprehensive problems and design a worksheet solution in light of established goals. Worksheets will be created and modified that solve problems and that are useful decision-making tools. Emphasis is on thinking through problems and developing logical solutions using a comprehensive host of features in a popular spreadsheet software package.
- CIS 185 Introduction to HTML (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course provides advanced instruction in the most important topics of HTML. The course begins with the basics of creating Web pages with graphics and links, using tables and controlling page layout with frames. Advanced topics covered include cascading style sheets, an introduction to programming with JavaScript and working with JavaScript objects and events. The student is instructed in elements of Web page design. Each student will produce a large-scale multimedia Web page as a semester project.
- CIS 211 Introduction to C++ (2-0) 2 Cr. Hrs.**
Prerequisite: CIS 129 or equivalent.
 This course is an introduction to the C++ programming language. The student will learn the basics of the C++ language up through and including control structures, functions and pointers. This course is intended for those who want a general knowledge of the C++ language.
- CIS 215 Advanced Software Applications (3-0) 3 Cr. Hrs.**
Prerequisite: CIS 120 or written approval of the CIS department. CIS 180 recommended.
 This course is designed for students who have a working knowledge of the computer and word processing, spreadsheet and database packages. Advanced features of the software are developed building on a foundation of a beginning software applications course.
- CIS 221 Advanced C++ (2-0) 2 Cr. Hrs.**
Prerequisite: CIS 211.
 This course is a continuation of the Introduction to C++ programming language course. The student will learn the advanced concepts of the C++ language up through and including operator and function overloading, inheritance, virtual functions, polymorphism, stream I/O, templates, exception handling, file processing and data structures. This course is intended for those who desire an advanced knowledge of the C++ language.
- CIS 223 Introduction to C# (3-0) 3 Cr. Hrs.**
Prerequisite: CIS 129 or equivalent.
 This course is an introduction to the C# programming language. The student will learn the basics of the C# language up through Windows programming and including creating Web server form controls. This course is intended for those who want a general knowledge of the C# language, part of the Microsoft VisualStudio.NET.

CIS 225 Database Management Systems (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course covers a popular relational database, Microsoft Access, in depth. Emphasis is on creating, editing, sorting, linking and querying databases. Forms, switchboards and custom reports will be created. Advanced topics include designing and creating a complete application system, as well as programming in SQL. Emphasis will also be on understanding the concepts behind database management system design to prepare students to be both users and developers.

CIS 235 Managing and Troubleshooting PCs (3-0) 3 Cr. Hrs.*Prerequisite:* Windows experience highly recommended.

Personal computer servicing and support will be covered within the following topics: physical and electrical concepts of motherboards, power supplies, BIOS and expansion buses; definitions and uses of microprocessors (CPUs), memory system resources and input/output devices; data storage devices and interfaces; cables, connectors and ports; basic networking fundamentals; and operating system fundamentals and DOS.

CIS 238 JavaScript (3-0) 3 Cr. Hrs.*Prerequisite:* CIS 185 or CGT 162 or a basic knowledge of HTML.

JavaScript is a powerful, object-based scripting language that can be embedded directly into HTML pages. JavaScript allows you to create dynamic, interactive Web-based applications that run completely within a Web browser. This course covers JavaScript as a client-side scripting language.

CIS 250 Systems Development and Design (4-0) 4 Cr. Hrs.*Prerequisite:* Completed (24) twenty-four credit hours of CIS courses or approval of instructor.

The student will be made aware of various tools available to the systems analyst in solving business problems. Basic tools are used by the student in the design of a system for a practical business application. Emphasis is placed on the communication between the systems analyst and the other levels of management. "Selling" of new systems and methods is stressed. Detailed steps of each phase of systems design are shown in their relationship to the overall study.

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

This course presents the fundamental principles, practices and tools necessary to effectively manage Information Technology projects. Nine project management knowledge areas will be applied including integration, scope, time, cost, quality, human resources, communications, risk and procurement. The five process groups—initiating, planning, executing, controlling and closing—will be employed in IT projects. Examples of various Microsoft projects will be utilized to help reinforce some of the concepts.

CIS 255 Introduction to LINUX (3-0) 3 Cr. Hrs.*Prerequisite:* CIS 170 or equivalent experience.

This course is designed for students pursuing careers in computer information systems or who are currently in the industry. This is an introductory course that provides an overview of the LINUX operating system. A hands-on approach to common LINUX applications is used. Topics discussed include the LINUX operating system, basic LINUX desktop and terminology, LINUX utilities and basic bash programs.

CIS 260 Introduction to UNIX (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course is designed for students pursuing careers in computer information systems or who are currently working in industry. This is an introductory course that provides an overview of the UNIX operating system. A hands-on approach to common, everyday UNIX applications is used. Topics discussed: the UNIX operating philosophy, basic UNIX commands and terminology, UNIX utilities and an introduction to shell programming.

CIS 265 Networking 1 (3-0) 3 Cr. Hrs.*Prerequisite:* CIS 235.

This course is designed to introduce the student to basic computer networking protocols, standards and systems applicable to Local Area Networks (LAN) and Wide Area Networks (WAN).

CIS 267 Home Technology Integration (4-0) 4 Cr. Hrs.*Prerequisite:* Computer experience recommended.

This course is designed to introduce the student to networking technologies, audio visual systems, automation methods and telecommunication techniques that converge in integrated home technology. The student will practice installing and maintaining a home networking system.

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

This course begins with the basics of Local Area Networks (LAN) concepts, technologies, components and protocols inherent in today's local area networking environments. Students will see how computers are connected together to form peer-to-peer and server-based networks and discover the functionality and uses of a router, bridge, switch, hub and repeater. The two most commonly used network operating systems today, Microsoft's NT and Novell's NetWare, are also introduced in this course. VLANs and the various forms of Ethernet technology such as Fast Ethernet are also explained.

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

This course introduces students to the key concepts of Transmission Control Protocol/Internet Protocol (TCP/IP). The world's largest network, the Internet, is also one of the world's most powerful communication tools. Students learn the underlying applications, components and protocols of TCP/IP and its necessary link to the Internet and how to identify TCP/IP layers, components and functions. Navigation tools, TCP/IP services and troubleshooting methodologies are also reviewed.

CIS 276 Networking 2 (3-0) 3 Cr. Hrs.*Prerequisite:* CIS 265.

This course is designed to follow the introduction to networking (Networking 1) course. Students will learn LAN configurations and protocols. Installation, management and troubleshooting Microsoft Windows server on a local area network will be covered. Additional topics on hardware, clients, domains, user accounts and printers will be covered.

CIS 290 Object-Oriented Programming With Java (3-0) 3 Cr. Hrs.
Prerequisite: CIS 129 or equivalent.

This course provides an introduction to object-oriented programming using Java. Students will develop real world application programs and Web-based applets based on object-oriented programming concepts including encapsulation, inheritance and polymorphism.

COMPUTER SERVICE

Dean: William J. Dunbar, Jr., MS
 Instructors: Professor William Schlick, CBET, BEE, MCSE
 Associate Professor Timothy Ellis, BBA
 Adjunct Faculty

COMPS 124 Introduction to Personal Computers and Software (3-0) 3 Cr. Hrs.

Prerequisite: None.

This course is designed to introduce the student to the hardware and software aspects of the personal computer. The student will learn to identify the key components of the computer. Numbering systems, digital logic, memory devices, digital circuits and systems will be introduced to the student. An introduction to operating systems will be covered. The student will learn how a computer operates and how data is organized on a hard drive, how to format disks and how to transfer data.

COMPS 126 Technical Programming (3-0) 3 Cr. Hrs.

Prerequisite: Computer and keyboarding experience highly recommended.

This course will introduce the student to the steps involved in writing a Windows program using the Visual Basic programming language. The course focuses on user interfaces, program structure, language syntax and implementation details. The student will also use the computer as a tool in problem solving.

COMPS 147 Computer and Peripheral Maintenance and Management (2-2) 4 Cr. Hrs.

Prerequisite: COMPS 124.

This course is designed to introduce the student to PC and peripheral maintenance and management. The student will learn how to maintain, upgrade and support a PC system. System improvement will center on topics of hardware, as well as software. Students will examine proper system and component care, failure-prone items, and how to isolate, locate and identify a failing component within the PC system.

CORRECTIONAL SCIENCE

Dean: William J. Dunbar, Jr., MS
 Assistant Dean: Todd Scott, PhD
 Instructors: Adjunct Faculty

Note: COR 110 is required for the Criminal Justice Associate Degree.

COR 110 Introduction to Corrections (3-0) 3 Cr. Hrs.

Prerequisite: None.

This course blends theory and operational knowledge for corrections. Students learn about the early development of corrections, sentencing, prisons, probation, parole, prisoner rights, community corrections, the role of the correctional officer and current concerns.

CRIMINAL JUSTICE

Dean: William J. Dunbar, Jr., MS
 Assistant Dean: Todd Scott, PhD
 Instructors: Assistant Professor John Courie, JD
 Adjunct Faculty

CJ 102 Organization and Administration of Law Enforcement Agencies (3-0) 3 Cr. Hrs.

Prerequisite: None.

This course will provide the student with an overview and understanding of law enforcement management and supervision to include an historical perspective and appropriate applications. Students will be exposed to managerial processes with regard to communication, decision making and problem solving that enable managers to effectively train and motivate subordinates. This course will identify how law enforcement managers effectively handle discipline, complaints, grievances, conflict and stress. This course will further identify how managers deploy resources, improve productivity and utilize performance appraisals and evaluations. Students will analyze challenges in managing law enforcement agencies in a changing environment.

CJ 104 Introduction to Security (3-0) 3 Cr. Hrs.

Prerequisite: None.

This course examines the systems and organization of security with primary emphasis on the private sector. You will learn about the role of security within society, contemporary issues in security including legal authority, enhancing forms of physical security and security in multiple industries and institutional settings. Finally, we will evaluate the challenges and standards of the modern security profession and its expanding responsibilities.

CJ 107 Police Field Operations (3-0) 3 Cr. Hrs.

Prerequisite: None.

This course is a practical study of purposes, methods, types and means of law enforcement patrol, accident prevention and effective traffic control interviewing techniques. Students will learn about crimes in progress, stress survival and use of force. Training will be received on proper methods of conducting preliminary investigations, unlawful assembly and riot control.

CJ 113 Introduction to Criminal Justice System (3-0) 3 Cr. Hrs.

Prerequisite: None.

This course covers the overall system of criminal justice from crime detection to the release and revocation of prisoners. The student will examine the role of law enforcement officers, corrections officers, probation officers, defense attorneys, prosecutors and judges as they relate to the defendant. The student will analyze the components of the system (law enforcement, courts and corrections) with emphasis on their interrelationships and expectations.

CJ 201 Criminal Investigation (3-0) 3 Cr. Hrs.

Prerequisite: None.

This course is a study of criminal investigation techniques of surveillance, collection, recording and preservation of evidence. Students will study the analysis of evidence and use of science laboratories. This course will be conducted in cooperation with other law enforcement agencies.

- CJ 209 Basic Criminalistics (2-2) 3 Cr. Hrs.**
Prerequisite: None.
 This course acquaints students with proper techniques of criminalistics. Students will have an opportunity to perform investigations in simulated crime scene situations using scientific investigative techniques involving collection, presentation and interpretation of physical evidence.
- CJ 211 Criminal Law and Procedure (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course is a study of the elements of criminal law, its purposes and function. The course will focus on the laws of arrest, search and seizure, rights and duties of officers and citizens. Students will study the elements necessary to establish crime and criminal intent, sources of criminal law, criminal responsibility and general court procedures.
- CJ 212 Criminology (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course is designed to identify the theories of crime causation, behavioral systems in crime (organized white collar crime), nature and extent of crime. Emphasis will be given to law as social control, history and philosophy of punishment and contemporary correctional techniques.
- CJ 221 Juvenile Justice (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 The purpose of this course is to study problems of juvenile delinquency and the theories that explain juvenile delinquency. Attention will be given to the work of youth agencies, legislative involvement and new approaches to the prevention of juvenile crime.
- CJ 287 Police Academy (13-40) 21 Cr. Hrs.**
Prerequisite: Consent of department before acceptance to the Police Academy.
 This course is designed to prepare recruits in the proper techniques of investigation, crime scene process, patrol procedures, operations and techniques. Emphasis will be placed on conflict mediation, report writing, detention and prosecution of prisoners. First aid, investigations, evidence collection, disaster control, civil disorders and tactical operations will be covered in the course. (40 hrs. minimum weekly)

CULINARY ARTS

Executive Director of Development & Governmental Relations: James Ryan, EdD
 Department Chair/Instructor: Assistant Professor Shawn Loving, CEC
 Instructors: Professor Joseph Decker, CMPC
 Professor Jeffrey Gabriel, CMC
 Professor Kevin Gawronski, CMC
 Professor Daniel Hugelier, CMC
 Associate Professor Marcus Haight, CEC, CEPC
 Associate Professor Brian Polcyn, CEC
 Adjunct Faculty

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

- CAP 102 Culinary Sanitation (2-0) 2 Cr. Hrs.**
Prerequisite: None.
 This course introduces the theory and practice of sanitation and safety and their relationship to the hospitality industry. Topics include the study of food-borne illnesses; biological, chemical and physical hazards; and cross-contamination as they may occur during the flow of food, personal hygiene, sanitation and safety regulations and the use and care of equipment. Hazard Analysis Critical Control Point (HACCP) and OSHA (Occupational Safety and Health Administration) guidelines and standards as they apply to the hospitality industry will be introduced. The student will be prepared to take the National Restaurant Association Sanitation Certification exam upon completion of this course.
- CAP 103 Introduction to Professional Cooking Skills and Technique (5-0) 5 Cr. Hrs.**
Prerequisite: CAP 102 or current ServSafe certification.
 This course will provide aspiring chefs a broad orientation to the culinary industry so that they will better understand what is required to succeed. Emphasis for discussion will be on professionalism, safety and sanitation standards, equipment identification, identification of food products, knife handling skills and a basic understanding of stock making and basic cooking techniques. Students will be required to purchase an initial set of hand tools for skills development. Students must receive an overall GPA of 2.5 to pass the class, as well as pass the final practical with a minimum of 2.5.
- CAP 124 Breakfast and Pantry (4-0) 4 Cr. Hrs.**
Prerequisite: CAP 103.
 This course will teach students all the necessary procedures and principles in basic cooking skills as related to breakfast and pantry cookery. Topics covered are egg, potato, meat and cereal cookery. Buffet setups and recipe procedures will be taught. Pantry cookery skills will include basic pantry operation, simple and composite salads, salad dressings, fruit trays and cold sandwich preparation.

CAP 125 Pastries 1 (4-0) 4 Cr. Hrs.*Prerequisite:* CAP 103.

This course will teach students all the necessary procedures and principles in the art of creating and producing many variations of beginning pastries. Upon successful completion of the course, the student will be able to use measuring equipment and understand equivalents and conversions; understand and know proper usage of baking and pastry terminology; properly use hand tools and machinery; regulate and use an oven properly; understand health, safety and sanitation of work areas; make pies, puddings, pastries, cakes and tortes.

CAP 128 Introduction to Food Techniques (4-0) 4 Cr. Hrs.*Prerequisite:* CAP 103.

This course will teach the basic fundamentals of cooking techniques. The student will understand the methods of basic sauces, stocks, coulis and soup preparation. The student will also learn to apply the appropriate cooking methods for specific cuts of meat, fish, poultry and game. Vegetable and starch cookery will also be included. Specialty cuisines will also be explored, which will include nutritional, vegetarian, vegan and live foods.

CAP 142 Butchery (4-0) 4 Cr. Hrs.*Prerequisite:* CAP 103.

Students will learn commercial meat preparation, its fabrication, portion control and the importance of safe sanitary butchery practice. Students will select and prepare quality meats, fish and poultry for industry consumption and retail use. Students will be prepared to perform these important tasks in a safe and sanitary environment.

CAP 143 Dining Room Service (4-0) 4 Cr. Hrs.*Prerequisite:* CAP 103.

Upon successful completion of the course, the student will be able to apply dining room procedures which include identifying the seven service types, basic hot and cold beverage services, professional ethics, good self image, dependability, attitude, dedication, understanding the art and science of employee relationships and the value of customer relationships.

CAP 144 Baking (4-0) 4 Cr. Hrs.*Prerequisite:* CAP 103.

This course explores the concepts of the different varieties of flour, the purpose and chemical reaction of other ingredients in yeast doughs and quick breads, the nutritional value of baked goods, how to use equipment for baking, proofing and fermentation of yeast products, the different mixing methods, how to increase standard recipes and costing out a recipe. In addition, students will develop hands on practical experience with bakery products by producing French breads, rolls, pan breads, rye breads, whole wheat breads, corn bread, Danish pastry, coffee cakes, muffins, biscuits, quick breads and cookies.

CAP 191 Externship (1-15) 3 Cr. Hrs.*Prerequisite:* This is an elective course and requires departmental approval for enrollment.

This course is designed to give the student additional work experience in a first hand quality run establishment. This will be done by rotating through various work stations. A weekly log book will be generated and reviewed to track the students' progress. The instructor will do a skill assessment based on the written project at the end of the semester.

CAP 215 Charcuterie (4-0) 4 Cr. Hrs.*Prerequisite:* CAP 103 and all core CAP 100 level courses.

Students in this course will acquire professional skills in variations of hors d'oeuvres and savories, seasonings, condiments, stuffed meats, curing, pickling, and smoking of meat, fish and poultry. Proficiencies in sausage-making, garde manger, pâtés, terrines, galantines and stuffed meats are also taught.

CAP 227 Restaurant Cooking and Preparation (4-0) 4 Cr. Hrs.*Prerequisite:* CAP 103 and all core CAP 100 level courses.

Students will participate in four workstations: Roast—Grill, Sauté, Entremetier (middle station) and Garde Manger—Pantry. Students will learn classical and modern cooking techniques, recipe development, importance of consistency and clean work methods.

CAP 240 Pastries 2 (4-0) 4 Cr. Hrs.*Prerequisite:* CAP 103 and all core CAP 100 level courses.

This course will cover the more intricate methods of producing fine pastries, mousses, cakes, tortes, ice cream desserts and chocolate work. The instruction covers recipe expansion and plate presentations.

CAP 241 Culinary Nutrition (2-0) 2 Cr. Hrs.*Prerequisite:* None.

Lectures on nutrition and nutrition's relationship to heart disease, cholesterol levels and body metabolism are supported by actual meal preparation. Students will learn how to apply sound nutritional theories. The course stresses preparation of healthful foods that are pleasing to both the eye and the palate in order to cater to the growing number of health-minded customers.

CAP 242 À la Carte (4-0) 4 Cr. Hrs.*Prerequisite:* CAP 103 and all core CAP 100 level courses.

Upon successful completion of this course, the student will be able to apply modern techniques in the preparation and presentation of food using sauté and grill techniques. Students will gain an understanding of the entremetier, garde manger and food storage stations. Proper lock-down and clean up procedure will be taught. Preparation and presentation of salads, cold meats, sandwiches as well as plate presentation will also be taught.

CAP 243 Storeroom Operations (3-0) 3 Cr. Hrs.*Prerequisite:* CAP 103 and all core CAP 100 level courses.

Upon successful completion of this course, the student will have a basic knowledge of purchasing, receiving and inventory control through the use of the computer and the application of computer software which will enhance his/her ability to run a more effective and profitable kitchen operation.

CAP 244 International and American Cuisine (8-0) 8 Cr. Hrs.*Prerequisite:* CAP 103 and all core CAP 100 level courses.

Students will learn the culture, history and terminology of various American regional and international cuisines. In addition, they will study traditional and contemporary cooking techniques. Students will prepare à la carte service entrees, salads, appetizers, soups and desserts based on industry trends as well as preparing buffet presentations. The menu items will be offered to the public and served in the American Harvest Restaurant.

CAP 247 Banquets and Catering (2-2) 3 Cr. Hrs.*Prerequisite:* CAP 103.

Upon successful completion of this course, the student will demonstrate knowledge of a variety of catering operations including planning, organizing, marketing and executing receptions, parties and special events. Students must participate in two events. This is an elective course.

CAP 260 Competitive Ice Carving (2-2) 3 Cr. Hrs.*Prerequisite:* None.

This course will present safety procedures related to ice handling, tools and equipment used in ice carving. Qualities of carving ice, proper care and sharpening of tools are also covered. Use of templates and production of basic carvings will be accomplished. This is an elective course.

CAP 265 Advanced Competitive Ice Carving (1-3) 3 Cr. Hrs.*Prerequisite:* CAP 260 or consent of department.

Advanced carving ability incorporating joining, assembling and multi block will be covered. This course is for students who wish to further their culinary artistry by entering individual or team competitive ice carving events. This is an elective course.

CAP 267 Chocolatier (4-0) 4 Cr. Hrs.*Prerequisite:* CAP 103 and CAP 125 or consent of department.

This course is designed to introduce the student to the handling techniques of chocolate. Students will learn to use artistic pieces to decorate cakes and adorn pastry buffets. Students will also be exposed to modeling and sculpting of chocolate centerpieces and chocolate truffle making. This is an elective course.

CAP 295 Salon Competition 1 (2-2) 3 Cr. Hrs.*Prerequisite:* Selection to participate is approved by the Chef Instructors.

Students will participate in a class which will build and refine their culinary skills. This first course will introduce the students to the requirements necessary to successfully compete in culinary competition. Students selected for this class may form the College Culinary Team. A number of field trips and training sessions, off campus, will be scheduled. This is an elective course.

CAP 297 Salon Competition 2 (2-3) 4 Cr. Hrs.*Prerequisite:* Approval to participate is made by the Chef Instructor and satisfactory completion of CAP 295.

A continuation of Salon Competition 1 for students who have decided to compete at state, national and/or international level culinary competition(s). The students must have demonstrated proficiency for competition in Salon Competition 1 to be approved as participants in this advanced course. Selected students form a College Culinary Team and, as such, can represent Schoolcraft College in culinary competition(s).

CULINARY BAKING AND PASTRY ARTS

Executive Director of Development & Governmental Relations: James Ryan, EdD
Department Chair/Instructor: Assistant Professor Shawn Loving, CEC
Instructors: Professor Joseph Decker, CMPC
Professor Jeffrey Gabriel, CMC

CBPA 103 Introduction to Baking and Pastry Skills and Techniques (2-0) 2 Cr. Hrs.*Prerequisite:* CAP 102.

This course will provide a broad orientation to aspiring bakers and pastry chefs in order to offer a better understanding of the specialized fields of baking and pastry. Discussions will include professionalism, safety and sanitation, equipment identification, function and maintenance. The fundamental baking processes, handling and function of ingredients will also be covered.

CBPA 125 Pastries (5-15) 20 Cr. Hrs.*Prerequisite:* CBPA 103.

Upon successful completion of this course, students will have acquired professional skills in the art of pastry including recipe expansion and costing, use of hand tools and equipment, safety, sanitation and organization skills. Products introduced to the aspiring students include pies and tarts; French pastry; individual pastries; classical and contemporary tortes; warm, cold and frozen desserts; contemporary plated desserts; miniature pastries; chocolates; cake decoration; and decorative centerpieces.

CBPA 144 Baking (3.75-11.25) 15 Cr. Hrs.*Prerequisite:* CBPA 103.

Upon successful completion of this course, students will have acquired professional skills in the art of baking. This course will cover basic elements including costing out recipes, expanding and reducing recipe sizes, proper usage of bakery equipment, using straight dough methods to produce French baguettes, soft and hard rolls, pan breads and many hearth breads, as well as production of various cookies, quick breads, muffins and biscuits. Advanced techniques will be taught including fermentation processes and how they contribute to flavor, mixing methods, the functionality of ingredients, and the study of various flours, as well as chemical reactions that take place while baking. The production of artisan breads, laminated doughs, savory baked goods, specialty baked goods, breakfast pastries, high ratio cakes and decorative centerpieces will be important aspects of this course.

CULINARY MANAGEMENT

Executive Director of Development & Governmental Relations: James Ryan, EdD
Department Chair/Instructor: Assistant Professor Shawn Loving, CEC
Instructors: Adjunct Faculty

CM 107 Culinary Management—Food and Culture (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course is a cross cultural, interdisciplinary investigation in the relationships between the foods humans prepare and consume and the cultures they build. The course will demonstrate the ways intellectual, social, religious and political events affect the preparation of food in various civilizations and at various periods in human history.

CM 109 Hospitality Law (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course provides students with an overview of the general concepts of law as it relates to the hospitality industry. Contract, property, employee, guest, insurance, food and beverage responsibility and business operating structure issues will be covered. The emphasis will be on restaurant law, but applicability to other aspects of hospitality law, such as catering and hotel management, will be explored.

CM 203 Restaurant Concepts and Design (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course will explore new concepts for the entrepreneur in the restaurant industry. New trends and restaurant décor along with facility layout and design will be emphasized.

CM 210 Wine and Spirits (3-0) 3 Cr. Hrs.*Prerequisite:* Students must be at least 18 years of age to take this course [MCL 436.1703 Section 703, (10)].

This course will provide comprehensive, detailed information about the origins, production and characteristics of all types of alcoholic beverages, including beer, wine and distilled spirits, such as whiskies and brandies. Attention will be given to table, sparkling and dessert wines. The student will gain an understanding of regional beverage styles of North America, the British Isles, France, Italy, Germany, the Iberian Peninsula and the Southern Hemisphere. Production practices and regulations, climatic and political influences, beverage characteristics and deductive evaluation methods will be studied. This is an elective course.

DESIGN

Dean: William J. Dunbar, Jr., MS

Instructors: Professor Catherine Ferman, MS, PE
Adjunct Faculty**DSGN 180 Machine Elements and Design (3-2) 4 Cr. Hrs.***Prerequisite:* CAD 106 and MATH 113.

This course is designed to introduce the student to the various machine elements and the mechanical/working relationship between elements that make up a mechanism. The machine element concepts covered include fasteners, gears, cams, linkages and bearings. The introduction to the design process includes problem definition, needs analysis, design/performance objectives, cost analysis, design alternatives, feasibility analysis and design selection.

DSGN 250 Tool, Die and Fixture Design (2-4) 4 Cr. Hrs.*Prerequisite:* CAD 107, DSGN 180 and CAD 211 or CAD 221.

Tool, Die and Fixture Design is a specialized phase of mechanical or manufacturing engineering. This course will cover the development of jigs and fixtures, work holding devices and press working tools such as cutting dies, piercing dies, forming dies and drawing dies. Emphasis is placed on the types of tools, supporting and locating principles, clamping methods, construction methods, theory of metal cutting and metal forming. 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 design customs jigs, fixtures, dies and die types. ANSI/ASME Standards are followed for the creation of solid models, multi views, drawings, tolerances and dimensioning practices.

DSGN 280 Capstone Project (3-2) 4 Cr. Hrs.*Prerequisite:* MET 102, MET 114, MFG 105, CAD 107 and DSGN 180 or consent of instructor.

This course utilizes a multidiscipline capstone project to integrate the concepts of design, manufacturing and material science. Working as a team, a design problem will be presented requiring solutions which involve the management of the design process using the systematic engineering design process. The steps include project planning, research, modeling, analysis, prototype building, process mapping and material selection. The results of the project will be reported in written and oral format and presented to a panel for evaluation. Faculty directed study will be provided.

ECONOMICS

Dean: Cheryl Hawkins, MS

Assistant Dean of Sciences

Instructors: Professor Frederick Galperin, EdS

Professor Cedric Howie, MS

Professor Prantosh Nag, PhD

Adjunct Faculty

ECON 103 Introductory Economics (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course is a survey of the macroeconomic concerns of national income determinations, business cycles, unemployment, inflation and both fiscal and monetary policies to stabilize the aggregate economy. In addition, this course explores the microeconomic fundamentals of demand, supply, elasticity, consumer choice, the production costs of output and resource allocation of firms operating under various market structures and the international economy.

ECON 201 Principles of Macroeconomics (4-0) 4 Cr. Hrs.*Prerequisite:* MATH 053 or equivalent.

Macroeconomics refers to that portion of economic analysis which is concerned with behavior of economy-wide issues, e.g., inflation, unemployment, etc. By means of theoretical reasoning and empirical research, economists have identified a number of relationships or principles which are useful in explaining and predicting macroeconomics, their application to an understanding of current economic problems and their implication for economic policy. The intent of the course is to provide the student with a basic level of economic literacy essential for a well-informed citizenship in the years ahead. In economics, perhaps more than any other comparable discipline, things are not always what they appear to be. Indeed, many economic problems both past and present have resulted from the misunderstanding of fundamental economic relationships.

ECON 202 Principles of Microeconomics (4-0) 4 Cr. Hrs.*Prerequisite:* MATH 053 or equivalent.

This course provides students with an introduction to the theory of consumer behavior, production theory, market structure in product and resource/factor markets and microeconomic policy.

ELECTRONIC TECHNOLOGY

Dean: William J. Dunbar, Jr., MS

Instructors: Professor James Kramer, MS

Professor William Schlick, CBET, BEE, MCSE

Adjunct Faculty

ELECT 131 Basic Measurement and Reporting Skills (1-2) 3 Cr. Hrs.

Prerequisite: None.

This course is designed for students who are pursuing a career in electronics or electronic related fields. The student will receive instruction on how to conduct career research and in the proper use of basic measuring instruments, such as the Digital Multimeter (DMM), the Volt-Ohm Meter (VOM), the sine wave generator and the oscilloscope. In the electronics laboratory, the student will make measurements, record data, maintain a logbook and develop conclusions based on the results. In the computer laboratory, students will learn how to organize and report their findings utilizing word processing, spreadsheet and presentation software.

ELECT 133 Introduction to Battery Technology (3-0) 3 Cr. Hrs.

Prerequisite: None.

Understanding batteries in today's commercial applications is becoming increasingly important. Batteries provide a means of storing energy for use in portable electronic devices ranging from personal entertainment to advanced medical, industrial applications, as well as a means to reduce emissions in electric and hybrid electric vehicles. The need to derive energy from solar, wind and other renewable forms of energy and store it underscores the importance of advanced energy storage solutions to the emerging global economy. This course will cover the principles and operation of batteries. The contrast between secondary and primary batteries will be studied. Specialized battery systems as well as fuel cells will also be covered.

ELECT 137 DC Circuits and Mathematical Modeling (2-3) 5 Cr. Hrs.

Prerequisite: MATH 053 or one year of high school algebra.

Corequisite: ELECT 131.

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 138 AC Fundamentals and Mathematical Modeling. Laboratory experiments and project(s) are utilized to teach the use of test equipment and to demonstrate the principals taught in lecture.

ELECT 138 AC Circuits and Mathematical Modeling (2-3) 5 Cr. Hrs.

Prerequisite: ELECT 137.

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 utilized to teach the use of common test equipment and to demonstrate the principals taught in lecture.

ELECT 139 Diodes and Transistors (1-2) 3 Cr. Hrs.

Prerequisite: None.

Corequisite: ELECT 138.

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.

ELECT 144 Introduction to Microcontrollers (1-2) 3 Cr. Hrs.

Prerequisite: COMPS 126.

This course will introduce the student to the concepts of microcontroller architecture, block components, numbering systems and microprocessor program editing software. Representative microcontroller commands and elementary programming of a microcontroller will be studied. Students will work with hands-on experiments, which they will learn to expand and customize for their personal needs.

ELECT 145 Fluid Power (2-2) 4 Cr. Hrs.

Prerequisite: MATH 053 or equivalent.

This course emphasizes the understanding of the fundamentals of hydraulics and pneumatics. In this course, students will design, analyze, operate and maintain fluid power systems. Emphasis is placed on understanding the physics of fluids and how energy, power and force affect the devices that make up a hydraulic and pneumatic system.

ELECT 215 Operational Amplifiers and Linear Integrated Circuits (2-2) 4 Cr. Hrs.

Prerequisite: ELECT 139.

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, communication circuits and data conversion circuits.

ELECT 218 AC/DC Motors (1-2) 3 Cr. Hrs.

Prerequisite: ELECT 137.

Corequisite: ELECT 138.

This course is designed to provide the student with a comprehensive understanding of motors used in industry. Principles and theories of magnetic fields and mechanical rotation will be covered. Basic through complex theories of rotor phase angles and effects on torque will be discussed. Magnetic and inductive theories, characteristics of various types of motors and speed control used in DC and AC type motors will be studied.

ELECT 219 Digital Logic Circuits (2-2) 4 Cr. Hrs.*Prerequisite:* ELECT 139.

This course introduces students to Boolean algebra (emphasizing NAND and NOR) and various medium scale integrated circuits like exclusive or encoders, decoders, multiplexers, adders, counters and shift registers. Also explored are memory (core, RAM and ROM) and bidirectional line drivers. The laboratory work coincides with experiments utilizing digital integrated circuits.

ELECT 228 Electronic Troubleshooting (1-2) 3 Cr. Hrs.*Prerequisite:* ELECT 215 and ELECT 219.

This course is a capstone which will apply the theory and practical application of the preceding electronics courses. The techniques of fault isolation and troubleshooting in solid state, analog, digital, motors and biomedical equipments and systems will be explored.

ELECT 251 Programmable Logic and Industrial Controls (2-2) 4 Cr. Hrs.*Prerequisite:* Windows experience highly recommended.

The student will use Programmable Logic Controller (PLC) and Allen-Bradley RSLogix software to convert typical hardwired electrically controlled circuitry used in industry to a computer-controlled system. Emphasis will be placed on understanding the purpose and operating features of a PLC including input/output addressing and associated commands used in the PLC program. A computer will be used to write and download a program to be tested for logical control. The student will use Linx software and networking to learn communication procedures for downloading a PLC program to the controller as well as the types of cable connections used. PanelView will be reviewed to understand its real time monitoring capability of the software. Various PLC commands will be used including internal relays, ON and OFF timers, UP and DOWN counters, subroutines, program control and math instructions.

ELECT 252 Programmable Logic System Design (2-2) 4 Cr. Hrs.*Prerequisite:* ELECT 251 or equivalent PLC experience.

The student will use Allen-Bradley RSLogix 500 software to be interfaced with RSLinx communication software and PanelView for control panel applications. Data Highway Plus will be used for network communications with other Programmable Logic Controllers (PLC) components. Emphasis will be placed on incorporating and combining programming commands, timers, counters, subroutines, data manipulation and mathematics into control process systems. Installing, wiring and networking PLC systems will be covered. Students will learn how to use troubleshooting features of the PLC software to find and diagnosis hardware, configuration and programming problems.

ELECT 253 Individual Student Projects (1-2) 3 Cr. Hrs.*Prerequisite:* By midterm of the previous semester the student must submit a written proposal for approval by department.

Students will plan, organize, assemble or fabricate and test the project of their choice or one suggested by the instructor. Under guidance of the instructor, the electronic laboratory will be made available three hours a week in which time the student may perform tests.

EMERGENCY MEDICAL TECHNOLOGY

Dean: William J. Dunbar, Jr., MS

Assistant Dean: Todd Scott, PhD

Instructors: Adjunct Faculty

EMT 115 Emergency Medical Technology—Basic (7-6) 10 Cr. Hrs.*Prerequisite:* None.

The Basic Emergency Medical Technician course is a Michigan Department of Community Health 264.5 hour-approved course that provides the information and experience necessary to prepare the student to take the National Registry Basic EMT Certification Exam. 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 setting along with observations and experience that will be gained in a clinical and/or internship setting.

EMT 120 Emergency Medical Technology—Specialist (4-3) 5.5 Cr. Hrs.*Prerequisite:* EMT 115.

Emergency Medical Technology-Specialist is an approved course that provides the information and experience necessary to prepare the student to take the National Registry of Emergency Medical Technician-Intermediate Licensing Examination. All procedures for the course are evaluated by a physician advisor. This course is designed to teach students how to deal with more complex medical emergency situations than are handled in the basic EMT course (EMT 115). Students develop advanced skills in diagnosis and emergency treatment short of those rendered by physicians or by allied health personnel under the direct supervision of the physician.

EMT 210 Paramedic Technology 1 (8-4) 10 Cr. Hrs.*Prerequisite:* EMT 115.

This course provides the information and experience necessary to prepare the student for EMT 220. In addition, the EMT 210 course is designed to give students extensive practical application along with the knowledge and skills acquired in the EMT and/or Specialist class. This course includes advanced practice with a focus on preparatory entry-level paramedic skills. Content areas are covered in lectures, practical skills practiced in a laboratory setting along with observations and practical experience that will be gained in the clinical setting. This course is a Michigan Department of Community Health EMS and Trauma Systems section approved program leading to licensing as an Advanced Emergency Medical Technician-Paramedic; Michigan Department of Community Health EMS and Trauma Systems section course. The student will be eligible for the National Registry Examination upon successful completion of all three semesters of the Paramedic Program.

EMT 220 Paramedic Technology 2 (8-5) 10.5 Cr. Hrs.*Prerequisite:* BIOL 236 and EMT 210.

This course provides the information and experience necessary to prepare the student for EMT 230. In addition, the EMT 220 course is designed to give students extensive practical application along with the knowledge and skills acquired in the EMT 210 course. This course outline includes advanced practice with a focus on patient assessment and medical emergencies. Content areas are covered in lectures, practical skills practiced in a laboratory setting along with observations and practical experience that will be gained in the clinical setting. This course is a Michigan Department of Community Health EMS and Trauma Systems section approved program leading to licensing as an Advanced Emergency Medical Technician-Paramedic; Michigan Department of Community Health EMS and Trauma Systems section course. The student will be eligible for the National Registry Examination upon successful completion of all three semesters of the Paramedic Program.

EMT 230 Paramedic Technology 3 (6-6) 9 Cr. Hrs.*Prerequisite:* EMT 220.

This course provides the information and experience necessary to prepare the student for the National Registry Examination. In addition, the EMT 230 course is designed to give students extensive practical application along with the knowledge and skills acquired in EMT 210 and 220. This course outline includes advanced practice with a focus on patient assessment and traumatic emergencies in addition to dealing with patients with special considerations. Content areas are covered in lectures, practical skills practiced in a laboratory setting along with observations and practical experience that will be gained in the clinical and internship setting. This course is a Michigan Department of Community Health EMS and Trauma Systems section approved course leading to licensing as an Advanced Emergency Medical Technician-Paramedic; Michigan Department of Community Health EMS and Trauma Systems section leading to licensing as an Advanced Emergency Medical Technician-Paramedic. The student will be eligible for the National Registry Examination upon successful completion of all three semesters of the Paramedic Program.

ENGINEERING

Dean: William J. Dunbar, Jr., MS

Instructors: Professor Catherine Ferman, MS, PE
Associate Professor Lisa Zacccone, MS, PE
Adjunct Faculty

ENGR 100 Introduction to Engineering and Technology (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course is designed to introduce students to the fields of engineering and engineering technology. Students will learn about the different engineering disciplines and will participate in projects related to engineering. Electronic portfolios will be introduced in this course.

ENGR 201 Statics (3-0) 3 Cr. Hrs.*Prerequisite:* PHYS 211.

This course is designed to teach the student vector analysis of forces and moments in two- and three-dimensions. Equilibrium of particles and rigid bodies will be determined. Beams and trusses will be analyzed. Problems involving friction, center of gravity, moments of inertia and virtual work will be solved. This course is designed as an engineering transfer course. Transferability of this course into the desired engineering program should be confirmed with the transfer office.

ENGR 202 Mechanics of Materials (3-0) 3 Cr. Hrs.*Prerequisite:* ENGR 201.

This course is designed to teach the students the fundamental concepts related to stress and strain of deformable bodies and their application to mechanical structures. This course is designed as an engineering transfer course. Transferability of this course into the desired engineering program should be confirmed with the transfer office.

ENGR 203 Dynamics (4-0) 4 Cr. Hrs.*Prerequisite:* ENGR 201.

This course is designed to teach the student kinematics and kinetics of particles and rigid bodies including methods of motion relative to translating and rotating reference frames, force and acceleration, work and energy, impulse and momentum and vibrations. This course is designed as an engineering transfer course. Transferability of this course into the desired engineering program should be confirmed with the transfer office.

ENGLISH

Dean: Cheryl D. Hawkins, MS

Instructors: Professor Omar Addi, MA
Professor Sumita Chaudhery, PhD
Professor Steven Dolgin, DA
Professor Mark Harris, MA
Professor Faye Schuett, PhD
Professor Ida Simmons-Short, MA
Associate Professor Steven Berg, PhD
Associate Professor Archana Maheshwari, MA
Assistant Professor Helen Ditouras, MA
Assistant Professor Elzbieta Rybicka, MA
Adjunct Faculty

ENG 050 Modern English Grammar (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This is the first of a two-part sequence (ENG 050/055) designed to prepare students for composition courses. The course content focuses on major grammatical concepts and writing. A grade of 2.0 or better in ENG 050 is necessary to enter ENG 055.

ENG 055 Building Writing Skills (3-0) 3 Cr. Hrs.*Prerequisite:* Satisfactory placement test score or minimum grade of 2.0 in ENG 050 or ESL 052.

This is the second of a two-part sequence (ENG 050/ENG 055 or ESL 052/ENG 055) designed to prepare students for composition courses. The course focuses on the writing process, paragraph development, revision, and essay structure. A grade of 2.0 or better in ENG 055 is necessary to enter ENG 101.

- ENG 100 Communication Skills (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course deals with a variety of written and oral communication skills. Students learn about the application of interpersonal and intrapersonal communication, including but not limited to presentations, interviews, collaborative work, and technological tools as used in personal, social and career communications.
- ENG 101 English Composition 1 (3-0) 3 Cr. Hrs.**
Prerequisite: Satisfactory high school English background or ENG 055 with minimum grade of 2.0.
 This course teaches students to prepare and write a number of clear, well-developed essays, using exposition and other rhetorical modes. This process assists students to build writing strategies and methodologies for college and professional writing.
- ENG 102 English Composition 2 (3-0) 3 Cr. Hrs.**
Prerequisite: ENG 101 with a minimum grade of 2.0.
 This course teaches students to conduct and integrate research and write the research paper. This process assists students in developing research and writing strategies to use in a variety of college and professional contexts.
- ENG 106 Business English (3-0) 3 Cr. Hrs.**
Prerequisite: ENG 100 or ENG 101 with a minimum grade of 2.0 and basic computer skills.
 This course examines verbal and nonverbal communication theories and methods relating to business. Students write business documents and apply a variety of methods for collecting and presenting data.
- ENG 107 Introduction to Journalism (3-0) 3 Cr. Hrs.**
Prerequisite: ENG 101 with a minimum grade of 2.0 or consent of instructor. ENG 102 recommended.
 This course is an introductory survey of mass media such as newspapers, magazines (print and online), radio, TV, advertising, public relations, and the World Wide Web. The course will emphasize newspapers and magazines while recognizing news and feature values, discovering audience, reporting, writing, planning content and format.
- ENG 116 Technical Writing (3-0) 3 Cr. Hrs.**
Prerequisite: ENG 100 or ENG 101 with a minimum grade of 2.0.
 This course provides practical instruction in speaking, listening and technical writing for business and industry. Students learn to apply the principles of organizational structure, resume writing, job hunting, interviewing and technical reporting.
- ENG 170 Modern Literature By and About Women (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 Reading and discussion of fiction, poetry, drama and prose by women writers of the 20th and 21st centuries. Students use literary analysis to explore women's literature as well as the experiences, roles, and art of modern women and women writers.
- ENG 200 Introduction to Film (4-0) 4 Cr. Hrs.**
Prerequisite: ENG 101 with minimum grade of 2.0 or consent of instructor. ENG 102 recommended.
 This course studies how film accomplishes its purposes, whether as simple entertainment, social commentary or complex art. Students will view and discuss selected films and explore the history, criticism, aesthetics and technique of film.
- ENG 203 Children's Literature (3-0) 3 Cr. Hrs.**
Prerequisite: ENG 101 with minimum grade of 2.0 or consent of instructor. ENG 102 recommended.
 This course surveys literature for children and adolescents in K–12 curriculum. By reading, analyzing, and researching various genres of children's literature throughout the world, students gain a historical perspective and establish standards of critical evaluation.
- ENG 205 Creative Writing (3-0) 3 Cr. Hrs.**
Prerequisite: ENG 101 with minimum grade of 2.0 or consent of instructor. ENG 102 recommended.
 Student creative writing may include work in poetry, short stories, and drama. Some assignments will reflect student interests and abilities, while others may encourage students to expand their skills and discover new topics. Class activities will include critical evaluation of student work in individual conferences and writing workshops.
- ENG 206 Creative Writing (3-0) 3 Cr. Hrs.**
Prerequisite: ENG 101 with minimum grade of 2.0 or consent of instructor. ENG 102 recommended.
 Student creative writing may include work in poetry, short stories, and drama. Some assignments will reflect student interests and abilities, while others may encourage students to expand their skills and discover new topics. Class activities will include critical evaluation of student work in individual conferences and writing workshops. The course may include work on individual writing projects.
- ENG 221 Advanced Composition (3-0) 3 Cr. Hrs.**
Prerequisite: ENG 101 with minimum grade of 2.0 or consent of instructor. ENG 102 recommended.
 This course provides advanced composition theory and practice for students to develop writing skills beyond ENG 101 and ENG 102. It emphasizes the writing process, revision strategies, and standard research techniques. It also encourages peer collaboration and evaluation to reflect professional writing.
- ENG 243 Introduction to Literature—Short Fiction (3-0) 3 Cr. Hrs.**
Prerequisite: ENG 101 with minimum grade of 2.0 or consent of instructor. ENG 102 recommended.
 Using elements of fiction, this course develops standards for critical evaluation to increase understanding and appreciation of short stories. Students read and analyze short fiction and its forms from early to modern times.
- ENG 244 Introduction to Literature—Poetry (3-0) 3 Cr. Hrs.**
Prerequisite: ENG 101 with minimum grade of 2.0 or consent of instructor. ENG 102 recommended.
 This course develops standards for critical evaluation to increase the understanding and appreciation of poetry. Students read and analyze poetry and its forms from early to modern times.
- ENG 245 Introduction to Literature—Drama (3-0) 3 Cr. Hrs.**
Prerequisite: ENG 101 with minimum grade of 2.0 or consent of instructor. ENG 102 recommended.
 Students will read and discuss a number of plays, especially those written since 1850. This course is designed to develop standards for critical evaluation and increase understanding and appreciation of drama as a literary form.

- ENG 246 Introduction to Literature—Novel (3-0) 3 Cr. Hrs.**
Prerequisite: ENG 101 with minimum grade of 2.0 or consent of instructor. ENG 102 recommended.
 The course examines classic, unique, and emerging examples of novels. Students use elements of fiction to critically evaluate novels, thereby expanding their understanding and appreciation for prose fiction.
- ENG 248 Introduction to Literature—Shakespeare (3-0) 3 Cr. Hrs.**
Prerequisite: ENG 101 with minimum grade of 2.0 or consent of instructor. ENG 102 recommended.
 This course develops standards for critical evaluation using elements of drama and poetry. Students read and analyze selected Shakespearean works to understand and appreciate one of Western civilization's greatest playwrights.
- ENG 251 American Literature from Colonial Times to the Civil War (3-0) 3 Cr. Hrs.**
Prerequisite: ENG 101 with minimum grade of 2.0 or consent of instructor. ENG 102 recommended.
 Students read and analyze significant literary works that illustrate the changing currents of thought and expression that dominated American life from colonial times to the Civil War.
- ENG 252 American Literature from the Late Nineteenth Century to the Present (3-0) 3 Cr. Hrs.**
Prerequisite: ENG 101 with minimum grade of 2.0 or consent of instructor. ENG 102 recommended.
 Students read and analyze significant literary works that illustrate the changing currents of thought and expression that have dominated American life from the Civil War to the present.
- ENG 275 World Literature—Casebook Studies of Universal Themes (3-0) 3 Cr. Hrs.**
Prerequisite: English 101 with minimum grade of 2.0 or consent of instructor.
 This course will examine a variety of international literary works pertaining to common, literary themes. Such themes will be explored through poetry, drama, fiction and/or non-fiction. Works not originally written in English will be read in translation.
- ENG 280 The Nature of Language (3-0) 3 Cr. Hrs.**
Prerequisite: ENG 101 with minimum grade of 2.0 or consent of instructor. ENG 102 recommended.
 This course is an investigation of the historical background and current status of the English language, including problems such as the changing nature of language, dialect differences, origins of standards for correctness and attempts to describe the language grammatically.

ENGLISH AS A SECOND LANGUAGE

Dean: Cheryl D. Hawkins, MS
 Associate Dean: Deborah B. Daiek, PhD
 Instructors: Adjunct Faculty

- ESL 051 English Language Skills—Communication, Speaking and Listening (3-0) 3 Cr. Hrs.**
Prerequisite: Appropriate placement test score.
 This course is part of a series of courses designed to introduce non-native speakers of English to the skills they will need to succeed in an academic environment where English is spoken. Students will practice and develop verbal English language skills and will study vocabulary and techniques for building one's vocabulary.

- ESL 052 English Grammar and Basic Writing Skills (3-0) 3 Cr. Hrs.**
Prerequisite: Appropriate placement test score.
 This course is part of a series of courses designed to introduce non-native speakers of English to the skills they will need to succeed in an academic environment where English is spoken. The content of this course focuses on major grammatical concepts including parts of speech, sentence functions and sentence patterns.
- ESL 100 English Communication Skills (3-0) 3 Cr. Hrs.**
Prerequisite: Appropriate placement test score or successful completion of ESL 052.
 This course is part of a series of courses designed to introduce non-native speakers of English to the skills they will need to succeed in an academic environment where English is spoken. The focus of this course is on high level grammar, communication skills including listening and vocal features (such as volume and intonation) and nonverbal communication skills.
- ESL 101 English Writing and Reading Skills 1 (3-0) 3 Cr. Hrs.**
Prerequisite: Appropriate placement test score or successful completion of ESL 052.
 This course is part of a series of courses designed to introduce non-native speakers of English to the skills they will need to succeed in an academic environment where English is spoken. Students will develop and practice writing and critical thinking skills in preparation for English 050, 055 or 101. A grade of 2.0 or better and the previous ESL instructor's recommendation is necessary to enter the general English classes.
- ESL 102 English Writing and Reading Skills 2 (3-0) 3 Cr. Hrs.**
Prerequisite: A grade of 2.0 or better in ESL 101 is required to enter ESL 102.
 This course is a continuation of the ESL 101 course. It is designed for non-native students who need further composition experience in preparation for English 050, 055 or 101. The primary focus of this course will be to continue building grammatical and writing competencies as well as increase critical thinking and reading comprehension skills.

ENVIRONMENTAL STUDIES

Dean: William J. Dunbar, Jr., MS
 Instructors: Professor Diane O'Connell, MS
 Adjunct Faculty

- ENVR 107 Soil Mechanics (3-2) 4 Cr. Hrs.**
Prerequisite: MATH 113.
 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. Soils are classified using the US Department of Agriculture Classification System, the Unified Soil Classification System, and the American Association of State Highway and Transportation Officials System. Other topics include the fundamentals of groundwater, sanitary landfills and remediation and soil erosion.

ENVR 206 Environmental Law (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course provides an introduction to federal environmental laws. Topics include common law, toxic torts, federalism, statutory law, regulatory strategies, private property and takings, public trust and international environmental law. Federal environmental laws include National Environmental Policy Act; Clean Air Act; Clean Water Act; Resource Conservation and Recovery Act; and Comprehensive Environmental Response, Compensation and Liability Act. Regulatory strategies, such as technology based standards, road block statute, harm based standards and pollution trading are examined.

ENVR 230 Energy Resources (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course presents an overview of nonrenewable and renewable energy resources. Energy resources derived from the earth provide the majority of our energy needs. These resources include fossil fuels (petroleum, natural gas and coal) and radioactive ores used to generate nuclear power. Nonrenewable energy resources are finite and may be used up in the future. Extraction of these geologic materials can result in negative environmental impacts if careful management strategies are not employed. Energy needs for our industrial economy may be met using both renewable and alternative energy sources, which include hydro power, solar power, geothermal power, biomass and wind power. Alternative fuels may be used in the transportation sector. Other course topics include energy conservation, air pollution, energy and sustainable development and energy and global climate change.

ENVR 232 Field Experience (0-3) 3 Cr. Hrs.*Prerequisite:* Completion of at least three courses in the Environmental Studies Program or the Environmental Science Certificate Program.

The field experience class provides students with an opportunity to apply the skills and knowledge learned in the Environmental Studies Program to off-campus work experience in government, private industry or nonprofit organization. Students can also meet the course requirements by completing a service learning project that incorporates an environmental issue. Class discussions include sources of employment in the environmental profession, job applications and interviews and preparing resumes.

ENVR 235 Geographic Methods Applied to Environmental Problems (3-0) 3 Cr. Hrs.*Prerequisite:* GEOG 135, GEOG 225, and ENVR 107.

This course is a capstone course for the Environmental Studies Program and applies geographic research methods and geotechnology to solve environmental problems. Development of a project topic, construction of a hypothesis and selection of a research strategy will be accomplished through consultation and faculty-directed study. Synthesis of geotechnology (geographic information systems, global positioning systems, aerial photography and remote sensing) with research methodology is the focus of this course.

FIRE TECHNOLOGY

Dean: William J. Dunbar, Jr., MS

Assistant Dean: Todd Scott, PhD

Program Coordinator: John Smilnak, BS

Instructors: Adjunct Faculty

FIRE 112 Fire Fighter 1—Basic Fire Suppression (6-4) 10 Cr. Hrs.*Prerequisite:* Michigan state law mandates that persons taking this course must be at least 18 years of age and have a valid Michigan driver's license.

This course provides an introduction to basic fire suppression, prevention procedures and skill development. FIRE 112 is provided as the first of two courses, which constitute the equivalent of the Basic Fire Academy and is offered for students who prefer to attend on a part-time basis. This course is for students who are currently employed by a Michigan Fire Marshal recognized fire department or currently seeking employment and/or volunteer in a recognized fire district. This course meets the state-mandated requirements for preparing students to take the exam for state certification for entry-level on-call or volunteer fire fighters.

FIRE 119 Fire Fighter 2—Advanced Fire Suppression (7-3) 10 Cr. Hrs.*Prerequisite:* FIRE 112 with a grade of 2.0 or higher. 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 Fighter 2 is the second of two courses which together make up the equivalent of the Basic Fire Academy and is offered for students who prefer to attend on a part-time basis. This course deals with advanced fire suppression techniques, including prevention procedures and skill development. This course is for students who are currently employed by a Michigan Fire Marshal recognized fire department or currently seeking employment and/or volunteer in a recognized fire district. This course meets the state mandated requirements for preparing students to take the exam for state certification for entry-level career fire fighters.

FIRE 124 Fire Academy (13-7) 20 Cr. Hrs.*Prerequisite:* Michigan state law mandates that persons taking this course must be at least 18 years of age and have a valid Michigan driver's license.

The Fire Academy combines FIRE 112 and FIRE 119, providing comprehensive training in fire suppression, prevention procedures and skill development. This course is for students who are currently employed by a Michigan Fire 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. This course meets the state-mandated requirements for preparing students who intend to become professional Michigan fire fighters to take the state certification exam for entry-level career fire fighters.

- FIRE 125 Building Construction for the Fire Service (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course emphasizes the impact that an understanding of the principles of building construction has on fire fighting strategy. It explains building materials and the processes that are involved in the construction of structures and how they react to fire conditions. It will provide students with the knowledge required to operate safely and effectively within residential or commercial buildings. The course will also discuss actual incidents and case studies containing critical thinking questions that give students a better understanding of what is to be expected in the field.
- FIRE 128 Fire Fighting—Hydraulics and Water Supply (4-0) 4 Cr. Hrs.**
Prerequisite: None.
 This course is a study of the principles of fluid in motion. More specifically, it concentrates on water and its use as a fire extinguishing agent. It is a course of solving problems of water delivery application for fire fighting situations, along with the theory that is necessary in finding correct solutions. Studies will include the physical laws of liquids as they apply to water for fire fighting, the characteristics of water and its controlled delivery through highly technical machinery and equipment. It will include a study of the safe and efficient operation of that equipment during training and/or actual fire fighting operations. Students will be required to solve sample problems in writing. They will also be required to complete a brief study of a local water system.
- FIRE 130 Fire Fighting—Tactics and Strategy (3-0) 3 Cr. Hrs.**
Prerequisite: FIRE 112 or FIRE 124 is recommended.
 This course examines new technology, fire fighting techniques and improved equipment as well as provides a guide for fire fighters and fire officers who need methods for handling specific situations. The course also covers general principles of fire fighting, engine company operations, search and rescue, structure fires and fire related emergencies.
- FIRE 135 Fire Protection Systems (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course is designed to provide the student with an understanding of the basic principles involved in the design and operation of existing suppression and detection systems found in most structures. Specific topics of discussion include portable extinguishers, dry chemical systems, extinguishing foams, fire detection systems, smoke detection systems and other related topics.
- FIRE 200 Fire and Arson Investigation (4-0) 4 Cr. Hrs.**
Prerequisite: FIRE 112 or FIRE 124.
 This course is designed to acquaint students with data on fire dynamics, explosions and fire behavior. The course is for students interested in learning fundamentals of collection, preservation and analysis of physical evidence. Also covered as part of the course are new laws and court decisions controlling investigator's access to scene and admission of evidence. This course prepares students for on-scene investigation as well as in-service or promotional exams.

- FIRE 205 Fire Department Organization and Administration (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course is designed to equip the student with knowledge to effectively tackle challenging management problems and deliver practical solutions for managing today's fire departments. This course provides guidance on leadership skills: motivating and disciplining personnel and accepting cultural diversity and unity. Also covered in this course is managing human resources, the use of computer technology for information management and strategic planning and budgeting.
- FIRE 207 Fire Company Officer (3-0) 3 Cr. Hrs.**
Prerequisite: FIRE 119 or FIRE 124.
 It is essential that Fire Company Officers be well versed in the areas of management, leadership and human relations. This course will examine the skills required to function as a Fire Company Officer. Students will cover both traditional and contemporary methods of supervision, planning, staffing and training. The course objectives will parallel NFPA 1021, Fire Officer Professional Qualifications. Combined with the knowledge of essential fire fighting skills, this course provides students with the competencies required for a first-line fire company officer.

FRENCH

Dean: Cheryl D. Hawkins, MS

Instructors: Assistant Professor Anita Suess Kaushik, PhD
 Adjunct Faculty

- FR 101 Elementary French 1 (4-0) 4 Cr. Hrs.**
Prerequisite: None.
 This course is intended for students with no previous education in French. You will learn basic grammar patterns and build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. You will also gain an appreciation for the French and Francophone culture.
- FR 102 Elementary French 2 (4-0) 4 Cr. Hrs.**
Prerequisite: One year of high school French or FR 101 with grade of 2.0 or better or consent of instructor.
 This course is a continuation of FR 101 and continues to review the basic French grammar patterns and build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of the French and Francophone culture will be an integral part of the course.
- FR 201 Intermediate French 1 (4-0) 4 Cr. Hrs.**
Prerequisite: Two years of high school French or FR 102 with grade of 2.0 or better or consent of instructor.
 This course is a continuation of FR 102 and continues to cover grammar patterns and build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of the French and Francophone culture will be an integral part of the course.

FR 202 Intermediate French 2 (4-0) 4 Cr. Hrs.

Prerequisite: Three years of high school French or FR 201 with grade of 2.0 or better or consent of instructor.

This course is a continuation of FR 201 with a broader emphasis on speaking (present-day spoken French), listening comprehension and reading. Through varied activities, the main focus will be on oral proficiency and communication as the course will be entirely conducted in French. An appreciation of the French and Francophone culture will be an integral part of the course.

GEOGRAPHY

Dean: Cheryl D. Hawkins, MS

Assistant Dean of Sciences

Instructors: Professor Diane O'Connell, MS
Adjunct Faculty

GEOG 105 Earth Science for Elementary Teachers (3-2) 4 Cr. Hrs.

Prerequisite: None.

This course introduces earth science topics and integrates pedagogical methods appropriate for elementary school 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. Teaching strategies include inquiry-based strategies and active, cooperative and collaborative learning strategies. The course includes lecture, peer teaching, demonstrations and lesson plan development.

GEOG 133 World Regional Geography (4-0) 4 Cr. Hrs.

Prerequisite: None.

World Regional Geography includes a systematic study of the world's geographic realms, including Europe, United States-Canada, Russia, Middle America, South 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 realms using both physical and social criteria. Each realm results from a unique interaction between the human societies and the physical and biological environment. The physical, cultural, political and social features of each realm are studied, along with any special regional concerns or problems.

GEOG 135 Earth Systems (3-2) 4 Cr. Hrs.

Prerequisite: None.

Earth Systems is an introductory physical geography lab course. Earth Systems utilizes a systems approach to analyze the earth's dynamic systems: energy, atmosphere, water resources, weather and climate, tectonic processes, landforms, soil, vegetation and ecosystems. Introductory geographic concepts including absolute and relative location, spatial analysis and geographic approach are covered. Fundamentals of map reading, remote sensing and geographic information systems are included.

GEOG 203 Weather and Climate (3-0) 3 Cr. Hrs.

Prerequisite: None.

This course provides an overview of the earth's atmospheric system. Topics include energy, temperatures, atmospheric moisture, cloud formation, precipitation, atmospheric pressure, weather systems, weather forecasting, severe weather and global climate patterns. Discussions include global climate change and air pollution.

GEOG 212 Environmental Science (3-0) 3 Cr. Hrs.

Prerequisite: None.

This course is an introductory environmental science course with no prerequisites. The course offers an in-depth examination of a variety of local, regional and global environmental concerns. The course focuses on the effects that human societies have on the physical environment and the global biosphere. Topics include human population distribution, growth rates and population explosion, erosion and contamination of soil resources, degradation of water resources, air pollution, global climate change, waste management, biodiversity and deforestation.

GEOG 217 Water Resources (3-0) 3 Cr. Hrs.

Prerequisite: GEOG 130.

This course is a survey of water resources which includes a study of the occurrence, movement and behavior of water in the hydrologic cycle. Discussions on the ways in which these resources can be contaminated and remediated will be held. The course includes a study of watershed management, which is a holistic, integrated method of managing all water resources located within a naturally occurring watershed. Data and hydrologic studies completed for the Rouge River Watershed provide a model for watershed management. The course offers demonstrations of hydrologic computer models and limited field experience.

GEOG 225 Introduction to Geographic Information Systems—GIS (4-0) 4 Cr. Hrs.

Prerequisite: None.

This course provides an introduction to basic Geographic Information Systems (GIS) concepts through in-class discussions and hands-on assignments using ArcGIS. The course includes theory, mapping techniques, data collection and compilation and data analysis. Topics include implementation of a GIS, current applications, legal issues and the future of GIS.

GEOG 241 Geography Field Trip—Latin America (4-0) 4 Cr. Hrs.

Prerequisite: None.

This field study course includes a systematic geographic study of the Latin American realm, which includes Middle America and South America. Geographic concepts, such as map reading and spatial analysis, are first introduced. The physical, cultural, political and social features of the Latin America realm are studied with a focus on regional concerns or problems. The course will conclude with a field trip to a Latin American country to facilitate a live, experiential encounter with the unique physical and cultural landscape of that country.

GEOLOGY

Dean: Cheryl D. Hawkins, MS
Assistant Dean of Sciences
Instructors: Professor James Rexius, MS

GEOL 133 Physical Geology (3-3) 4 Cr. Hrs.

Prerequisite: None.

Physical Geology is the study of the geological processes that affect the earth. This includes a survey of what the earth is made of (rocks, minerals, etc.), how it works on the inside (plate tectonics, earthquakes, volcanic eruptions) and the processes that act upon it from the outside (streams, glaciers, wind, etc.). Identification of common rocks and minerals and the interpretation of topographic maps are part of the required laboratory exercises. An all-day Saturday field trip is optional.

GEOL 134 Historical Geology (3-3) 4 Cr. Hrs.

Prerequisite: GEOL 133.

Historical Geology is the study of the geologic development of the earth as a planet from its creation to the present time. The first half of the course is a study of the methods and techniques that the science of geology uses to unravel the history of the earth. The second half applies these techniques to present the geologic history of the continent of North America as a case study.

GEOL 237 Mineralogy (3-2) 4 Cr. Hrs.

Prerequisite: GEOL 133.

Mineralogy teaches the basics of crystal formation, crystal symmetry and crystal chemistry of the most important rock forming and economic minerals of the earth's crust. The course also includes the formation of minerals and mineral occurrences and associations. Laboratory periods concentrate on the methods used in the identification of about 100 minerals.

GERMAN

Dean: Cheryl D. Hawkins, MS
Instructors: Assistant Professor Anita Suess Kaushik, PhD
Adjunct Faculty

GER 101 Elementary German 1 (4-0) 4 Cr. Hrs.

Prerequisite: None.

This course is intended for students who have no previous education in German. The course will cover basic grammar patterns and build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of German culture will be an integral part of the course.

GER 102 Elementary German 2 (4-0) 4 Cr. Hrs.

Prerequisite: Minimum one year of high school German or GER 101 with grade of 2.0 or better or consent of instructor.

This course is a continuation of GER 101 and continues to review the basic grammar patterns and builds competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of German culture will be an integral part of the course.

GER 201 Intermediate German 1 (4-0) 4 Cr. Hrs.

Prerequisite: Two years of high school German or GER 102 with grade of 2.0 or better or consent of instructor.

This course is a continuation of GER 102 and continues to cover grammar patterns and build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of German culture will be an integral part of the course.

GER 202 Intermediate German 2 (4-0) 4 Cr. Hrs.

Prerequisite: Three years of high school German or GER 201 with grade of 2.0 or better or consent of instructor.

This course is a continuation of GER 201 with a broader emphasis on speaking (present-day spoken German), listening comprehension and reading. Through varied activities, the main focus will be on oral proficiency and communication as the course will be entirely conducted in German. An appreciation of German culture will be an integral part of the course.

HEALTH INFORMATION TECHNOLOGY

Dean: William J. Dunbar, Jr., MS
Assistant Dean: Todd Scott, PhD
Coordinator/Instructor: Professor Patricia Rubio, MSA
Instructors: Professor Jody Scheller, MS
Adjunct Faculty

HIT 100 Introduction to Medical Terminology (2-0) 2 Cr. Hrs.

Prerequisite: None.

This course is a basic overview of medical terminology. The students will be introduced to medical terminology used in healthcare. The topics in the course provide activities to allow the student to spell, define and pronounce medical terminology.

HIT 104 Medical Terminology (4-0) 4 Cr. Hrs.

Prerequisite: None.

This course introduces the student to the fundamentals of the language of medicine. Definitions, pronunciations, spelling and abbreviations of anatomic, symptomatic, diagnostic and operative terms pertaining to each anatomical system of the body will be reviewed. Terms pertaining to pharmacology, clinical laboratory, radiology and pathology will also be explored.

HIT 109 Principles of Health Information Management (2-2) 3 Cr. Hrs.

Prerequisite: None.

This course provides the student an introduction to the health information management profession. Educational and certification requirements are examined along with potential employment opportunities in the health information profession. The health information management department, its functions and the relationship to other departments is explored. Health record content, documentation requirements and the accrediting and licensing agencies that govern health information will be reviewed. Hands-on laboratory activities will help the student to gain proficiency in basic health information functions.

- HIT 111 ICD-9-CM Classification (2-2) 3 Cr. Hrs.**
Prerequisite: HIT 104, HIT 109, HIT 113 and BIOL 236.
 This course is an introduction to basic coding theory and computer laboratory practice applying ICD-9-CM to hospital medical/health records. This course is designed for the classification of patient morbidity and mortality information for statistical purposes and for the indexing of health/medical records by disease and operation for data storage and retrieval. Diagnostic coding and reporting guidelines for hospital inpatient and outpatient services will be utilized.
- HIT 112 Basic Laboratory and Diagnostic Tests (2-0) 2 Cr. Hrs.**
Prerequisite: HIT 100 or HIT 104.
 This course is designed to prepare an allied health student to identify clinical laboratory and diagnostic tests. The student will develop an understanding of what the laboratory and diagnostic test is used for as it relates to diseases, diagnoses or disorders associated with the test and the normal range or results of the test. Students will complete case studies to demonstrate a working knowledge of laboratory and diagnostic tests.
- HIT 113 Human Diseases (3-0) 3 Cr. Hrs.**
Prerequisite: BIOL 105 or BIOL 236 or BIOL 237 and BIOL 238 and HIT 104.
 This course is designed to build on the knowledge of anatomy and physiology and medical terminology. It will introduce the student to the disease processes and their effect on the individual body systems. The student will develop an understanding of the types of treatments for diseases which may include pharmacology, surgery and other therapies.
- HIT 114 Pharmacology for Health Professionals (2-0) 2 Cr. Hrs.**
Prerequisite: HIT 100 or HIT 104.
 This course is designed to provide an overview of principles of pharmacology pertaining to treatment of diseases, physiological processes of the body related to drug therapy, legislation, classification and names of medications. Students will learn about medications through activities using medical documentation and internet resources.
- HIT 116 Legal Aspects of Health Information (1-2) 2 Cr. Hrs.**
Prerequisite: HIT 109.
 This course provides the Health Information Technology student with an understanding of the American legal system and the legal requirements concerning the compilation and maintenance of health information. Additional topics include how health information is used and when it can be disclosed, state and federal regulations and statutes, including the privacy and security rules resulting from the Health Insurance Portability and Accountability Act (HIPAA).
- HIT 158 Clinical Affiliation 1 (0-8) 2 Cr. Hrs.**
Prerequisite: HIT 104, HIT 109, BIOL 236 and CIS 120.
 This course provides professional practice assignments for the student in a Health Information Management/Services department under the supervision of a qualified Health Information Management professional. The student will have the opportunity to observe and interact with the Health Information Management professional in a variety of healthcare facilities both on-campus and off-campus site. The student will observe, perform and report on health information systems utilized in a variety of healthcare facilities and virtual lab.
- HIT 210 Healthcare Statistics for Health Information Management (2-2) 3 Cr. Hrs.**
Prerequisite: HIT 104, HIT 111 and HIT 158.
 This course introduces students to terminology, definitions and computational methodology of the basic and most frequently used health statistics. Topics examined include healthcare data collection, preparation, analysis and interpretation, cancer program requirements and vital statistics reporting.
- HIT 213 Health Information Technology Seminar (1-0) 1 Cr. Hr.**
Prerequisite: None.
Corequisite: HIT 258.
 This course will assist the student in preparation for the registered health information technician examination. The student will develop a study plan to be utilized on an individual and/or group basis. The student will complete a mock examination. The student will also begin preparation for a job search. A research of job opportunities that are currently available will be identified. The impact of continuing education upon the health information management profession will be discussed and a plan for maintaining certification will be developed.
- HIT 216 Healthcare Delivery Systems (2-0) 2 Cr. Hrs.**
Prerequisite: HIT 109, HIT 111 and HIT 158.
 This course provides for a comprehensive review of the healthcare industry. Trends and changes related to healthcare facilities such as acute care hospitals, specialty hospitals, long term care facilities, managed care organizations, ambulatory care, behavioral care, hospice and home healthcare are investigated. The course will also deal with the impact and use of computers in the delivery and documentation of healthcare and the role of the health information professional within the healthcare delivery system.
- HIT 217 Quality Management in Healthcare (2-0) 2 Cr. Hrs.**
Prerequisite: HIT 111, HIT 113 and HIT 158.
Corequisite: HIT 256.
 This course is designed for the health information technology student to review methods by which a healthcare organization measures, assesses and improves the quality of healthcare services. Topics explored include traditional quality assessment, performance improvement methodologies, utilization/resource management, risk management, infection control, credentialing and the role of oversight agencies.
- HIT 219 Organization and Management (1-2) 2 Cr. Hrs.**
Prerequisite: HIT 210, HIT 216, HIT 217 and HIT 256.
Corequisite: HIT 258.
 Health information professionals make decisions that demand effective planning, organization, motivation and communication skills. Effective supervision of human and other resources is also essential in today's changing world of healthcare. This course provides the Health Information Technology student with basic management concepts and theories that are applied in the Health Information Services/Management environment.

- HIT 222 Basic Ambulatory Coding (2-2) 3 Cr. Hrs.**
Prerequisite: HIT 104, HIT 109, HIT 113 and BIOL 236.
 This course is an introduction to basic coding theory and computer laboratory practice applying CPT to ambulatory medical/health records. This course is designed to prepare a student to code in the ambulatory setting using Current Procedural Terminology (CPT). The course will emphasize the reporting requirements for codes and rules that apply to the reimbursement systems used by government payers and other health plans. The student will be introduced to computerized coding systems utilized in health-care. The emphasis of the course will be coding for facility services and procedures.
- HIT 230 ICD-9-CM Coding Practicum (1-1) 2 Cr. Hrs.**
Prerequisite: HIT 233 and HIT 234.
 This course will provide practical hands-on experience with ICD-9-CM coding of health/medical records. The student will apply official coding guidelines to a variety of clinical cases and record types such as hospital inpatient, outpatient and physician office or service. The student will utilize computerized encoding systems for diagnosis and procedure coding. The student will research references in solving coding problems.
- HIT 231 Ambulatory Coding Practicum (1-1) 2 Cr. Hrs.**
Prerequisite: HIT 233 and HIT 234.
 This course will provide practical hands-on experience with Current Procedural Terminology (CPT) coding of health/medical records. The student will apply official coding guidelines to a variety of clinical cases and record types such as ambulatory, emergency, outpatient and physician office or service. The student will utilize the computerized encoding systems for ambulatory and procedure/services coding. The student will research references in solving coding problems.
- HIT 232 Computer Applications in Healthcare (2-0) 2 Cr. Hrs.**
Prerequisite: HIT 109 and HIT 158.
 This course is an introduction to the theory and practical methodology of healthcare information systems utilized in a health information management (medical record) department. The course will introduce the student to information systems used in healthcare organizations. The student will develop an understanding of the role of the health information technician in information systems planning and development. The student will be introduced to emerging technologies in healthcare information systems.
- HIT 233 Intermediate ICD-9-CM Coding (2-2) 3 Cr. Hrs.**
Prerequisite: HIT 111, HIT 113 and BIOL 236.
 This course is designed to prepare a student to code in the hospital setting using ICD-9-CM. The course will emphasize reporting requirements for codes and rules that apply to reimbursement systems used by government payers and other health plans. The student will be introduced to computerized coding systems utilized in healthcare. The emphasis of the course will be development of intermediate skills to code accurately and ethically. Students will assign codes for diagnoses, services and procedures that are documented in the health/medical record. This course is the theory and practice of coding medical records in the hospital setting using ICD-9-CM. The student will use the encoding software in the laboratory to apply coding to charts.
- HIT 234 Intermediate Ambulatory Coding (2-2) 3 Cr. Hrs.**
Prerequisite: HIT 111, HIT 113, HIT 222 and BIOL 236.
 This course includes theory and practice in coding medical/health records in the hospital/ambulatory setting using Current Procedural Terminology (CPT) and Healthcare Financing Administration Common Procedure Coding System (HCPCS). The student will use encoding software in the laboratory to code medical/health records. The student will analyze clinical data for the purpose of coding and reimbursement in the ambulatory setting including the physician office.
- HIT 240 Healthcare Reimbursement Methodologies (2-0) 2 Cr. Hrs.**
Prerequisite: HIT 109, HIT 111, HIT 158 and HIT 222.
 The course is designed to provide the student knowledge of the diverse reimbursement methodologies utilized by governmental and private insurance entities in the payment for healthcare delivery services. The course will present third-party payer and compliance/auditing issues, Correct Coding Policy and government prospective payment systems. The terminology and principles for managed care, revenue cycle management and other healthcare plans will be covered.
- HIT 256 Clinical Affiliation 2 (0-8) 2 Cr. Hrs.**
Prerequisite: HIT 111, HIT 113, HIT 158 and HIT 216.
Corequisite: HIT 217 and HIT 222.
 This course provides practical experience for the student in a Health Information Management/Services department under the supervision of health information management professionals. The student will have an opportunity to observe and interact with health information management professionals in a variety of healthcare facilities at off-campus sites. The student will observe, perform and report on the functions necessary to support health information services.
- HIT 258 Clinical Affiliation 3 (0-8) 2 Cr. Hrs.**
Prerequisite: HIT 210, HIT 216, HIT 217, HIT 222 and HIT 256.
Corequisite: HIT 219.
 This course provides professional practice assignments for the student in a Health Information Management/Services department under the supervision of health information management professionals. The student will have the opportunity to observe and interact with health information management professionals in a variety of healthcare facilities at off-campus sites. The student will observe, perform, and report on the procedures/functions utilized within health information systems in facilities, organizations or agencies related to healthcare. The student may be assigned to a hospital, cancer registry, cancer center, research department, ambulatory center or other related healthcare organizations.

HISTORY

Dean: Cheryl D. Hawkins, MS

Instructors: Professor Kent Kirkpatrick, MA
Associate Professor Steven Berg, PhD
Associate Professor Alexander Thomson, PhD
Adjunct Faculty

HIST 134 Ancient World (4-0) 4 Cr. Hrs.

Prerequisite: None.

This course is a survey of prehistoric and ancient times: origins of human nature and culture; early gathering-hunting and planting-herding societies; origins of civilization in the Middle East, India, China, the Mediterranean and elsewhere; civilized-barbarian interaction and the rise of early Old World empires; rise of classical civilizations, especially Greece and Rome; rise of the higher religions, especially the Judaeo-Christian traditions; and decline of classical civilizations with emphasis on the fall of Rome and the rise of medieval Europe, Byzantium and Islam.

HIST 137 Early Modern World (4-0) 4 Cr. Hrs.

Prerequisite: None.

This course is a survey of the balance of world civilizations in medieval and early modern times: American and African peripheral regions; major civilizations of Asia and Europe in the Middle Ages; 14th–16th century crisis and renewal; expansion of Europe in the age of Renaissance, Reformation and discovery; rise of the Great Power system; the scientific revolution and Enlightenment; the democratic and industrial revolutions; emergence of modern ideologies and nations; and climax of European expansion in the age of imperialism to the late 19th century.

HIST 138 Contemporary World (3-0) 3 Cr. Hrs.

Prerequisite: None.

This course is a survey of the main themes in the history of the world in the last hundred years: the Eurocentric world order of 1900; World War I, communist revolution and fascist counter-revolution; the settlements of the 1920s and the renewal of world crisis in the 1930s; World War II and the onset of the Cold War in the 1940s–1960s; erosion and collapse of the postwar order in the 1970s–1980s; and the contemporary world order in historical context.

HIST 141 History of Michigan and the Great Lakes (3-0) 3 Cr. Hrs.

Prerequisite: None.

This course is a general survey of the historical development of Michigan from the primitive wilderness to the present; growth of certain political, economic, social and cultural institutions which contribute to understanding Michigan and the Great Lakes area today; and emphasis on relating the history of the state to that of both the area and the nation.

HIST 151 Early America—U.S. History (3-0) 3 Cr. Hrs.

Prerequisite: None.

This course is a survey of the origins of American civilization: native American societies in pre-Columbian and colonial times; European discovery, exploration, conquest and settlement of the Americas; Iberian, French and African elements in the early Americas; 17th and 18th century English colonial development; the Revolutionary era and the founding of the U.S.; and Federalist and Jeffersonian America to the early 19th century.

HIST 152 19th Century America—U.S. History (3-0) 3 Cr. Hrs.

Prerequisite: None.

This course is a survey of the expansion, crisis and renewal of the U.S. in the 19th century: demographic, economic, social and cultural change in Jacksonian America; the North and antebellum reform movements; the South and slavery; the West and territorial conquest and settlement; sectional struggle, the Civil War and Reconstruction; and emergence of modern, urban, industrial America to the beginning of the 20th century.

HIST 153 Contemporary America—U.S. History (3-0) 3 Cr. Hrs.

Prerequisite: None.

This course is a survey of American civilization within the last hundred years: turn-of-the-century growth and crisis; the Progressive Era and World War I; the 1920s, the Great Depression and the New Deal; World War II and the emergence of the U.S. as a superpower; affluence, consensus and confrontation in the 1950s–1960s; malaise, drift and fragmentation in the 1970s–1980s; and the U.S. in the world of the late 20th century.

HIST 230 U.S. Business History—1865 to Present (3-0) 3 Cr. Hrs.

Prerequisite: None.

This course will provide students with an examination of major business and economic development in the U.S. from the Civil War to the present. Emphasis will be placed on the ideas, forces and personalities in the ever-changing role of business and economics and their impact on the nation and its citizens. This course is recommended for students majoring in business, economics and history.

HOMELAND SECURITY

Dean: William J. Dunbar, Jr., MS

Assistant Dean: Todd Scott, PhD

Instructors: Adjunct Faculty

HS 101 Introduction to Homeland Security (3-0) 3 Cr. Hrs.

Prerequisite: None.

This course is an introduction to the concept of homeland security. The course will define and explain homeland security. The U.S. Department of Homeland Security will be thoroughly analyzed and its mission will be investigated. This course will also address chemical, biological, radiological, nuclear and explosive devices and the use of these weapons of mass destruction. The importance and basic elements of a planned response, methods used to prevent the importation of weapons of mass destruction into the U.S. and what can and is being done to prevent another large-scale terrorist incident in the United States will be covered.

HS 102 Understanding Terrorism (3-0) 3 Cr. Hrs.

Prerequisite: None.

This course will introduce students to the phenomena of contemporary terrorism and extremism. Students will see special emphasis on extremism as the foundation for terrorist behavior, types of terrorism and how governments and law enforcement agencies respond to terrorism. The first steps are to understand the mindset, the groups, the aims and the tools terrorists use.

- HS 103 Transportation and Border Security (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course addresses concerns associated with border and transportation security to include the potential threats to the passenger and cargo transportation systems. The course will cover the essential characteristics of national and international terrorism, with emphasis placed on significant transportation related terrorist threats and events. Emphasis will also be placed on the importance of technology and the interdependency of local, state, federal and international agencies to protect global trade. Students will be expected to solve problems as an individual and in a coordinated team setting.
- HS 201 Organizational and Facility Security (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 The focus of this course will be on traditional methods of physical security hardware, risk assessments and business continuity. The course will also explore and assess developing security technology and its application to reduce internal and external threats to business.
- HS 202 Introduction to Emergency Management (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course will provide an overview of emergency management as a career field, discipline and approach to dealing with all-hazards emergency/disaster response. This course will examine major disasters in history and concepts, theory and terminology associated with emergency management.
- HS 203 Intelligence Analysis and Security Management (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course will provide a study of the U.S. government's intelligence community as well as an overview of intelligence processes. This study will include a historical look at intelligence and some of its milestones. Discussed will be key terms, concepts and perspectives. Students will be exposed to the relationship of intelligence with law enforcement and homeland security and how some intelligence processes may be applied to emergency management and pre-incident planning.

HUMAN DEVELOPMENT SERVICES

Dean: Cheryl D. Hawkins, MS
 Associate Dean: Deborah Daiek, PhD
 Instructors: Adjunct faculty

- HDS 110 Career Decision Making (2-0) 2 Cr. Hrs.**
Prerequisite: None.
 This course assists students 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 identify tentative career options, decision-making strategies, obstacles and planning skills.

HUMANITIES

Dean: Cheryl D. Hawkins, MS
 Instructors: Associate Professor James Nissen, DMA
 Adjunct Faculty

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

HUM 202 Art and Music in Western Civilization: Field Study—France (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course is a humanistic study of the arts, culture and history in concentrated form through field study. Course includes art forms and functional styles of historical periods as they relate to universal principles. The course will include studies in French history, culture and geography. The course will conclude with a ten-day trip to Paris, France which will include visits to the Louvre Museum, Musee d'Orsee (and other museums/galleries), Notre Dame Cathedral (and other cathedrals), day trips to Versailles, Giverny, St. Germain, St. Denis and other culturally and historically significant centers to facilitate a live, first-hand encounter with French arts and culture.

HUM 203 Art and Music in Western Civilization: Field Study—Italy (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course is a humanistic study of the arts, culture and history in concentrated form through field study. Course includes art forms and functional styles of historical periods as they relate to universal principles. The course will include studies in Italian history, culture and geography. The course will conclude with a ten-day trip to Italy which will include visits to Venice, Ravenna, Florence, Assisi, Rome and other culturally and historically significant centers to facilitate a live, first-hand encounter with Italian arts and culture.

HUM 204 Art and Music in Western Civilization: Field Study—Spain (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course is a humanistic study of the arts, culture and history in concentrated form through field study. Course includes art forms and functional styles of historical periods as they relate to universal principles. The course will include studies in Spanish history, culture and geography. The course will conclude with a ten-day trip to Spain which will include visits to Madrid, Toledo, Segovia, El Escorial and other culturally and historically significant centers to facilitate a live, first-hand encounter with Spanish arts and culture.

HUM 210 The Art of Being Human (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course is an interdisciplinary introduction to the humanities as an overall approach to living. The course involves the student in the philosophies, religions and arts as avenues of human inquiry and expression.

HUM 212 Mass Media and Popular Culture (3-0) 3 Cr. Hrs.*Prerequisite:* ENG 101. ENG 102 recommended.

This course is an introduction into the nature of mass communication and their relationship with the public. The course will analyze, assess and evaluate popular culture and mass media. Focus will be on the various forms of media to include radio, television, film, newspaper and advertising to determine how they influence and manipulate the ways you relate to yourself and others. Examination will include the history, economics, power and ethical consideration of media outlets.

HUM 215 Humanities through the Arts (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course represents an exploratory approach to the humanities that focuses on the special role of the arts. The relation of the humanities to values is central to the purpose of the course. This approach provides a self-contained program for studying values as revealed in the arts.

HUM 231 The Humanities in Western Culture—Antiquity through the Renaissance (3-0) 3 Cr. Hrs.*Prerequisite:* HUM 106 or HUM 150 or consent of instructor.

This course is an introduction to the Integrated Humanities. Culture has sometimes been defined as that which remains after the civilization has vanished. What is left behind amounts to much more than just artifacts; we are left with a legacy of the humanistic spirit. This course takes an in-depth look at culture, civilization, values and qualities inherent in Western art, architecture, music, literature and philosophy. The course is also a study in Western thought and its resultant social and political institutions. The first of a two-semester sequence, this course will cover Ancient River Valley, Greek and Roman civilizations; the Middle Ages; and the Renaissance.

HUM 232 The Humanities in Western Culture—Baroque to the Present (3-0) 3 Cr. Hrs.*Prerequisite:* HUM 106 or HUM 150 or consent of instructor.

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

ITALIAN

Dean: Cheryl D. Hawkins, MS

Instructors: Assistant Professor Anita Suess Kaushik, PhD
Adjunct Faculty

ITAL 101 Elementary Italian 1 (4-0) 4 Cr. Hrs.

Prerequisite: None.

This course is intended for students who have no previous education in Italian. The course will cover basic grammar patterns and build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of the Italian culture will be an integral part of the course.

ITAL 102 Elementary Italian 2 (4-0) 4 Cr. Hrs.

Prerequisite: ITAL 101 with grade 2.0 or better or one year of high school Italian or consent of instructor.

This course is a continuation of ITAL 101 and continues to review the basic Italian grammar patterns and to build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of the Italian culture will be an integral part of the course.

LEARNING RESOURCES

Dean: Cheryl D. Hawkins, MS

Associate Dean: Deborah B. Daiek, PhD

Instructors: Adjunct Faculty

LR 135 Strategies for Digital Research: Introduction to Information Literacy (1-0) 1 Cr. Hr.

Prerequisite: None.

This course provides students with the technical skills needed to locate, access and critically evaluate electronic (digital) information. Additionally, it will teach students information management strategies once they have learned how to access appropriate information sources.

MANUFACTURING

Dean: William J. Dunbar, Jr., MS

Instructors: Adjunct Faculty

MFG 102 Basic Machining Processes (2-4) 3 Cr. Hrs.

Prerequisite: None.

This course will cover fundamental manufacturing processes. The student will be exposed to manual machine operator skills. Particular course emphasis will be on machines, tools and measurements to produce an end product. This is a hands-on class with two-thirds of the time in the manufacturing lab.

MFG 103 Basic Computer Numerical Control (CNC) (2-4) 3 Cr. Hrs.

Prerequisite: MFG 102.

Students will be introduced to the operation of the CNC Mill through the use of the basic fundamental of “G” codes and “M” codes. Machine and tool set up will also be covered. As part of the class, students will make several small projects on the CNC machines. These machines are used in today’s industrial manufacturing plants.

MFG 105 Manufacturing Processes (4-0) 4 Cr. Hrs.

Prerequisite: None.

This course will serve as an introduction to a variety of manufacturing processes, such as casting, forming, plastics, machining and joining. It is meant to be an overview and will concentrate on the uniqueness of each process as it applies to materials and production capabilities. In addition, the student will have a brief exposure to the properties of materials as they relate to particular manufacturing processes and the concepts of measurement, inspection and tolerances.

MFG 106 Basic Mastercam (2-2) 3 Cr. Hrs.

Prerequisite: MFG 102 or basic knowledge of machines (mill and lathe).

Students will further their CNC skills by using a CAD/CAM Mastercam software to generate CNC coding for mills and lathes. Using Mastercam involves three steps: First, the student will use Mastercam’s CAD program to create the part geometry; secondly, the CAM program will be used to program machine information (feed rate, spindle speed, coolant control command, etc.); and finally, a postprocessor will be used to generate CNC coding. Also, tool paths will be verified by using a graphical (animation) solid-model tool path verification to detect potential machining errors. The students will also study drilling, solid modeling, pocketing and circle boring.

MFG 203 Advanced Computer Numerical Control (CNC) (2-4) 3 Cr. Hrs.

Prerequisite: MFG 103.

This course will cover CNC machining as well as the advanced functions of the controller. All machine-based operational aspects of the CNC machine used in industrial manufacturing plants will be covered. This course will provide a more advanced machining experience.

MFG 206 Advanced Mastercam (0-4) 3 Cr. Hrs.

Prerequisite: MFG 106 or extensive knowledge in 2D Mastercam Design.

The student will use CNC Mastercam software program. This course will address the following machining variables: machining parameters, constructing wire frame models, generating surface models with tool paths, engraving artworks and solid modeling. Operational parameters will be calculated to determine operating capacity of a cutting tool, spindle horsepower, the affects of different types of work piece material, and rigidity of the part and respective fixture. The student will learn how to generate coding for 3D wire frame and multi-axis composite surfaces using various modeling techniques.

MFG 211 3D Computer Numerical Control (CNC) Machining (0-3) 3 Cr. Hrs.

Prerequisite: MFG 203 and MFG 206.

Students will use the computer to develop the tool path for cut 3D surfaces on CNC machines. This method is used in mold shops in the industrial operation. Students must have a very good understanding of Mastercam and CNC machining.

MASSAGE THERAPY

Dean: William J. Dunbar, Jr., MS

Assistant Dean: Todd Scott, PhD

Coordinator: Kathleen M. Paholsky, NCTMB

Instructors: Adjunct Faculty

MAS 101 Theory and Fundamentals of Massage Therapy (2-0) 2 Cr. Hrs.

Prerequisite: None.

Corequisite: MAS 102 and MAS 103.

This course deals with the history, professional standards, ethics and scope of practice for massage therapy. The student is introduced to professional methods of communication and setting boundaries. The concepts of indication and contraindications are presented in relationship to pathology. Exploring current research that validates massage will also be addressed.

MAS 102 Basic Massage Applications (4-4) 6 Cr. Hrs.

Prerequisite: None.

Corequisite: MAS 101 and MAS 103.

This class provides a solid base for the preparation and performance of massage in a wellness setting on healthy individuals. The tools of the trade, from tables and supplies through massage manipulations and techniques, are presented and practiced with an emphasis on safe and effective applications and body mechanics.

MAS 103 Fundamentals of Anatomy and Physiology (4-0) 4 Cr. Hrs.

Prerequisite: None.

Corequisite: MAS 101 and MAS 102.

This course provides the foundation for the study of anatomy and physiology as it relates to massage therapists. Western science concepts and their correlations to Eastern philosophies are discussed and compared. General subject matter includes the organization of body structure, the mechanisms of health and disease, pathology, pain, stress management and adaptation. The course introduces medical terminology, especially the language encountered in massage. Study of the components of the skeletal, muscular and nervous systems begins in this course. Feedback loops and their relationship to massage are also presented. Stress responses and stress management are discussed with the focus on health maintenance.

MAS 104 Intermediate Massage Applications (2-6) 5 Cr. Hrs.

Prerequisite: MAS 101, MAS 102 and MAS 103.

Corequisite: MAS 109 and MAS 110.

This course covers both complementary bodywork systems and applications of massage for individuals with special needs. The course also presents business considerations for the practice of massage therapy as an employee or independent contractor. Wellness education as it relates to self-help and client activities will be studied. Applications of massage therapy in healthcare facilities and hospice/comfort care will be explored.

MAS 106 Palpatory and Assessment Skills (1-5) 3.5 Cr. Hrs.

Prerequisite: MAS 101, MAS 102, MAS 103, MAS 104, MAS 109 and MAS 110.

Corequisite: MAS 107 and MAS 111.

This course will provide the massage student with an extensive opportunity to explore the various avenues of assessment for relaxation and therapeutic massage. Students will become more proficient in postural evaluation, tissue assessment, interpretation and analysis during massage sessions. The creation of a database of intake and assessment information and its use in interpretation and analysis to determine treatment methods and plans will be covered. Specific applications of massage and bodywork methods applicable to the treatment plans will be reviewed. A discussion of ergonomics will include our relationship to the physical surroundings that affect body structure and function, the impact on massage and self-care activities for clients to maintain health.

MAS 107 Organ Systems Anatomy and Physiology (4-0) 4 Cr. Hrs.

Prerequisite: MAS 101, MAS 102, MAS 103, MAS 104, MAS 109 and MAS 110.

Corequisite: MAS 106 and MAS 111.

This course addresses those organ systems emphasized in standard anatomy courses. Attention is given to methods of clinical reasoning and justification for identifying indications and contraindications for massage and need for referral. Students will apply massage and bodywork to meet the needs of clients with more involved health conditions. As part of the course, the students will prepare a detailed case report and present it to the class. Evaluating criteria and analyzing information will be used as part of a peer review of the case reports presented.

MAS 109 Systems of Support and Movement (4-2) 5 Cr. Hrs.

Prerequisite: MAS 101, MAS 102 and MAS 103.

Corequisite: MAS 104 and MAS 110.

The skeletal, muscular and peripheral nervous systems are explored in detail in this course. They are the systems primarily addressed by massage therapists and the focus will be on identifying structures, normal functions, characteristics and common disease processes. A study of pharmacologic agents will be related to physiologic effects that require modification in massage sessions.

MAS 110 Massage Therapy Student Clinic (0-4) 2 Cr. Hrs.

Prerequisite: MAS 101, MAS 102 and MAS 103.

Corequisite: MAS 104 and MAS 109.

Students will experience a total of 60 hours of supervised practice using the skills they have learned in class. To prepare them for a professional massage work environment, all students will perform practical applications of massage, front desk activities, clinic supervision and management at the Radcliff campus clinic site. Some additional off-site opportunities may be available.

MAS 111 Massage Therapy Internship (0-3) 3 Cr. Hrs.

Prerequisite: MAS 101, MAS 102, MAS 103, MAS 104, MAS 109 and MAS 110.

Corequisite: MAS 106 and MAS 107.

This is the capstone course for Massage Therapy students who have completed all prerequisites. The students will work in a clinical setting supervised by a licensed massage therapist. Community service activities and presentations and a student portfolio are included in the course requirements.

MATHEMATICS

Dean: Cheryl D. Hawkins, MS

Assistant Dean of Sciences

Instructors: Professor Lois Bearden, MA

Professor Edward Kavanaugh, MA

Professor Sandra Kerr, MA

Professor Randy Schwartz, MA

Associate Professor Katherine Anderson, MA

Associate Professor Janet Arsznov, MA

Associate Professor Audrone Mingela, MA

Assistant Professor Andrea Lazarski, MA

Assistant Professor Bradley Stetson, MS

Instructor Michael McCoy, MS

Adjunct Faculty

CALCULATOR REQUIREMENTS:

MATH 113: A scientific calculator is required. If continuing in mathematics, a TI-83 Plus or TI-84 Plus is recommended.

MATH 119, 128 through 151: TI-83 Plus or TI-84 Plus is required.

MATH 122, 230 and 240: TI-83 Plus or TI-84 Plus is recommended.

MATH 252: Calculator is required. Consult with your instructor.

No devices with computer algebra systems, such as the TI-89 or TI-92, are permitted on exams or other graded work in any math class. For more details you may wish to consult your instructor.

For appropriate sequence of math courses, consult with a member of the Math Department or Counseling Center.

MATH 045 Basic Mathematics (4-0) 4 Cr. Hrs.

Prerequisite: Competence with addition, subtraction, multiplication and division of whole numbers without the aid of a calculator.

The topics covered in this course include arithmetic with whole numbers, fractions, decimals, percentages and proportions. In addition, several topics from geometry are included.

MATH 047 Prealgebra (3-0) 3 Cr. Hrs.

Prerequisite: Competence in arithmetic without using a calculator OR MATH 045 or equivalent with grade of 2.0 or better.

Topics covered in this course include an introduction to variables, integers and algebraic expressions; simplifying algebraic expressions involving integers, fractions and decimals; solving algebraic equations involving integers, fractions, decimals and percents; ratio and proportions; applications using basic concepts from geometry; and introduction to graphing via point-plotting.

MATH 053 Beginning Algebra (4-0) 4 Cr. Hrs.

Prerequisite: MATH 047 or equivalent with grade of 2.0 or better.

This course will explore the real number system, fundamental operations with real numbers, graphing, linear equations, factoring polynomials, rational expressions, exponents, quadratic equations, applications and introduction to the function concept.

MATH 055 Plane Geometry (3-0) 3 Cr. Hrs.

Prerequisite: MATH 053 or equivalent with grade of 2.0 or better.

This course includes the basic elements of geometry including deductive reasoning, formal proofs and elementary construction with straight edge and compass.

MATH 101 Business Mathematics (3-0) 3 Cr. Hrs.

Prerequisite: MATH 045 with a minimum grade of 2.0 or equivalent.

This course offers a review of fundamentals of arithmetic along with coverage of percentage, simple and compound interest, taxes, insurance, bonds and their applications to business practice.

MATH 105 Mathematics for Elementary Teachers 1 (4-0) 4 Cr. Hrs.

Prerequisite: MATH 053 or equivalent with grade of 2.5 or better.

This is the first of a two-course sequence designed for students who plan to enter elementary school teaching. The course covers problem solving, number theory, sets, functions, numeration, the real numbers and their properties and operations.

MATH 106 Mathematics for Elementary Teachers 2 (4-0) 4 Cr. Hrs.

Prerequisite: MATH 105 or equivalent with grade of 2.0 or better.

This is the second of a two-course sequence designed for students who plan to enter elementary school teaching. The course covers geometry, measurement, statistics and probability.

MATH 111 Applications—Utility of Math (4-0) 4 Cr. Hrs.

Prerequisite: MATH 045 or equivalent with grade of 2.0 or better.

This course is intended for students who do not wish to pursue the study of mathematics by following the standard sequence of courses, but who need to develop some competency in mathematics for an Associate of Arts degree. This course includes the practical application of mathematics. Topics covered in the course include geometry, managing money, interest, installment buying, credit cards, loans, probability, statistics and graphing.

MATH 113 Intermediate Algebra for College Students (4-0) 4 Cr. Hrs.

Prerequisite: MATH 053 or equivalent with grade of 2.0 or better. Placement test is available in the Assessment Center.

Review of algebraic operations; problem solving strategies; integer and rational exponents; complex numbers; solving equations; function concept; graphs and applications of linear, quadratic, exponential and logarithmic functions; and systems of equations are the topics covered in this course.

MATH 119 Trigonometry (3-0) 3 Cr. Hrs.

Prerequisite: MATH 055 or equivalent with grade of 2.0 or better and MATH 113 or equivalent with grade of 2.0 or better. Note: Business and social science majors should take MATH 128 instead of MATH 119.

Trigonometric functions and their graphs, identities, equations and inverse functions and solutions of right and oblique triangles are the topics included in this course.

MATH 122 Elementary Statistics (4-0) 4 Cr. Hrs.

Prerequisite: MATH 113 or equivalent with grade of 2.0 or better. Placement test is available in the Assessment Center.

This course includes an introduction to statistics, statistical descriptions, frequency distributions, possibilities and probabilities, probability distributions, sampling and sampling distributions, testing hypotheses based on measurements, count data, paired data and use of nonparametric tests.

- MATH 128 Precalculus Without Trigonometry (4-0) 4 Cr. Hrs.**
Prerequisite: MATH 113 or equivalent with grade of 2.0 or better. *Note:* MATH 128 is recommended for business and social science majors. *Note:* The combination of MATH 119 and MATH 128 is NOT comparable to MATH 129. MATH 128 is a prerequisite for MATH 145 but is NOT a prerequisite for MATH 150.
 The function concept, polynomial, rational, exponential and logarithmic functions, curve sketching, systems of linear equations and inequalities, graphical solutions and business applications are the topics included in this course.
- MATH 129 Precalculus With Trigonometry (5-0) 5 Cr. Hrs.**
Prerequisite: MATH 113 or equivalent with a grade of 2.0 or better and MATH 119 or equivalent with a grade of 2.0 or better. *Note:* MATH 129 is recommended for engineering, science and math majors.
 Topics covered in this course include the function concept, polynomial, rational, exponential, logarithmic, rapid review of trigonometric and inverse trigonometric functions, solving equations and systems of equations, curve sketching, complex numbers, coordinate geometry and conic sections. The prevailing theme is applications and graphical solutions.
- MATH 135 Finite Mathematics (4-0) 4 Cr. Hrs.**
Prerequisite: MATH 128 or equivalent with grade of 2.0 or better. *Note:* MATH 135 is oriented to business and social science majors.
 Matrices and their applications to linear equations and linear programming, the simplex method, elementary probability and mathematics of finance are the topics included in this course.
- MATH 145 Calculus for Business and Social Science (4-0) 4 Cr. Hrs.**
Prerequisite: MATH 128 or equivalent with grade of 2.0 or better.
 The main topics of this course are differentiation of algebraic, exponential and logarithmic functions; curve sketching; optimization; constrained optimization; integration; introduction to functions of several variables; and applications.
- MATH 150 Calculus With Analytic Geometry 1 (5-0) 5 Cr. Hrs.**
Prerequisite: MATH 129 or equivalent with grade of 2.0 or better.
 This course is oriented to engineering, science and mathematics majors. Limits and continuity, derivatives and integrals of algebraic and some trigonometric functions, curve sketching with the aid of the graphing calculator and applications are the topics covered in this course.
- MATH 151 Calculus With Analytic Geometry 2 (5-0) 5 Cr. Hrs.**
Prerequisite: MATH 150 or equivalent with grade of 2.0 or better.
Note: MATH 151 may be taken concurrently with MATH 230.
 This course includes the study of derivatives and integrals of transcendental functions, techniques of integration, indeterminate forms, improper integrals, infinite series, conics, polar coordinates and applications.
- MATH 230 Linear Algebra (4-0) 4 Cr. Hrs.**
Prerequisite: MATH 150 or equivalent with grade of 2.0 or better.
 Topics covered in this course include systems of linear equations, matrices, determinants, Euclidean vector spaces, general vector spaces, inner product spaces, eigenvalues and eigenvectors, diagonalization, linear transformations and applications.

- MATH 240 Calculus With Analytic Geometry 3 (5-0) 5 Cr. Hrs.**
Prerequisite: MATH 151 or equivalent with grade of 2.0 or better.
 Vectors in the plane, vectors in three-space, solid analytic geometry, partial derivatives, line integrals, multiple integrals and applications are the topics covered in this course.
- MATH 252 Differential Equations (5-0) 5 Cr. Hrs.**
Prerequisite: MATH 240 or equivalent with grade of 2.0 or better.
 Topics covered in this course include first order differential equations, second order linear equations, series solutions of second order linear equations, higher order linear equations, Laplace transform, systems of first order linear equations, numerical methods and qualitative theory of differential equations.

MEDICAL ASSISTING

Dean: William J. Dunbar, Jr., MS
 Assistant Dean: Todd Scott, PhD
 Coordinator/Instructor: Professor Patricia Rubio, MSA
 Instructors: Adjunct Faculty

- MA 110 Phlebotomy (4-0) 4 Cr. Hrs.**
Prerequisite: None.
 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 healthcare setting.
- MA 134 Medical Insurance Coding (3-0) 3 Cr. Hrs.**
Prerequisite: None.
Corequisite: HIT 104.
 This course introduces the student to insurance coding guidelines developed for use with the International Classification of Diseases (ICD-9-CM) and Current Procedural Terminology (CPT-4). The course is designed to develop coding skills to record the services and procedures that are provided for the patient. The importance of accurate coding will be discussed as it is an essential part of reimbursement.
- MA 140 Medical Office Procedures (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course will focus on the basic concepts in the professional practice of medicine and the role and function of the medical assistant. The course introduces personal and professional characteristics and legal and ethical standards for the medical assistant. Professional and personal therapeutic communications, time management and workplace dynamics will be studied. This course addresses administrative skills necessary for the medical assistant.
- MA 155 Medical Insurance Billing (3-0) 3 Cr. Hrs.**
Prerequisite: MA 134 and HIT 104.
 This course introduces the student to the various types of medical insurance including Blue Cross/Blue Shield, Medicare, Medicaid, Workers' Compensation and other third-party payers. The student will perform the tasks necessary to process claim forms for each type of medical insurance. Manual and computerized billing methodologies are included.

MA 174 Medical Laboratory Techniques (4-0) 4 Cr. Hrs.*Prerequisite:* BIOL 105, HIT 104, MA 140 and MA 110.

This course will provide an opportunity for the student to practice techniques to perform laboratory procedures. The student will practice preparing the patient for tests, collecting samples, completing the tests and reporting the results to the physician. The student will practice laboratory procedures such as urinalysis, hematology, bacteriology, chemistries, blood typing and patient preps.

MA 180 Medical Office Clinical Procedures (3-3) 4 Cr. Hrs.*Prerequisite:* BIOL 105, HIT 104 and MA 140.

This course is designed to introduce the student to examination techniques, injections, minor surgery, medications and pharmacology, sterilization procedures and autoclave.

MA 195 Office Practicum (1-15) 3 Cr. Hrs.*Prerequisite:* Successful completion of all academic and medical assisting courses.

The student will participate in a non-paid externship under the direction of a physician and the office manager or supervisor. The externship is structured to provide experience in performing administrative and clinical procedures in a physician office, clinic or ambulatory healthcare setting. The student will interact with other healthcare professionals performing and observing skills of a medical assistant. It is an opportunity that will allow a student to apply theory to practice.

MEDICAL TRANSCRIPTION

Dean: William J. Dunbar, Jr., MS

Assistant Dean: Todd Scott, PhD

Coordinator/Instructor: Professor Patricia Rubio, MSA

Instructors: Professor Jody Scheller, MS

Adjunct Faculty

MT 106 Principles of Medical Transcription (2-0) 2 Cr. Hrs.*Prerequisite:* Keyboarding skill of 50 words per minute recommended.

This course provides an introduction to the role of the medical transcriptionist in the healthcare setting. The student will acquire knowledge of the types of forms and content utilized and required in medical transcription. The content of the course will also include the legalities and standards that apply to medical transcription.

MT 108 Physician Office Transcription (2-0) 2 Cr. Hrs.*Prerequisite:* HIT 104 and BIOL 105.

This course is designed to introduce the student to transcription practices utilized in the physician/medical office practice/setting. The importance of accurate transcription will be an essential aspect for this course. Report format and general transcription guidelines will be explored. The student will gain experience by transcribing office, clinic and hospital dictation from many medical specialties.

MT 157 Medical Transcription Seminar (1-0) 1 Cr. Hr.*Prerequisite:* HIT 104, MT 106, MT 108 and BIOL 105.

This course will provide an overview of the law as it is applied to the medical transcription profession, healthcare professionals and patients. Students will also explore the necessity of certification as a Registered Medical Transcriptionist (RMT) and certification as a Certified Medical Transcriptionist (CMT). The student will discuss management techniques that may be employed by the entry-level medical transcriptionist working in a healthcare facility or as an at-home employee. The student will begin preparation for a job search as a medical transcriptionist.

MT 158 Hospital Medical Transcription 1 (3-4) 5 Cr. Hrs.*Prerequisite:* HIT 104, MT 106, MT 108 and BIOL 105.

This course will provide medical transcription skill building opportunities to strengthen and expand medical terminology. The course will emphasize the technique of developing skill with medical transcription documents for each anatomic system. The student will utilize the English language and communication skills during transcription practice.

MT 159 Hospital Medical Transcription 2 (3-4) 5 Cr. Hrs.*Prerequisite:* MT 157 and MT 158.

This course will describe and illustrate various reports that the medical transcriptionist will be expected to transcribe. The student will use production word processing skills in transcribing all of the commonly used medical reports. The student will be expected to format, edit and transcribe medical reports that require an advanced level of medical terminology.

METALLURGY AND MATERIALS SCIENCE

Dean: William J. Dunbar, Jr., MS

Instructors: Assistant Kenneth Pickett, MSIT

Adjunct Faculty

MET 102 Introduction to Materials Science (2-2) 3 Cr. Hrs.*Prerequisite:* None.

This course provides students with a basic introduction to materials science using the principles of science to study the nature of metallic and non-metallic materials used in most industries. Topics covered in the course include atomic structure; elements; states of matter; bonding; crystallization; and mechanical, chemical and physical properties of metallic, polymeric, ceramic and composite materials.

MET 114 Engineering Materials (3-0) 3 Cr. Hrs.*Prerequisite:* MET 102.

This course in materials applications covers ferrous and non-ferrous alloys, powdered metals, ceramics and glass, rubber and polymers. Each material is examined with respect to their advantages and disadvantages, methods of fabrication and joining and specific industrial applications, both current and future.

MET 120 Hazardous Materials Management (2-0) 2 Cr. Hrs.*Prerequisite:* None.

This course provides instruction in the nature of hazardous materials and their interaction with the health and safety of individuals as they relate to industrial metallurgical practices. Topics covered in the course include proper handling of hazardous substances; chemical, physical and biological influences on health; human response to toxins; target organ effects; and regulatory controls used in hazard prevention in the laboratory and materials process workplace.

MET 152 Structure and Properties Laboratory (2-2) 3 Cr. Hrs.*Prerequisite:* MET 102 or may be taken concurrently.

An experience oriented course with emphasis on lab techniques and equipment required for the macro and microstructural evaluation of metals produced by industrial processes. Topics covered in the course include optical systems, sectioning and polishing, mounting techniques, etching, specialized measurement technology and photo-microscopy.

MET 160 Composite Materials (2-2) 3 Cr. Hrs.*Prerequisite:* MET 102.

An introduction to plastic and composite materials used in industry. Emphasis is placed on chemical, physical and mechanical properties of thermoplastic, thermosetting plastics and matrix reinforced composites. Topics covered in the course include the nature of polymeric materials, reinforcements, coatings and adhesives. Industrial forming techniques and applications are also examined.

MET 211 Physical Metallurgy Structures (3-1) 3 Cr. Hrs.*Prerequisite:* MET 102 and MET 152.

An interpretative study incorporating phase equilibria, diffusion, nucleation and growth, solid state transformation, strengthening mechanisms; effects of alloying, deformation, precipitation, recrystallization and grain growth on microstructure. Microstructural interpretation of ferrous and non-ferrous metal is emphasized.

MET 215 Mechanical Properties of Metals (3-1) 3 Cr. Hrs.*Prerequisite:* MET 114.

Students will explore basic elastic and plastic behavior, deformation and dislocations; brittle, ductile and transitional fractures; fatigue, tensile, hardness, impact and stress testing. Course will include a review of industry methods and testing standards. Mechanical forming processes used in the industry including rolling, forging, drawing and other forming techniques will be introduced.

MET 217 Computer Applications in Materials Science (2-2) 3 Cr. Hrs.*Prerequisite:* MET 114 or consent of department and computer experience highly recommended.

An experience-oriented course in specialized computer applications for advanced study in experimentation techniques and analysis, metallurgically-based computer aided engineering tools and statistical methods. Topics covered in the course include an introduction to basic statistics, graphics, experimentation, designed experiments, ANOVA and regression analysis and CAE tools including Stecal.

MET 248 Electron Microscopy and Image Analysis (2-2) 3 Cr. Hrs.*Prerequisite:* MET 152 and BIOL 140 or consent of department.

This course introduces the fundamentals of Scanning Electron Microscopy (SEM) and quantitative Image Analysis (IA) currently used in support of effective materials, characterization and evaluations. Topics covered in the course include microscopy systems and components, applications in fractography and quantifiable measurements used in process and surface failure analysis, materials characterization and product development studies. The course is recommended for students specifically interested in specialized laboratory practices.

MET 271 Corrosion and Corrosion Analysis (2-2) 4 Cr. Hrs.*Prerequisite:* MET 102, MET 114 or consent of department.

Corrosive processes including electrochemical reactions in metals and the chemical degradation of polymeric materials are emphasized. Topics covered in the course include basic electrochemical reactions, nature of corrosive environments, types of corrosion, laboratory corrosion testing, data analysis, interaction with mechanical behavior and fabricated dissimilar materials.

MET 280 Special Problems in Materials Science (3-2) 4 Cr. Hrs.*Prerequisite:* MET 211 or MET 215 or consent of instructor.

Students having adequate backgrounds in this discipline and/or catalog specified prerequisites are encouraged to select a topic associated with metallic or non-metallic materials, related processing, new developments or analytical techniques, and conduct investigations to identify problems, analyze data and make decisions. The results of such evaluations will be presented and reported in a systematic, critical scientific format. Scientific methods including literature search, laboratory evaluations and experimentation are encouraged. Likewise, faculty-directed study will be provided.

MUSIC

Dean: Cheryl D. Hawkins, MS

Instructors: Professor Donald Morelock, MM
Associate Professor James Nissen, DMA
Associate Professor Barton Polot, PhD
Adjunct Faculty

MUSIC 104 Basic Materials in Music Theory (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course provides a step by step approach to the fundamentals of music including notation, scales, intervals and triads.

MUSIC 105 Music Appreciation (3-0) 3 Cr. Hrs.*Prerequisite:* None.

An introduction to music, designed especially to increase understanding and enjoyment of music through intelligent listening. No technical knowledge required, but outside listening and attendance at live performances are required.

MUSIC 107 Music for Elementary Teachers (3-2) 4 Cr. Hrs.*Prerequisite:* None.

This course will provide students with knowledge about fundamental concepts in music such as rhythm, harmony and form through participation in musical behaviors such as playing instruments, moving and singing. It also will provide opportunities for students to develop and execute lessons that address these concepts as well as employing music to facilitate learning in other academic areas such as math, science and language arts. The course is recommended for elementary education majors.

MUSIC 114 Voice Class 1 Elements—Beginners (2-0) 2 Cr. Hrs.*Prerequisite:* None.

This is the first in a series of four voice classes for students interested in developing their vocal skills. This class is designed for young or beginning singers or for singers wishing to refresh their focus on the elements upon which the cultivation of the singing voice is built.

MUSIC 116 Voice Class 2 Cultivation—Intermediate (2-0) 2 Cr. Hrs.
Prerequisite: Consent of instructor.

This is the second in a series of four voice classes for students interested in developing their vocal skills. This is a voice class for singers of intermediate level or for singers wishing to refresh their understanding of the study and cultivation of the singing voice.

MUSIC 117 Choir 1 (2-1) 2 Cr. Hrs.

Prerequisite: Consent of instructor.

This is the first course in which students will explore the principles of choral singing and musicianship. Music of all styles and periods will be included. Choir is an elective for all students, regardless of major field. Additional Choir credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 118, 217, and 218.

MUSIC 118 Choir 2 (2-1) 2 Cr. Hrs.

Prerequisite: MUSIC 117 or consent of instructor.

This is the second course in which students will explore the principles of choral singing and musicianship. Music of all styles and periods will be included. Choir is an elective for all students, regardless of major field. Additional Choir credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 217 and 218.

MUSIC 121 Class Piano 1 (2-0) 2 Cr. Hrs.

Prerequisite: None.

This is the first class in a two course sequence of group piano instruction designed for students with little or no formal piano training. Instruction is given on both electronic and acoustic instruments.

MUSIC 122 Class Piano 2 (2-0) 2 Cr. Hrs.

Prerequisite: MUSIC 121 or equivalent.

This is the second class in a two course sequence of group piano instruction designed for students with little or no formal piano training. Instruction is given on both electronic and acoustic instruments.

MUSIC 124 Chamber Singers 1 (1-1) 1 Cr. Hr.

Prerequisite: Consent of instructor.

This is the first course in which students will explore the concepts of singing and musicianship involved in performing choral music composed for chamber ensemble as well as vocal music composed for chamber ensemble. Music of all styles and periods historically appropriate for a choral chamber ensemble will be included. Chamber Singers is an elective for all students, regardless of major field. Additional Chamber Singers credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 127, 224, and 227.

MUSIC 127 Chamber Singers 2 (1-1) 1 Cr. Hr.

Prerequisite: MUSIC 124 or consent of instructor.

This is the second course in which students will explore the concepts of singing and musicianship involved in performing choral music composed for chamber ensemble as well as vocal music composed for chamber ensemble. Music of all styles and periods historically appropriate for a choral chamber ensemble will be included. Chamber Singers is an elective for all students, regardless of major field. Additional Chamber Singers credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 224 and 227.

MUSIC 131 Applied Music—Piano 1 (1-1) 2 Cr. Hrs.

Prerequisite: None.

Every student studying piano at Schoolcraft College begins with MUSIC 131. This course includes one 45-minute private lesson weekly, a two-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 132 Applied Music—Piano 2 (1-1) 2 Cr. Hrs.

Prerequisite: MUSIC 131.

This is the second in the sequence of piano classes offered at Schoolcraft College. This course includes one 45-minute private lesson weekly, a two-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 133 Applied Music—Voice 1 (1-1) 2 Cr. Hrs.

Prerequisite: None.

Every student studying voice at Schoolcraft College begins with MUSIC 133. This course includes one weekly private lesson, a one-hour weekly studio class and required daily practice as assigned by the instructor. Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 134 Applied Music—Voice 2 (1-1) 2 Cr. Hrs.

Prerequisite: MUSIC 133.

This is the second in the sequence of voice classes at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required daily practice as assigned by the instructor. Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 135 Applied Music—Instrumental 1 (1-1) 2 Cr. Hrs.

Prerequisite: None.

Every student studying instruments of the band and orchestra, including classical guitar, at Schoolcraft College begins with MUSIC 135. This course includes one weekly private lesson, a one-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 136 Applied Music—Instrumental 2 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 135.

This is the second class in the sequence of courses for students studying instruments of the band and orchestra, including classical guitar, at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 137 Sight Singing and Ear Training 1 (2-0) 2 Cr. Hrs.*Prerequisite:* A basic knowledge of scales, key signatures, intervals, and triads.

This course will focus on sight singing melodies outlining the intervals of I and V chords of first and second inversion and non-harmonic tones. The course will include simple rhythmic, melodic and harmonic dictations.

MUSIC 138 Sight Singing and Ear Training 2 (2-0) 2 Cr. Hrs.*Prerequisite:* MUSIC 137.

This is the second course in the Sight Singing and Ear Training sequence. It will cover sight singing melodies, outlining intervals of all triads and dominant seventh chords. In addition, harmonic, melodic, rhythmic dictation, altered non-harmonic tones, secondary dominants, modulation to closely related keys and borrowed altered harmonies will be explored.

MUSIC 140 Jazz Lab Band—Improvisation 1 (2-1) 2 Cr. Hrs.*Prerequisite:* Consent of instructor.

This group is geared to the less experienced jazz player interested in performing contemporary jazz music in the big band setting, but with some emphasis on improvisation. The Lab Band will perform at concerts during the school year. The class is open to all students, high school and college and members of the community. An audition at the beginning of each semester is required. Additional Jazz Lab Band Improvisation credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 240, 258 and 259.

MUSIC 141 Wind Ensemble 1 (2-1) 2 Cr. Hrs.*Prerequisite:* Consent of instructor.

The Schoolcraft Wind Ensemble is open to all brass, woodwind and percussion instrumentalists regardless of major field. The ensemble performs several concerts during the semester as well as at all college commencements. Additional Wind Ensemble credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 241, 245, and 246.

MUSIC 142 Jazz Band 1 (2-1) 2 Cr. Hrs.*Prerequisite:* Consent of instructor.

The Schoolcraft Jazz Band is open to all aspiring jazz performers regardless of major field. The ensemble studies literature from the big band era up through modern jazz arrangements and performs several concerts during the semester. Additional Jazz Band credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 242, 248, and 249.

MUSIC 143 Practice Teaching and Practicum in Piano Teaching 1 (1-1) 2 Cr. Hrs.*Prerequisite:* Consent of Director of Piano Department.

Piano teachers will learn to create and present effective lesson plans that include repertoire, theory concepts, rhythm, tone, touch and hand position through the first semester of piano study.

MUSIC 144 Practice Teaching and Practicum in Piano Teaching 2 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 143.

Piano teachers will learn to create and present effective lesson plans that include repertoire, theory concepts, rhythm, tone, touch and hand position through the second semester of piano study.

MUSIC 149 Popular Music Culture in America (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course serves as an introduction to some of the great works of popular music in the United States, from the songs of colonial America to the present. The course will cover the major periods/styles in popular American music history including but not limited to music of the Westward movement, ragtime and blues, the roots and growth of jazz, country music, folk music, music of Broadway and Tin Pan Alley, the roots and development of rock music and late 20th century developments in popular music, as well as historical, political and sociological background of the United States as pertinent to music history. A background in music is not required.

MUSIC 153 Music Theory 1 (3-0) 3 Cr. Hrs.*Prerequisite:* A basic knowledge of scales, key signatures, intervals and triads.

Harmonic progression; chords of 1st and 2nd inversion will be the format of this course. Phrase structure and cadences will be introduced. Technique of harmonization and non-harmonic tones will be explored.

MUSIC 154 Music Theory 2 (3-0) 3 Cr. Hrs.*Prerequisite:* MUSIC 153.

This is the second course in the Music Theory sequence. Students will be introduced to chord progressions, harmonization, nondominant seventh chords, altered non-harmonic tones, secondary dominants and modulation to closely-related keys. Students will be introduced to music notation software. Students will create an original composition.

MUSIC 155 History of Broadway (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course will look at the history and development of the Broadway musical, from its roots in early American musical entertainment and classical European opera, its heyday in the post-modern era and its evolution in the late 20th century as a result of the music publishing and recording industry. In addition, the course will take an in-depth look at the music and structure of several Broadway masterpieces and how they affected and were affected by American popular culture.

MUSIC 164 Music History 1—17th and 18th Centuries (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course will be a detailed survey of literature, history and musical materials of the Baroque and Classical eras.

MUSIC 165 Music History 2—19th and 20th Centuries (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course is a detailed survey of history and literature of music of the Romantic and 20th century eras.

MUSIC 168 Synthesizer Ensemble 1 (2-1) 3 Cr. Hrs.*Prerequisite:* MUSIC 121 or consent of instructor.

The Schoolcraft Synthesizer Ensemble is open to all musicians with keyboard skills, regardless of major field. The ensemble performs original music and transcribed literature of many genres on electronic musical instruments. The group performs several concerts during the semester. Additional Synthesizer credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 169, 268, and 269.

MUSIC 169 Synthesizer Ensemble 2 (2-1) 3 Cr. Hrs.*Prerequisite:* MUSIC 168 or consent of instructor.

This is the second Schoolcraft Synthesizer Ensemble course which is open to all musicians with keyboard skills, regardless of major field. The ensemble performs original music and transcribed literature of many genres on electronic musical instruments. The group performs several concerts during the semester. Additional Synthesizer credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 268 and 269.

MUSIC 171 Music Technology 1 (3-0) 3 Cr. Hrs.*Prerequisite:* MUSIC 121, MUSIC 104 and or equivalent.

This course is an introduction to the fundamentals of music-making using computer hardware and software. The course will examine the basic functions of digital audio workstation (DAW) software as well as hardware and software synthesizers 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 desktop computer.

MUSIC 172 Music Technology 2 (3-0) 3 Cr. Hrs.*Prerequisite:* MUSIC 171.

This course will deal with advanced functions of Digital Audio Workstation (DAW) software and synthesis with the assistance of MIDI hardware and a desktop computer.

MUSIC 201 Keyboard Skills for Piano Teachers 1 (2-0) 2 Cr. Hrs.*Prerequisite:* Consent of Director of Piano Department.

This is the first course in the Keyboard Skills for Piano Teachers sequence; it is designed to give piano teachers the necessary keyboard skills for teaching beginning through early intermediate level students. The course will cover technical exercises, harmonization, transposition and sight-reading material using the standards of the Michigan Music Teachers Association, the National Piano Guild and other recognized testing organizations.

MUSIC 202 Keyboard Skills for Piano Teachers 2 (2-0) 2 Cr. Hrs.*Prerequisite:* MUSIC 201.

This is the second course in the Keyboard Skills for Piano Teachers sequence; it is designed to give piano teachers the necessary keyboard skills for teaching intermediate through late intermediate level students. The course will cover technical exercises, harmonization, transposition and sight-reading material using the standards of the Michigan Music Teachers Association, the National Piano Guild and other recognized testing organizations.

MUSIC 204 Keyboard Skills for Piano Teachers 3 (2-0) 2 Cr. Hrs.*Prerequisite:* MUSIC 202.

This is the third course in the Keyboard Skills for Piano Teachers sequence; it is designed to give piano teachers the necessary keyboard skills for teaching late intermediate through early advanced level students. The course will cover technical exercises, harmonization, transposition and sight-reading material using the standards of the Michigan Music Teachers Association, the National Piano Guild and other recognized testing organizations.

MUSIC 205 Keyboard Skills for Piano Teachers 4 (2-0) 2 Cr. Hrs.*Prerequisite:* MUSIC 204.

This is the fourth course in the Keyboard Skills for Piano Teachers sequence; it is designed to give piano teachers the necessary keyboard skills for teaching advanced level students. The course will cover technical exercises, harmonization, transposition and sight-reading material using the standards of the Michigan Music Teachers Association, the National Piano Guild and other recognized testing organizations.

MUSIC 214 Voice Class 3 Performance—Advanced (2-0) 2 Cr. Hrs.*Prerequisite:* Consent of instructor.

This is the third in a series of four voice classes for students interested in developing their vocal skills. It is a voice class for singers preparing for a career in singing or for advanced singers wishing to learn the art of performance before an audience.

MUSIC 216 Voice Class 4 Performance—Advanced (2-0) 2 Cr. Hrs.*Prerequisite:* Consent of instructor.

This is the final course in a series of four voice classes for students interested in developing their vocal skills. This is a voice class for singers preparing for a career in singing or for advanced singers wishing to learn the art of performance before an audience.

MUSIC 217 Choir 3 (2-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 118 or consent of instructor.

This is the third course in which students will explore the principles of choral singing and musicianship. Music of all styles and periods will be included. Choir is an elective for all students, regardless of major field. Additional Choir credits may be earned in a future semester by enrolling in MUSIC 218.

MUSIC 218 Choir 4 (2-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 217 or consent of instructor.

This is the fourth and last course in which students will explore the principles of choral singing and musicianship. Music of all styles and periods will be included. Choir is an elective for all students, regardless of major field.

MUSIC 224 Chamber Singers 3 (1-1) 1 Cr. Hr.*Prerequisite:* MUSIC 127 or consent of instructor.

This is the third course in which students will explore the concepts of singing and musicianship involved in performing choral music composed for chamber ensemble as well as vocal music composed for chamber ensemble. Music of all styles and periods historically appropriate for a choral chamber ensemble will be included. Chamber Singers is an elective for all students, regardless of major field. Additional Chamber Singers credits may be earned in future semesters by enrolling in the following course: MUSIC 227.

MUSIC 227 Chamber Singers 4 (1-1) 1 Cr. Hr.*Prerequisite:* MUSIC 224 or consent of instructor.

This is the last course in which students will explore the principles of singing and musicianship involved in performing choral music composed for chamber ensemble as well as vocal music composed for chamber ensemble. Music of all styles and periods historically appropriate for a choral chamber ensemble will be included. Chamber Singers is an elective for all students, regardless of major field.

MUSIC 231 Applied Music—Piano 3 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 132.

This is the third course in the sequence of piano classes offered at Schoolcraft College. This course includes one 45-minute private lesson weekly, a two-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 232 Applied Music—Piano 4 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 231.

This is the fourth course in the sequence of piano classes offered at Schoolcraft College. This course includes one 45-minute private lesson weekly, a two-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 233 Applied Music—Voice 3 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 134.

This is the third in the sequence of voice classes at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required daily practice as assigned by the instructor. Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 234 Applied Music—Voice 4 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 233.

This is the fourth in the sequence of voice classes at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required daily practice as assigned by the instructor. Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 235 Applied Music—Instrumental 3 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 136.

This is the third class in the sequence of courses for students studying instruments of the band and orchestra, including classical guitar, at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 236 Applied Music—Instrumental 4 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 235.

This is the fourth class in the sequence of courses for students studying instruments of the band and orchestra, including classical guitar, at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 240 Jazz Lab Band—Improvisation 2 (2-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 140 or consent of instructor.

This group is geared to the less experienced jazz player interested in performing contemporary jazz music in the big band setting, but with some emphasis on improvisation. The Lab Band will perform at concerts during the school year. This is the second course in a series and the class is open to all students, high school and college, and members of the community. An audition at the beginning of each semester is required. Additional Jazz Lab Band Improvisation credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 258 and 259.

MUSIC 241 Wind Ensemble 2 (2-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 141 or consent of instructor.

This is the second Schoolcraft Wind Ensemble course which is open to all brass, woodwind and percussion instrumentalists regardless of major field. The ensemble performs several concerts during the semester as well as at all college commencements. Additional Wind Ensemble credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 245 and 246.

MUSIC 242 Jazz Band 2 (2-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 142 or consent of instructor.

This is the second Schoolcraft Jazz Band course which is open to all aspiring jazz performers regardless of major field. The ensemble studies literature from the big band era up through modern jazz arrangements and performs several concerts during the semester. Additional Jazz Band credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 248 and 249.

MUSIC 243 Practice Teaching and Practicum in Piano Teaching 3 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 144.

Piano teachers will learn to create and present effective lesson plans that include repertoire, theory concepts, rhythm, tone, touch and hand position through the third semester of piano study.

MUSIC 244 Practice Teaching and Practicum in Piano Teaching 4 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 243.

Piano teachers will learn to create and present effective lesson plans that include repertoire, theory concepts, rhythm, tone, touch and hand position through the fourth semester of piano study.

MUSIC 245 Wind Ensemble 3 (2-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 241 or consent of instructor.

This is the third Schoolcraft Wind Ensemble course which is open to all brass, woodwind and percussion instrumentalists regardless of major field. The ensemble performs several concerts during the semester as well as at all college commencements. Additional Wind Ensemble credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 246.

MUSIC 246 Wind Ensemble 4 (2-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 245 or consent of instructor.

This is the fourth Schoolcraft Wind Ensemble course which is open to all brass, woodwind and percussion instrumentalists regardless of major field. The ensemble performs several concerts during the semester as well as at all college commencements.

MUSIC 247 Piano Teaching Techniques and Materials 1 (3-0) 3 Cr. Hrs.*Prerequisite:* Consent of Director of Piano Department.

This course is designed for teachers enrolled in the Piano Teaching Certificate Program or students who have special permission from the Director of the Piano Department. This introductory level course focuses on the following topics: developing a professional piano student, setting up a small business, elementary methods and materials, supplemental materials in sight reading, harmonization, transposition and knowledge of professional organizations.

MUSIC 248 Jazz Band 3 (2-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 242 or consent of instructor.

This is the third Schoolcraft Jazz Band course which is open to all aspiring jazz performers regardless of major field. The ensemble studies literature from the big band era up through modern jazz arrangements and performs several concerts during the semester. Additional Jazz Band credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 249.

MUSIC 249 Jazz Band 4 (2-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 248 or consent of instructor.

This is the fourth Schoolcraft Jazz Band course which is open to all aspiring jazz performers regardless of major field. The ensemble studies literature from the big band era up through modern jazz arrangements and performs several concerts during the semester.

MUSIC 250 Music Theory 3 (3-0) 3 Cr. Hrs.*Prerequisite:* MUSIC 154.

This is the third course in the Music Theory sequence. Students will be introduced to borrowed chords, augmented and Neapolitan sixth chords, diminished seventh chords, chromatic mediant and modulation to foreign keys. Students will also analyze 18th and 19th century compositions.

MUSIC 252 Music Theory 4 (4-0) 4 Cr. Hrs.*Prerequisite:* MUSIC 250.

This is the last course in the Music Theory sequence. Students will be introduced to 18th century counterpoint: the study, analysis and composition of two-voice invention and three-voice fugue. The student will also be introduced to 20th century forms and harmonic tendencies: study, analysis and composition of work utilizing the 12-tone system will be among the techniques explored.

MUSIC 253 Practice Teaching and Practicum in Piano Teaching 5 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 244.

Piano teachers will learn to create and present effective lesson plans that include repertoire, theory concepts, rhythm, tone, touch and hand position through the fifth semester of piano study.

MUSIC 256 Practice Teaching and Practicum in Piano Teaching 6 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 253.

Piano teachers will learn to create and present effective lesson plans that include repertoire, theory concepts, rhythm, tone, touch and hand position through the sixth semester of piano study.

MUSIC 257 Piano Teaching Techniques and Materials 2 (3-0) 3 Cr. Hrs.*Prerequisite:* Consent of Director of Piano Department.

This course is designed for teachers enrolled in the Piano Teaching Certificate Program. It is the second course in a series and emphasizes techniques and methods for teaching the intermediate piano student.

MUSIC 258 Jazz Lab Band—Improvisation 3 (2-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 240 or consent of instructor.

This group is geared to the less experienced jazz player interested in performing contemporary jazz music in the big band setting, but with some emphasis on improvisation. The Lab Band will perform at concerts during the school year. This is the third course in a series and the class is open to all students, high school and college, and members of the community. An audition at the beginning of each semester is required. Additional Jazz Lab Band Improvisation credits may be earned in future semesters by enrolling in MUSIC 259.

MUSIC 259 Jazz Lab Band—Improvisation 4 (2-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 258 or consent of instructor.

This group is geared to the less experienced jazz player interested in performing contemporary jazz music in the big band setting, but with some emphasis on improvisation. The Lab Band will perform at concerts during the school year. This is the fourth course in a series and the class is open to all students, high school and college, and members of the community. An audition at the beginning of each semester is required.

MUSIC 263 Practice Teaching and Practicum in Piano Teaching 7 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 256.

Piano teachers will learn to create and present effective lesson plans that include repertoire, theory concepts, rhythm, tone, touch and hand position through the seventh semester of piano study.

MUSIC 264 Practice Teaching and Practicum in Piano Teaching 8 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 263.

Piano teachers will learn to create and present effective lesson plans that include repertoire, theory concepts, rhythm, tone, touch and hand position through the eighth semester of piano study.

MUSIC 268 Synthesizer Ensemble 3 (2-1) 3 Cr. Hrs.*Prerequisite:* MUSIC 169 or consent of instructor.

This is the third Schoolcraft Synthesizer Ensemble course which is open to all musicians with keyboard skills, regardless of major field. The ensemble performs original music and transcribed literature of many genres on electronic musical instruments. The group performs several concerts during the semester. Additional Synthesizer credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 269.

MUSIC 269 Synthesizer Ensemble 4 (2-1) 3 Cr. Hrs.*Prerequisite:* MUSIC 268 or consent of instructor.

This is the fourth Schoolcraft Synthesizer Ensemble class which is open to all musicians with keyboard skills, regardless of major field. The ensemble performs original music and transcribed literature of many genres on electronic musical instruments. The group performs several concerts during the semester.

MUSIC 277 Piano Teaching Techniques and Materials 3 (3-0) 3 Cr. Hrs.*Prerequisite:* Consent of Director of Piano Department.

This course is designed for teachers enrolled in the Piano Teaching Certificate Program. It is the third course in a series and emphasizes techniques and methods for teaching the late intermediate and early advanced piano student.

MUSIC 282 Applied Music—Piano 5 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 232.

This is the fifth course in the sequence of piano classes offered at Schoolcraft College. This course includes one 45-minute private lesson weekly, a two-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 283 Applied Music—Piano 6 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 282.

This is the sixth course in the sequence of piano classes offered at Schoolcraft College. This course includes one 45-minute private lesson weekly, a two-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 284 Applied Music—Piano 7 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 283.

This is the seventh course in the sequence of piano classes offered at Schoolcraft College. This course includes one 45-minute private lesson weekly, a two-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 285 Applied Music—Piano 8 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 284.

This is the eighth course in the sequence of piano classes offered at Schoolcraft College. This course includes one 45-minute private lesson weekly, a two-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 286 Applied Music—Voice 5 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 234.

This is the fifth in the sequence of voice classes at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required daily practice as assigned by the instructor. Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 287 Applied Music—Voice 6 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 286.

This is the sixth in the sequence of voice classes at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required daily practice as assigned by the instructor. Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 288 Applied Music—Voice 7 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 287.

This is the seventh in the sequence of voice classes at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required daily practice as assigned by the instructor. Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 289 Applied Music—Voice 8 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 288.

This is the eighth in the sequence of voice classes at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required daily practice as assigned by the instructor. Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 290 Applied Music—Instrumental 5 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 236.

This is the fifth class in the sequence of courses for students studying instruments of the band and orchestra, including classical guitar, at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 291 Applied Music—Instrumental 6 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 290.

This is the sixth class in the sequence of courses for students studying instruments of the band and orchestra, including classical guitar, at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 292 Applied Music—Instrumental 7 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 291.

This is the seventh class in the sequence of courses for students studying instruments of the band and orchestra, including classical guitar, at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 293 Applied Music—Instrumental 8 (1-1) 2 Cr. Hrs.*Prerequisite:* MUSIC 292.

This is the eighth class in the sequence of courses for students studying instruments of the band and orchestra, including classical guitar, at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

MUSIC 298 Special Music Projects for Honors Studies—Performance/Composition/Research (2-0) 2 Cr. Hrs.

Prerequisite: Dean's list status (GPA 3.5), MUSIC 154 and two semesters of Applied Voice or Instrumental Music or faculty approval. Student eligibility will be determined during interviews with the instructor.

This course provides 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.

MUSIC 299 Special Music Projects for Honors Studies—Performance/Composition/Research (2-0) 2 Cr. Hrs.

Prerequisite: Dean's list status (GPA 3.5), MUSIC 154 and two semesters of Applied Voice or Instrumental Music or faculty approval. Student eligibility will be determined during interviews with the instructor.

This course provides an opportunity for the talented student to explore individually, in depth, under the direction of a faculty member, a performance, composition or research related project. This course provides an opportunity to present traditional musical events such as a recital or a concert or to learn a new technology.

NURSING

Dean: William J. Dunbar, Jr., MS

Director of Nursing

Instructors: Professor Elizabeth Quell, MSN

Professor Deborah Vendittelli, MSN

Associate Professor Holly Austin, MSN

Associate Professor Tamara Campbell, MSN

Associate Professor Marlynn Marroso, MSN

Associate Professor Nancy Palmer, MSN

Associate Professor Cindy Sheppard, MSN

Adjunct Faculty

NURS 102 Nursing Informatics (1-0) 1 Cr. Hr.

Prerequisite: BIOL 050 or high school biology, CHEM 051 or high school chemistry, MATH 053, BIOL 236, or BIOL 237 and BIOL 238 with a grade of 3.0 or better; consent of department. Acceptance to the Nursing Career Ladder Curriculum for the forthcoming year.

This course provides an introduction to computers and their use in healthcare. Technology and internet applications will be discussed and utilized as tools for the nursing student and nurse to provide optimal patient care. Medical terminology and keyboarding skills are introduced and reinforced.

NURS 104 Pharmacology for Nurses (3-0) 3 Cr. Hrs.

Prerequisite: BIOL 050 or high school biology, CHEM 051 or high school chemistry, MATH 053, BIOL 236, or BIOL 237 and BIOL 238 with a grade of 3.0 or better; consent of department. Acceptance to the Nursing Career Ladder Curriculum for the forthcoming or current year.

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, medication calculations and dosages, example drugs and patient teaching for specified drug classifications. The nursing process will be utilized to provide beginning knowledge related to safe medication administration.

NURS 110 Fundamentals of Nursing (5-12) 9 Cr. Hrs.

Prerequisite: BIOL 050 or high school biology, CHEM 051 or high school chemistry, MATH 053, BIOL 236, or BIOL 237 and BIOL 238 with a grade of 3.0 or better; consent of department. Corequisite: BIOL 114, NURS 102 and NURS 104 must be taken prior to or along with NURS 110.

This course provides an introduction to the theory and practice of nursing. The student will apply knowledge of health, nutrition, spiritual/cultural diversity, gerontological concepts and ethical/legal standards. Utilization of critical thinking, the nursing process and psychosocial principles will be necessary to meet the needs of the chronically ill and elderly patient. Basic nursing skills will be performed in laboratory, clinical and community settings.

NURS 124 Medical Nursing (2.5-7.5) 5 Cr. Hrs.

Prerequisite: NURS 102, NURS 104, NURS 110 and BIOL 114.

This course emphasizes application of the nursing process and critical thinking skills in caring for adult clients experiencing medical alterations. Theoretical content will focus on cardiovascular, renal, endocrine and immune systems as well as fluid/electrolyte and acid base balance while utilizing evidence-based principles of nursing to promote optimal health in acute and community settings.

NURS 125 Surgical Nursing (2.5-7.5) 5 Cr. Hrs.

Prerequisite: NURS 102, NURS 104, NURS 110 and BIOL 114.

This course emphasizes application of the nursing process and critical thinking skills in caring for adult clients experiencing surgical alterations. Theoretical content will focus on musculoskeletal, neurological, respiratory and gastrointestinal systems as well as peri-operative care while utilizing evidence-based principles of nursing to promote optimal health in acute and community settings.

NURS 128 Maternal-Child Nursing 1 (2.5-7.5) 5 Cr. Hrs.

Prerequisite: NURS 102, NURS 104, NURS 110 and BIOL 114.

This course emphasizes application of the nursing process and critical thinking skills in caring for the childbearing family and pediatric clients. Theoretical content will focus on human sexuality, normal pregnancy, labor, delivery, post partum, growth and development and common uncomplicated pediatric health disorders. Clinical practice will include maternity and pediatric experiences in acute and community settings.

NURS 139 Advanced Concepts in Practical Nursing (1.5-4.5) 3 Cr. Hrs.

Prerequisite: NURS 124, NURS 125, NURS 128 and PSYCH 239, or may be taken concurrently.

This capstone course covers advanced medical-surgical topics as well as issues related to licensure and employment for the practical nurse. In clinical practice, emphasis is placed on functioning with greater independence in providing care to groups of patients. Students gain experience as an active member of the nursing team while working with staff personnel.

NURS 245 Advanced Medical-Surgical Nursing (2.5-7.5) 5 Cr. Hrs.

Prerequisite: NURS 124, NURS 125 and NURS 128.

This course emphasizes application of the nursing process and critical thinking skills in caring for adult clients experiencing complex medical and/or surgical alterations. Theoretical content will focus on selected body systems while utilizing evidence-based principles of nursing to promote optimal health in acute and community settings.

NURS 246 Psychiatric Mental Health Nursing (2-6) 4 Cr. Hrs.

Prerequisite: NURS 124, NURS 125, NURS 128 and PSYCH 239.

This course emphasizes application of the nursing process and critical thinking skills in caring for adult, child and adolescent clients experiencing acute or chronic alterations in biopsychosocial functioning. Theoretical content will focus on psychiatric and cognitive disorders as well as difficulties coping with daily living. Clinical experiences are provided in acute and community settings.

NURS 248 Maternal-Child Nursing 2 (2.5-7.5) 5 Cr. Hrs.

Prerequisite: NURS 124, NURS 125 and NURS 128.

This course emphasizes application of the nursing process and critical thinking skills in caring for the childbearing family and pediatric clients. Theoretical content will focus on complex obstetrical and pediatric health disorders. Clinical practice will include maternity and pediatric experiences in acute and community settings.

NURS 259 Advanced Concepts in Registered Nursing (2-9) 5 Cr. Hrs.*Prerequisite:* NURS 245, NURS 246 and NURS 248.

This capstone course emphasizes application of the nursing process and critical thinking skills to care for groups of complex clients as an active member of the nursing team in acute and community settings. Theoretical content will focus on principles of leadership and management as well as issues related to licensure and employment for the registered nurse.

NURSING ASSISTANT TRAINING PROGRAM

Dean: William J. Dunbar, Jr., MS

Coordinator: Professor Deborah Vendittelli, MSN

Instructors: Adjunct Faculty

NATP 110 Nursing Assistant Preparation (3-7) 10 Cr. Hrs.*Prerequisite:* None.

This course is designed to prepare an individual in the role of the nursing assistant. Students will explore communication and interpersonal skills, infection control, safety/emergency procedures, promotion of resident's independence/rights, basic nursing skills, personal and restorative care skills, care of mental health and social services needs, care of cognitively impaired residents and documentation. Basic nursing assistant skills will be performed in laboratory and geriatric-focused clinical facilities.

OFFICE INFORMATION SYSTEMS

Dean: William J. Dunbar, Jr., MS

Instructors: Associate Professor Timothy Ellis, BBA

Adjunct Faculty

OIS 100 Keyboarding 1 (2-0) 2 Cr. Hrs.*Prerequisite:* None.

Students will learn how to keyboard using the touch control method. Development of proper keyboarding techniques while building basic accuracy and speed will be emphasized. Today's technology-driven environment makes keyboarding one of the most widely used skills as we utilize computers for work, school and in our personal lives.

OIS 102 Keyboarding 2 (2-0) 2 Cr. Hrs.*Prerequisite:* OIS 100 or equivalent.

This course continues the development of accuracy and speed in keyboarding. Students will enhance their keyboarding skills and incorporate them into the formatting of various business documents, reports and tables.

OIS 105 Office Communication—Editing Skills (3-0) 3 Cr. Hrs.*Prerequisite:* A skill level of ENG 050 or higher on the placement test. OIS 102 strongly recommended.

The ability to communicate clearly and accurately has been identified by employers as their number one priority. This course is designed to review and incorporate the principles of grammar, punctuation, vocabulary and spelling into the writing of or proofreading and editing of business documents.

OIS 165 Microsoft Word for Windows (3-0) 3 Cr. Hrs.*Prerequisite:* OIS 105 or equivalent.

This course is designed to provide practical hands-on experience using Microsoft Word for Windows. Students will create, format, and edit business documents. In addition, students will work with tables, charts, graphs, diagrams, templates and wizards, AutoText, Web pages and hyperlinks. While manipulating text, students will learn to add visual appeal to documents as well as how to use writing tools and special features.

OIS 185 Business Presentation 1—Fundamental Concepts (3-0) 3 Cr. Hrs.*Prerequisite:* OIS 165 or equivalent.

This course will introduce students to the fundamental concepts of business presentations using Microsoft's PowerPoint software. PowerPoint presentations are one of the most widely used communication tools in today's workplace. Students will create basic business presentations, charts, graphs and flyers. Students will learn to link and embed objects and files as well as work with drawing tools, icons, various fonts and color to create a powerful presentation.

OIS 195 Time and Project Management (1-0) 1 Cr. Hr.*Prerequisite:* None.

In today's busy world, time management is an essential skill needed both professionally and personally. This course will assist students in gaining control of their office activities by showing them how to set and prioritize goals and events around individual values using a day planner.

OIS 255 Office Procedures (2-0) 2 Cr. Hrs.*Prerequisite:* OIS 100 or equivalent.

This course is designed to enhance the students' knowledge regarding basic office skills. Students will learn office functions such as reprographics, records management, telephone techniques and etiquette, mailing and shipping services, meeting and conference planning, travel arrangements, as well as the importance of written communication and public relations.

OIS 260 Office Administration (3-0) 3 Cr. Hrs.*Prerequisite:* OIS 255 recommended.

Today's administrative office manager must be an effective communicator who possesses strong skills in problem solving, time management, multi-tasking and human relations. This course concentrates on the principles of administrative office management, the importance of managing administrative services and operations and the skills and attitudes needed to be successful in today's office.

OIS 265 Advanced Microsoft Word for Windows (3-0) 3 Cr. Hrs.*Prerequisite:* OIS 165.

This course is a continuation of OIS 165 and will focus on the advanced functions of Microsoft Word for Windows. Students will create and modify styles, macros, footnotes and endnotes. In addition, students will work with sorting and selecting text, merging and managing documents, preparing forms, applying special features, adding visual effects and using WordArt.

PHILOSOPHY

Dean: Cheryl D. Hawkins, MS

Instructors: Assistant Professor Mark Huston, PhD
Adjunct Faculty

PHIL 243 An Introduction to Philosophy (3-0) 3 Cr. Hrs.

Prerequisite: None.

Designed to familiarize the student with philosophy as a foundation for life, this course provides an introduction to questions in metaphysics, epistemology, ethics, social and political philosophy and the philosophy of religion. Classical and modern philosophers from Western, Asian, African and Native American traditions are presented. Critical thinking and an application of theory to contemporary issues are emphasized.

PHIL 247 Logic (4-0) 4 Cr. Hrs.

Prerequisite: None.

This course is designed to assist the student in distinguishing good and bad reasoning. The course will address both informal logic which focuses on arguments in everyday 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 arguments on contemporary issues in the public forum.

PHIL 277 Ethical Problems (3-0) 3 Cr. Hrs.

Prerequisite: None.

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 to explore alternate solutions to present day moral problems.

PHYSICAL EDUCATION

Dean: William Dunbar, MS

Director: Leslie Petty, EdD

Instructors: Adjunct Faculty

PE 104 Physical Fitness and Conditioning (1-1) 2 Cr. Hrs.

Prerequisite: None.

This course stresses vigorous body conditioning through progressive exercises, stretching, weight machine and free weight use. Cardiovascular fitness will be emphasized.

PE 105 Beginning Resistance Training (1-1) 2 Cr. Hrs.

Prerequisite: None.

Instruction will stress the development of strong muscle growth and bone health, as well as improvement of cardiovascular function through the use of resistance bands, X-er tubes, stability balls and free weights.

PE 106 Beginning Swimming (1-1) 2 Cr. Hrs.

Prerequisite: None.

This course is for the student who has little or no skill and knowledge of swimming techniques. Fundamental instruction in the basic swimming strokes, including front crawl, back crawl, elementary back stroke, side stroke, elementary diving and water safety skills will be introduced.

PE 115 Aerobic Dance Fitness (1-1) 2 Cr. Hrs.

Prerequisite: None.

Instruction will stress the development of an individual's aerobic capacity and cardiovascular endurance through aerobic dance and dance exercise.

PE 116 Intermediate Swimming (1-1) 2 Cr. Hrs.

Prerequisite: None.

For students who have the ability to swim two lengths of the pool and stay afloat for three minutes. Designed to increase skill and knowledge in the basic swimming strokes, diving and water safety skills. Some stroke variations and synchronized swimming techniques may be covered.

PE 121 First Aid and Personal Safety (2-0) 2 Cr. Hrs.

Prerequisite: None.

This course introduces accident prevention and care of victims using emergency-skill procedures. Cardiopulmonary resuscitation (CPR) for infant, child and adult and Automated External Defibrillator (A.E.D.) use will be presented. American Red Cross Certification Cards will be awarded to those successfully completing the requirements.

PE 132 Beginning Tennis (1-1) 2 Cr. Hrs.

Prerequisite: None.

This course provides students with a basic history of tennis, techniques, fundamental skills, strategy, rules and the opportunity to participate in a competitive situation.

PE 141 Basketball (1-1) 2 Cr. Hrs.

Prerequisite: None.

This course covers the history of the sport, basic techniques, fundamental skills, strategy and rules and gives students the opportunity to participate in a competitive situation.

PE 157 Paddleball/Racquetball (1-1) 2 Cr. Hrs.

Prerequisite: None.

This course provides instruction in rules, safety practices, etiquette, strategy and skills of paddleball and racquetball. Tournament play in singles, doubles and cut-throat is included.

PE 166 Self Defense (1-1) 2 Cr. Hrs.

Prerequisite: A physical examination is recommended.

This course combines various methods of self-defense with an emphasis on Judo. Related techniques of Jujitsu and Karate will be covered.

PE 194 Weight Training (1-1) 2 Cr. Hrs.

Prerequisite: None.

Various methods of weight training for both men and women are taught. Proper lifting techniques learned. The concept of "total fitness and body awareness" is stressed.

PE 202 Lifestyle Fitness—Wellness (1-1) 2 Cr. Hrs.

Prerequisite: None.

This course will introduce the student through lecture and practical demonstration to the various methods and benefits of physical and emotional fitness/wellness activities. A wide variety of topics pertinent to the physical and mental health and well-being of the individual will be presented and practiced, providing the framework for the student to make sound health choices.

- PE 240 Physical Education for Elementary Teachers (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 Students will receive instruction in the use of basic movement, games, relays, stunts and organization for the early and later elementary grades. Emphasis is on the organization for P.E. at these levels. Students are required to make arrangements for observation of elementary classes during the latter part of the semester.

PHYSICS

Dean: Cheryl D. Hawkins, MS
 Assistant Dean of Sciences

Instructors: Associate Professor Paul Holody, PhD
 Assistant Professor Christopher Wood, MS
 Adjunct Faculty

- PHYS 051 Basic Physics (4-1) 4 Cr. Hrs.**
Prerequisite: MATH 053 or one year of high school algebra.
 This course is designed for students who have had no previous course in physics or need a review of the subject to prepare for college physics. Basic concepts in mechanics, sound, heat, electricity, light and modern physics are explored through lecture demonstrations, interactive activities and laboratory work.
- PHYS 104 Introduction to Astronomy (3-2) 4 Cr. Hrs.**
Prerequisite: MATH 053 or one year of high school algebra.
 Physics 104 is a one-semester introduction to astronomy that utilizes laboratories and basic mathematics to assist in, and expand upon, the exploration of the course topics. Earth-sky relationships, the solar system, stellar astronomy, cosmology and astrobiology will be covered. Several space exploration missions will also be featured. This course is not intended for science majors.
- PHYS 123 Applied Physics (4-2) 5 Cr. Hrs.**
Prerequisite: MATH 113.
 This course in applied physics is designed for technical, business and applied health programs. Using trigonometry, the traditional topics of kinematics, dynamics, mechanics, heat, acoustics, electricity and magnetism, optics, modern physics and nuclear physics are treated in a practical and applied fashion with emphasis on laboratory work and scientific procedures. (This course may be used in place of PHYS 051.)
- PHYS 181 General Physics 1 (4-2) 4 Cr. Hrs.**
Prerequisite: PHYS 051 or one year of high school physics or PHYS 123 and MATH 119.
 This first semester course in general physics is designed for pre-professional students. Using algebra and trigonometry, the traditional topics of mechanics, fluids, energy, heat and sound are explored through lecture demonstrations, interactive activities and laboratory work. This course is not for engineering students or physics majors.
- PHYS 182 General Physics 2 (4-2) 4 Cr. Hrs.**
Prerequisite: PHYS 181.
 This second semester course is a continuation of PHYS 181. Using algebra and trigonometry, the more advanced topics of electricity, magnetism, light and modern physics are explored through lecture demonstrations, interactive activities and laboratory work. This course is not for engineering students or physics majors.

- PHYS 211 Physics for Scientists and Engineers 1 (5-2) 5 Cr. Hrs.**
Prerequisite: PHYS 051 or high school physics and MATH 150.
 This first semester, calculus-based course is designed for engineering students and science majors. Traditional topics of kinematics, dynamics, energy, fluids, heat, and sound are investigated through lecture demonstrations, simulations and laboratory work.

- PHYS 212 Physics for Scientists and Engineers 2 (5-2) 5 Cr. Hrs.**
Prerequisite: PHYS 211 with grade of 2.0 or better.
 This second semester, calculus-based course is a continuation of PHYS 211. Advanced topics such as electricity, magnetism, light and modern physics are investigated through lecture demonstration, simulations and laboratory work. This course is designed for engineering students and science majors.

POLITICAL SCIENCE

Dean: Cheryl D. Hawkins, MS
 Assistant Dean of Sciences

Instructors: Professor Kent Kirkpatrick, MA
 Associate Professor Alexander Thomson, PhD
 Adjunct Faculty

- POLS 105 Survey of American Government (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course is an introductory study of the American political system. Emphasis is placed on historical and contemporary political theories and ideologies as well as on political institutions, parties and interest groups. You will engage in analysis of decision-makers, power and controversial issues.
- POLS 109 State and Local Government (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course is an introductory study of America's state and local governments. Emphasis is placed on the nature of state constitutions, the structure and operation of state executive/legislative/judicial branches, and the organization and functioning of local governments. State/federal and state/local relations will also be covered in this course. Students will engage in analysis of decision-makers, power and controversial issues.
- POLS 205 Political Parties (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course examines the organization and functions of American political parties. Emphasis is placed on the nature of political campaigns, party conventions, the organization and functioning of political parties and citizen participation in politics. A historical review of parties and their ideological developments is also included.
- POLS 207 Comparative Government (3-0) 3 Cr. Hrs.**
Prerequisite: None.
 This course is a comparative study of political communities. The course examines the development and spread of varied political ideologies (communism, fascism and liberalism) and their impact on crafting different approaches to governmental organization. A global approach to this topic will involve examining individual countries and regions from around the world.

POLS 209 International Relations (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course provides an examination of the social, economic and political forces that define international relations. Using the major theoretical approaches of the discipline, students will examine the major issues, actors and governmental structures that shape the political landscape of the world.

POLS 298 Political Science Honors Studies (.5-2.5) 3 Cr. Hrs.*Prerequisite:* Successful completion of POLS 105 and written approval from the instructor and department representative.

An opportunity for a student to explore individually, in depth, under the guidance of a faculty member, a topic, issue, problem or fieldwork experience pertaining to or within a government office, political party, interest groups or other organization that allows them to relate their experiences to the study of political science. This study arrangement will take place under the guidance of a departmental faculty member.

PSYCHOLOGY

Dean: Cheryl D. Hawkins, MS

Assistant Dean of Sciences

Instructors: Associate Professor Colleen Pilgrim, PhD

Assistant Professor Deborah Regner, MS

Instructor Lisa Jackson, PhD

Adjunct Faculty

PSYCH 153 Human Relations (3-0) 3 Cr. Hrs.*Prerequisite:* None.

This course is designed particularly for students in the career curricula. The course focuses upon a better understanding of human behavior as related to interpersonal relations on the job. Foundations of human behavior; strategies for effective human relations; fundamental skills of working as a team leader and team member; and ways of anticipating, preventing and coping with challenges of human relations are major areas of study.

PSYCH 201 Introductory Psychology (4-0) 4 Cr. Hrs.*Prerequisite:* Recommended successful completion of courses in biology and social science at the 100 level.

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; and the nervous system, perception, learning, intelligence, motivation and emotion and social relationships will be explored.

PSYCH 205 Psychology of Adjustment (3-0) 3 Cr. Hrs.*Prerequisite:* Twenty-six hours of transferable credit or consent of department.

Factors and processes involved in the adjustment of the individual to personal and social environment are the main focus of this course. Essentials for the development of an effective and mentally healthy individual are emphasized. Foundations for adjustment, personal lifestyle adjustment, interpersonal relationships, adjustment throughout life and coping with maladjustment are major areas of study.

PSYCH 207 Social Psychology (4-0) 4 Cr. Hrs.*Prerequisite:* PSYCH 201.

Regarded as a core area in psychology, social psychology examines the influence of social factors on human behavior. Particular topics include aggression, prejudice, group processes, attitude formation, the law, prosocial behavior, interpersonal attraction and social cognition.

PSYCH 209 Child Psychology (3-0) 3 Cr. Hrs.*Prerequisite:* PSYCH 201.

This course examines the general characteristics of development, development of social behavior, feelings, emotions, language, growth of understanding and interests, with emphasis on personality and problems of adjustment.

PSYCH 219 Adult Development (3-0) 3 Cr. Hrs.*Prerequisite:* Twenty-six hours of transferable credit or consent of department. Successful completion of PSYCH 201 is highly recommended.

This course studies adult development and aging. It focuses on the developmental changes related to biological, psychological and social processes. Coping strategies and intervention techniques will be examined.

PSYCH 229 Life-Span Developmental Psychology (4-0) 4 Cr. Hrs.*Prerequisite:* PSYCH 201.

Human development from conception through death is examined. Biological, cognitive and psychosocial development topics are explored with an understanding of the theories and research findings across the life-span.

PSYCH 239 Abnormal Psychology (3-0) 3 Cr. Hrs.*Prerequisite:* PSYCH 201.

This course examines various psychological disorders from a contemporary perspective, specifically exploring anxiety disorders (phobias, obsessive compulsive disorder and post traumatic stress disorder), personality disorders (borderline, anti-social and dissociate disorders), mood disorders (depression and bi-polar disorder) and schizophrenia. The underlying pathology and treatments of each disorder will be covered.

QUALITY MANAGEMENT

Dean: William J. Dunbar, Jr., MS

Instructors: Adjunct Faculty

QM 107 Quality Planning and Team Building (3-0) 3 Cr. Hrs.*Prerequisite:* None.

Planning effective quality systems including error prevention through team building to support both recommended procedures and customer satisfaction is emphasized. Students will be introduced to planning methods, Six Sigma Methods, Quality Function Deployment (QFD), Failure Mode and Effects Analysis (FMEA) and new quality related programs used in process/product development validation. Control plans and teamwork will be used to demonstrate the dynamics of synergism in groups.

SOCIOLOGY

Dean: Cheryl D. Hawkins, MS

Assistant Dean of Sciences

Instructors: Associate Professor Josselyn Moore, MA
Assistant Professor Karen Schaumann, MA
Adjunct Faculty

SOC 101 Introduction to Social Work (3-0) 3 Cr. Hrs.

Prerequisite: None.

Introduction to Social Work is an introductory course to the social work field designed to provide students with an overview of the profession. Content will include an analysis of the profession, its scope, methods, values and the organization of services. Attention will be paid to presenting information on policy and practice in a variety of social work settings with particular target populations. The course orients students to the roles of the generalist social work practitioner within a theoretical framework that consists of systems theory, the ecological perspective and a problem solving model. Attention will be paid to the kinds of needs and problems that bring clients to the attention of social workers. The term "client" is defined as an individual, family, group, neighborhood, organization or large social system. The course stresses self-assessment in determining suitability for a career in social work.

SOC 201 Principles of Sociology (3-0) 3 Cr. Hrs.

Prerequisite: None.

This course provides a survey of the major theoretical perspectives, concepts and methods of sociology. Topics covered include social organization, culture, socialization, stratification systems, social institutions and social change.

SOC 205 Social Problems (3-0) 3 Cr. Hrs.

Prerequisite: SOC 201 recommended.

Consideration of current social problems, such as family stability, racism, sexism, poverty, crime, urbanization and ecological problems using sociological theory and recent empirical studies will be introduced. Analysis of structural factors underlying these problems and possible solutions will be explored.

SOC 209 Marriage and Family (3-0) 3 Cr. Hrs.

Prerequisite: None.

This course offers a study of the impact that social changes have had on gender roles, relationships, marriage and family life. Topics covered in the course include diversity in family patterns, gender roles, intimate behavior, mate selection, problems of marital adjustment, family stability and crisis, divorce and parenting.

SOC 210 Cultural Diversity (3-0) 3 Cr. Hrs.

Prerequisite: None. SOC 201 or ANTH 112 recommended.

This course is an analysis of racial and ethnic diversity in the U.S. in relation to evolving social, economic and cultural factors. Various American minority cultures are studied with an emphasis on education, politics, religion and the resulting cultural effects. Sociological and psychological concepts and theories will be explored. The impact of the current wave of immigrants to the U.S. will be discussed and the incidents of hate crimes will be explored.

SOC 220 Urban Sociology (3-0) 3 Cr. Hrs.

Prerequisite: SOC 201 or ANTH 112 recommended.

This course provides a survey of the origin and development of cities and the processes of urbanization which includes a discussion of the ecology and social organization of urban life. The special problems and realities of urban society will be covered as well as perspectives for the future.

SOC 290 The Individual and Community— An Honors Capstone Course (3-0) 3 Cr. Hrs.

Prerequisite: HUM 190.

A required conclusion to the Schoolcraft Scholars Honors Program, this capstone course examines individual, social structural and social institutional relationships through multiple disciplines. Students will identify and analyze social and cultural trends and issues. During the course, students will complete and present results of service-learning projects.

SOUND RECORDING TECHNOLOGY

Dean: William J. Dunbar, Jr., MS

Instructors: Instructor Todd Sager, MM
Adjunct Faculty

SRT 110 Keyboard Skills for Recording Engineers (1-0) 1 Cr. Hr.

Prerequisite: MUSIC 121.

Students will apply knowledge gained in MUSIC 121 to use with electronic keyboard instruments used in the modern recording studio. Emphasis is on the operation of modern electronic keyboard instruments, MIDI and developing the fundamental musical skills used in contemporary music production. These skills will be applied to individual projects in the laboratory.

SRT 121 Basic Sound and Recording Techniques 1 (3-0) 3 Cr. Hrs.

Prerequisite: None.

Fundamentals of the recording arts, including basic audio and acoustical theory, recording consoles, tape recorders, microphone design and technique, speakers and signal processing will be introduced in this course.

SRT 122 Basic Sound and Recording Techniques 2 (3-0) 3 Cr. Hrs.

Prerequisite: SRT 121.

Multi-track studio production techniques are developed through class discussion, demonstration and project assignments. Theory of digital audio technology and its integration into music production is emphasized.

SRT 150 Ear Training for Recording Engineers (2-0) 2 Cr. Hrs.

Prerequisite: SRT 121 or consent of department.

Listening skills particular to the recording engineer are developed through demonstration and ear training exercises. These skills include hearing and discriminating frequencies, levels, processing, phase, distortion and equalization. Application of these skills to multi-track mixing is emphasized and developed through hands-on assignments using a variety of professional mixing systems.

SRT 221 Advanced Audio Production 1 (3-0) 3 Cr. Hrs.
Prerequisite: SRT 122 and SRT 150.
 This course is a comprehensive examination of the principles and applications of digital audio in today's recording and interactive media industries. Computer-based recording and editing is emphasized along with musical instrument digital interface (MIDI) technology.

SRT 222 Advanced Audio Production 2 (3-0) 3 Cr. Hrs.
Prerequisite: None.
 This course is a continuation of SRT 221 and recording in the digital domain. Areas of focus will include advanced mixing and editing techniques, synchronization, mastering, post-production and surround sound.

SPANISH

Dean: Cheryl D. Hawkins, MS
 Instructors: Associate Professor Andrea Nofz, MA
 Adjunct Faculty

SPAN 101 Elementary Spanish 1 (4-0) 4 Cr. Hrs.
Prerequisite: None.
 This course is intended for students who have no previous education in Spanish. The course will cover basic grammar patterns and build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of Hispanic culture will be an integral part of the course.

SPAN 102 Elementary Spanish 2 (4-0) 4 Cr. Hrs.
Prerequisite: SPAN 101 with grade of 2.0 or better or one year of high school Spanish or consent of instructor.
 This course is a continuation of SPAN 101 and continues to review the basic Spanish grammar patterns and build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of Hispanic culture will be an integral part of the course.

SPAN 201 Intermediate Spanish 1 (4-0) 4 Cr. Hrs.
Prerequisite: SPAN 102 with grade of 2.0 or better or two years of high school Spanish or consent of instructor.
 This course is a continuation of SPAN 102 and continues to cover grammar patterns and build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of Hispanic culture will be an integral part of the course.

SPAN 202 Intermediate Spanish 2 (4-0) 4 Cr. Hrs.
Prerequisite: SPAN 201 with grade of 2.0 or better or three years of high school Spanish or consent of instructor.
 This course is a continuation of SPAN 201 and continues to cover grammar patterns and build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of Hispanic culture will be an integral part of the course.

THEATRE

Dean: Cheryl D. Hawkins, MS
 Instructor: Professor James R. Hartman, EdM

THEA 101 Introduction to Theatre (3-0) 3 Cr. Hrs.
Prerequisite: None.
 A survey course which examines all the elements of theatre: actor, director, playwright, scenery, costumes, makeup, lighting, sound, audience, theatre publicity, theatre management and critic. The course offers the opportunity for developing an appreciation of theatre and how it relates to the world.

THEA 120 Theatre Activities 1 (1-0) 1 Cr. Hr.
Prerequisite: None.
 A brief introduction to all the elements of theatre: actor, director, playwright, scenery, costumes, makeup, lighting, sound, audience, theatre publicity, theatre management and critic. Students are required to work on a current production.

THEA 121 Theatre Activities 2 (1-0) 1 Cr. Hr.
Prerequisite: THEA 120.
 This course is a continuation of THEA 120 and continues to explore all the elements of theatre: actor, director, playwright, scenery, costumes, makeup, lighting, sound, audience, theatre publicity, theatre management and critic. Students are required to work on a current production.

THEA 204 Stage Makeup (2-0) 2 Cr. Hrs.
Prerequisite: None.
 An introductory course in stage makeup application. The course covers basic makeup, character makeup, old-age makeup and special effects. Discussion on types of makeup and practical student application projects.

THEA 207 Stagecraft and Lighting (3-0) 3 Cr. Hrs.
Prerequisite: None.
 This course investigates stage designs and lighting theories with a practical application by work on the college production. The course also covers the basic knowledge of set construction, lighting and its equipment, costume construction, makeup techniques and costume maintenance. Students are required to work on a current production.

THEA 208 Acting 1 (3-0) 3 Cr. Hrs.
Prerequisite: None.
 A beginning course to prepare the actor for acting. Training in voice and body development that not only is applicable to the stage but to daily life is covered. Exercise work in concentration, relaxation, awareness, sensitivity and body alignment is introduced and applied to scene work from modern drama.

THEA 209 Acting 2 (3-0) 3 Cr. Hrs.
Prerequisite: THEA 208 or consent of instructor.
 An advanced course in the preparation of an actor for acting. Training in voice and body development with an emphasis on studying and applying the Stanislavski Method and the Alexander Technique of body alignment will be taught. The course includes presentation of scenes from classical and modern plays.

THEA 220 Theatre Activities 3 (1-0) 1 Cr. Hr.*Prerequisite:* THEA 121.

This course is a continuation of THEA 121 and continues to explore all the elements of theatre: actor, director, playwright, scenery, costumes, makeup, lighting, sound, audience, theatre publicity, theatre management and critic. Students are required to work on current production.

THEA 221 Theatre Activities 4 (1-0) 1 Cr. Hr.*Prerequisite:* THEA 220.

This course is a continuation of THEA 220 and will continue to explore all the elements of theatre: actor, director, playwright, scenery, costumes, makeup, lighting, sound, audience, theatre publicity, theatre management and critic. Students are required to work on current production.

THEA 231 History of Theatre 1 (3-0) 3 Cr. Hrs.*Prerequisite:* None.

The development of dramatic art and practice from ancient times to the end of the 18th century stressing the evolution of the physical theatre and dramatic forms in relation to contemporaneous production facilities and innovations will be explored.

THEA 232 History of Theatre 2 (3-0) 3 Cr. Hrs.*Prerequisite:* None.

The development of dramatic art and practice from the beginning of the 19th century to the present stressing the evolution of the physical theatre and dramatic forms in relation to contemporaneous production facilities and innovations will be explored.

THEA 241 Oral Interpretation of Literature (3-0) 3 Cr. Hrs.*Prerequisite:* THEA 208 and COMA 103.

This course is designed to give students an understanding of Oral Interpretation of Literature through a two-fold technique: one, by practical experience in interpretive readings in various types of literature, and two, by the study of techniques used in the textbook. The class emphasizes the performance of literature through the use of the voice and body.

WELDING TECHNOLOGY

Dean: William J. Dunbar, Jr., MS

Instructors: Associate Professor Rodney Johnson, CWE, CAWI, CHMM
Adjunct Faculty**WELD 110 Introduction to Welding Basics for Fabrication (2-2) 3 Cr. Hrs.***Prerequisite:* None.

This class serves as an introduction for individuals that have no welding or fabrication experience in various welding and fabrication processes. Covered in the course will be the set up and safe operation of gas welding and brazing, shielded metallic arc welding, gas metallic arc welding, gas tungsten arc welding, resistance welding, gas cutting and plasma cutting equipment as well as the safe set up and operation of equipment found in a welding fabrication facility. This class produces a good foundation for WELD 113 and is recommended for students interested in art and related metallic sculpture.

WELD 111 Project Mathematics (2-2) 4 Cr. Hrs.*Prerequisite:* None.

A mathematics course covering basic skills needed to increase the quantitative literacy of skilled welders in engineering and industrial practice. Welding related problems are designed to increase understanding of basic mathematics as they relate to linear, angular, four sided, triangular and circular measurements. Topics covered in the course also include volumetric measurement of conventional shapes as well as irregular shaped objects, weight calculation and calculations used in bending metals.

WELD 113 Shielded Metallic Arc Welding (S.M.A.W.) (2-2) 3 Cr. Hrs.*Prerequisite:* None.

Theory and fundamentals of oxy/fuel cutting, welding, braze welding, shielded metal arc welding, joining and fabricating will be explored. Emphasis will be on basic welding skills, filler metals and techniques for using different welding rods. Welding machine set up and oxy/fuel welding equipment set up will be practiced extensively to insure good sound safety habits. Safety in all welding applications will be explained and students will be required to pass safety evaluations. This course will establish good sound work habits and provide a foundation for more advanced courses.

WELD 115 Gas Metallic Arc Welding (G.M.A.W./M.I.G.) (2-2) 3 Cr. Hrs.*Prerequisite:* None.

Theory and fundamentals of gas metallic arc welding commonly referred to as M.I.G. welding will be explored. This method of fusion of metals is widely used and is the fastest growing segment of the metal working industry. Emphasis will be on basic skill development and the establishment of sound work habits. The course is designed to provide entry level employability and a solid foundation for more advanced courses.

WELD 118 Adhesive Joining Technology (1-3) 4 Cr. Hrs.*Prerequisite:* WELD 113, MET 114 or consent of department.

Adhesive joining technology concentrates on the design and assembly of metallic and nonmetallic materials including ceramics. Two major categories, structural and non-structural adhesive bonding, as well as adhesives selection, joint design, methods of surface preparation and joint evaluation will be compared to general mechanical joining techniques.

WELD 119 Gas Tungsten Inert Arc Welding (G.T.A.W./T.I.G.) (2-2) 3 Cr. Hrs.*Prerequisite:* None.

Theory and fundamentals of Gas Tungsten Arc Welding (G.T.A.W.) will be explored. This method of metal fusion is capable of producing very high quality welds in virtually all metals and one of the few methods of welding some of the more difficult to weld metals. The course is designed to provide entry level employability and solid foundation for more advanced courses.

WELD 120 Advanced Processes—Stick Electrode and M.I.G. Welding (2-2) 3 Cr. Hrs.*Prerequisite:* WELD 115 or consent of department.

The student will gain additional knowledge and experience in both shielded metallic and gas metallic arc welding. Welding will be performed in all positions; flat, horizontal, vertical and overhead. The class will introduce the student to pipe cutting and pipe welding on heavy sections. Material will be formed and fabricated using power and hand operated tools and equipment. Students will produce several required projects that will simulate weld joints found in today's modern manufacturing and construction industry.

WELD 130 Advanced Processes—Gas Tungsten (2-2) 3 Cr. Hrs.*Prerequisite:* WELD 119 or consent of department.

Advanced Processes - Gas Tungsten Arc Welding moves students to a higher level of welding that the student, as an employee, may find in a job. The course will cover welding of carbon steel, stainless steel and aluminum. This course will challenge the student to perform required elements that produce welds that would meet national standards. Proper fit up of weld joints, weld bead size, weld strength and appearance will be stressed. Lay out of complex weld joints will be another requirement evaluated in an ongoing process as welded exercises are preformed.

WELD 205 Welder's Print Reading (1-1) 2 Cr. Hrs.*Prerequisite:* WELD 120.

Welder's print reading provides detailed information to help welding students develop skills necessary to interpret working sketches and prints common to the welding/metalworking field. In addition, the welding student will gain knowledge in how to interpret conventional drafting symbology and specialized welding symbols and will have the opportunity to perform welds on test plates that are indicated by the welding symbols.

WELD 206 Welding Inspection and Qualification (1-1) 2 Cr. Hrs.*Prerequisite:* WELD 205.

Quality welders are in demand today. It is important that these welders possess a working knowledge of weld test equipment and qualification as well as be able to test and evaluate welds. Proper use of weld test gages and equipment, dye penetrant, fluorescent dye penetrant, magnetic particle and destructive testing equipment and techniques will be covered.

WELD 223 Fabrication (2-4) 4 Cr. Hrs.*Prerequisite:* WELD 120 and WELD 130 or consent of department.

Fabrication of student/instructor selected projects will be the format for this course. Emphasis will be on the development of fabrication techniques, including design, material selection, layout, material preparation and use of fixtures. Welding skills developed in WELD 120 and WELD 130 will be applied. There will be an opportunity for students to further investigate other industrial welding processes.

WELD 262 Welding Metallurgy (1-2) 3 Cr. Hrs.*Prerequisite:* MET 102 and MET 152 or concurrent.

Welding metallurgy includes the influence of alloy composition, filler materials, fluxes and thermal interactions on the structure and properties of metals. Topics covered in the course will include the chemical, mechanical, and physical properties of metals, mechanical behavior, microstructure and post-weld heat treating.

PREPARATION FOR WELDING CERTIFICATION EXAMINATION(S)

The need for "Certified Welders" continues to grow. Certification comes as a result of demonstration of competence by passing performance examinations. Although Schoolcraft College does not qualify or certify welders, the College can duplicate these tests, provide instruction in the proper welding procedure and provide the appropriate testing equipment to examine and evaluate the results. This course addresses stick electrode welding techniques and competencies.

WELD 210 Preparation for Welder Certification in Shielded Metallic Arc Welding (S.M.A.W.) (2-2) 3 Cr. Hrs.*Prerequisite:* WELD 113 or extensive welding experience.**WELD 211 Preparation for Welder Certification in Gas Metallic Arc Welding (G.M.A.W./M.I.G.) (2-2) 3 Cr. Hrs.***Prerequisite:* WELD 115 or extensive welding experience.**WELD 212 Preparation for Welder Certification in G.T.A.W./T.I.G. (2-2) 3 Cr. Hrs.***Prerequisite:* WELD 119 or consent of department.**WELD 214 Preparation for Welder Certification in Pipe Welding (2-2) 3 Cr. Hrs.***Prerequisite:* WELD 130 or consent of department.

DISCOVER

Becoming a student



SUPPORT



Schoolcraft
College

Admissions

Admissions and Enrollment Center
McDowell Center Room 240
734-462-4426

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

General Admission Criteria

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

Exceptions to the criteria above can be made by the Dean of Student Services. Admission to the college does not guarantee admission to all courses and programs of study. Special admission requirements must be met before a student is accepted into any limited enrollment or restricted enrollment program.

Admissions Process

Students seeking admission are requested to submit the following to the Admissions and Enrollment Center:

- Completed Schoolcraft College Application for Admission, available in print or online at www.schoolcraft.edu.
- High school transcript(s).
- Official college transcript(s), if applicable. Official college transcripts must be sent directly from the transfer institution's Registrar's Office. Hand carried or "issued to student" copies will not be accepted or considered official.

Transcripts are valuable assessment and course placement tools. Credits for courses taken at other colleges and prerequisite waivers can be evaluated for transfer if students provide high school and official college transcripts.

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

Placement Testing

Schoolcraft College's goal is to place students in courses that will maximize their academic success. Therefore the college may require placement testing. The purpose of testing is to assess English, math, and reading to determine appropriate course levels. Some students who plan to enroll in credit classes are required to complete placement testing, while others are not. As an alternative to completing placement testing, applicants may submit ACT/SAT scores that are not more than three years old to the Admissions and Enrollment Center.

Students who are required to satisfy the placement testing requirement are: new students with no previous college experience, or students with previous college experience who wish to enroll in a limited or restricted enrollment program. Students taking the placement test should plan to bring photo identification and their student number. There is no charge for your first test; however, there will be a fee for subsequent attempts. Students who are unsure of their proficiency level may choose to complete placement testing and seek assistance from the Counseling Department related to course selection and academic planning.

Students with guest student status are exempt from placement testing.

Foundation Courses

Students who score below the collegiate level on English, math, or reading assessment tests, or who require instruction in basic skills to meet prerequisites for their selected curriculum, are required to complete all basic courses within their first year of study. Foundation courses are also an ideal option for students who desire a comprehensive review and/or strengthening of their skills. Descriptions of the following foundation courses are listed in the catalog and on the Web site:

BIOLOGY 050

CHEMISTRY 051

COLLEGIATE SKILLS 045

COLLEGIATE SKILLS 049

COLLEGIATE SKILLS 050

COLLEGIATE SKILLS 053

ENGLISH 050

ENGLISH 055

ENGLISH AS A SECOND LANGUAGE 051

ENGLISH AS A SECOND LANGUAGE 052

MATH 045

MATH 047

MATH 053

MATH 055

PHYSICS 051



High School Enrollment Options

Schoolcraft College offers high school students the opportunity to attend college while still in high school. The two options are High School Dual Enrollment and High School Special Enrollment.

High School Dual Enrollment

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

Special High School Enrollment

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

Readmission of Former Students

If it has been longer than two years since the student last attended the college, he or she is asked to complete a free Application for Admission form before registration. Former students in good academic standing should make an appointment to see an academic counselor or academic advisor. During this appointment, students can revise their educational plans and discuss current course offerings. Academically dismissed students must follow the guidelines for appeal outlined in the dismissal notification they receive.



Guest Students at Schoolcraft College

Students attending another college may enroll at Schoolcraft as guest students. Guest students may register for a course(s) without taking placement tests or meeting with a counselor or academic advisor, unless they so choose. Students attending another Michigan college or university must submit a completed Michigan Uniform Guest Application. Out-of-state guest students must submit an Application for Admission and indicate their desire to be a guest student. The application is valid only in the semester/session for which it is authorized. Applications for spring session will also be considered valid for summer session. Guest students pay all tuition and fees, as applicable, and are not eligible for financial aid funds. If guest students submit a regular application for admission and do not indicate their guest-student status, they may be required to follow the same registration processes as new students. Guest students should consult with their home institution to ensure transferability of courses. Guest students should also request an official transcript be sent to their home institution at the conclusion of their Schoolcraft courses.

Guest Students from Schoolcraft College

Students in good standing (minimum 2.0 grade-point average) currently attending Schoolcraft College may request a Michigan Uniform Guest Application from the Admissions and Enrollment Center to attend another college. The Schoolcraft College Registrar must approve courses taken at another college. Students should consult the online course equivalency guide to ensure transferability of courses.



International Students Including Canadians and Non-Native English Speakers

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

1. A completed Application for Admission through www.schoolcraft.edu.
2. Official school transcripts.

To be issued the necessary visa documents, an international student, F-1 or M-1, including Canadians who commute to Schoolcraft must:

1. Submit a completed international student packet.
2. Demonstrate a sufficient level of financial support, with documentation verifying the availability of funds.
3. Provide a copy of a valid passport identification page.
4. All applicants whose native language is not English must demonstrate adequate knowledge of written English proficiency. A minimum Test of English as a Foreign Language (TOEFL) score of 500 on the paper test, 173 on the computer-based test; 70 on the Michigan English Language Assessment Battery (MELAB), or 50 on the Michigan Test of English Language Proficiency (MTELP) is currently considered proof of English proficiency. Schoolcraft College offers the MTELP test via the Testing Center. **IELTS testing is currently being considered for English proficiency demonstration. Please inquire in the Counseling Center to find out applicability and institutional cut scores.*

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

F-1 and M-1 visa students must maintain full-time enrollment to fulfill United States Citizenship and Immigration Services (USCIS) requirements. All new students must follow college assessment testing and counseling requirements and attend an International Student Orientation. In addition, proof of health coverage is required for the duration of study. Students may purchase a policy through Schoolcraft's group rate or a comparable, independent resource inclusive of medical evacuation and repatriation. Students are admitted for fall and winter semesters and spring and summer sessions. Non-credit classes are offered by the English Language Institute through Continuing Education and Professional Development. These courses do not apply to satisfying full-time enrollment requirements or visa compliance.

Obtaining and maintaining your visa status is the student's responsibility. Schoolcraft College is authorized to issue eligibility visa documents (an I-20) for foreign nationals to obtain F-1 or M-1 student status either by changing their current visa status if they are in the U.S. or by obtaining an F-1 or M-1 visa through a U.S. consulate outside of the U.S. If you are in the U.S. with another visa status, you must be sure that your current status allows full-time study. For example, a visitor status (B-2, B-1, F-2, WT or WB) does not allow full-time study. Also, someone with visitor status (or a dependent of an F-1 or M-1) who applies to change to a student status while in the U.S. is not allowed to begin full-time study until a change of status to the F-1 or M-1 is approved by

the USCIS Service Center, usually a two- to three-month process. Please consult with our International Coordinator in the Counseling Center at the earliest opportunity to determine what steps you must take to maintain or obtain a valid visa status during your studies at Schoolcraft.

Non-Native English Speaking Students

All students whose native language is not English will be required to take assessment testing. It is recommended that students with previous educational credentials have them evaluated through an independent source. Currently, we accept evaluations from ECE (www.ece.org) or WES (www.wes.org) evaluation services. To find out if this option is right for you, please consult with the Counseling Center.

Campus Tours

Student Recruitment Office
734-462-4683
studentrecruitment@schoolcraft.edu

A campus tour provides an excellent opportunity to learn about our academic programs, see our facilities, and discuss campus life and other aspects of being a Schoolcraft student. Campus tours are offered at both the Livonia campus and the Radcliff Center in Garden City.

We also offer culinary tours that highlight how to apply to the Culinary Arts and Culinary Baking and Pastry Arts programs. Included is a tour of our state-of-the-art kitchens.

Sign up online at www.schoolcraft.edu/tour to schedule either a campus tour or culinary tour at the Livonia campus. Contact the Radcliff Center directly at 734-462-4786 to schedule a visit.

A virtual tour is also available at www.schoolcraft.edu.



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. Financial aid programs can provide students with options that may assist them with educational expenses and in achieving their educational goals. There are two basic categories of financial assistance: need-based and non-need-based aid. Need-based aid uses a formula to determine a family's financial strength and eligibility for a program. Non-need-based aid does not use the financial strength of the family, but may take into consideration other factors such as grade-point average. All programs, criteria and funding are subject to change without notice. Additional information on financial aid may be found on the following Web sites:

schoolcraft.edu/aid	Financial Aid page at Schoolcraft College
schoolcraft.financialaidtv.com	Short video answers to common financial aid questions
ed.gov	U.S. Department of Education (Student Guide, FAFSA)
brokescholar.com	Scholarship Search
college.gov	Transitioning to college from high school
fastweb.com	Scholarship Search
schoolsoup.com	Scholarship Search
wiredscholar.com	Scholarship Search
students.gov	Gateway to the Federal Government
studentloans.gov	Direct Loan Web site (Entrance and Exit Counseling, Master Promissory Note, etc.)
nasfaa.org	National Association of Student Financial Aid Administrators
finaid.org	Financial Aid Information Page (includes scholarship searches)
mappingyourfuture.org	A guide to careers, schools, and financial aid
michigan.gov/mistudentaid	Michigan Department of Treasury Student Financial Aid
collegeispossible.org	A resource guide for parents and students

Financial Aid Programs

The following section provides brief descriptions of the financial aid programs available at Schoolcraft College. Enrollment requirements vary by program, and may range from less than half-time to full-time enrollment each semester. Awards are based on students' ability to meet eligibility criteria, make satisfactory academic progress toward their degree and the availability of funding.

Scholarships

Scholarships do not have to be repaid and are primarily based on academic achievement. Students should consult the scholarship

postings in the Office of Financial Aid (OFA), or the Radcliff Center's main office. Scholarship postings contain current scholarship offerings, criteria and deadline dates for each scholarship. In addition to those listed in the book, the following scholarship opportunities are available.

Michigan Competitive Scholarships

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

Schoolcraft College Athletic Scholarships

Contact the Athletic Department at 734-462-4400, ext. 5324 for information.

Schoolcraft College Institutional Scholarships

The OFA awards a limited number of scholarships each academic year to students who demonstrate financial need. Awards are made on a case-by-case basis and notification will be sent to eligible students. Students should contact the OFA for assistance.

Schoolcraft College Trustee Scholarship

This scholarship program is available to entering fall semester first-year students who graduated the previous spring from select area high schools. By the deadline date, students must submit a Trustee Scholarship Application, a seventh-semester high school transcript reflecting a minimum cumulative 3.0 grade-point average and their ACT scores with a minimum composite score of 18. Students must register for at least 12 credit hours each semester, and the scholarship may be renewable for the second year of study, if credit hour and grade-point average requirements are met by the end of the spring term.

Schoolcraft College Foundation Scholarships

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

Schoolcraft College Faculty Academic Scholarships

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

Transition Center Scholarships

These scholarships are available to those who may or may not qualify for federal or state financial aid. The Transition Center works vigorously to ensure scholarship opportunities are available for all students. Specific scholarships established prior to Proposal 2 (Michigan Civil Rights Initiative) have a special emphasis on women. Students must complete the FAFSA to be considered for Transitions Center scholarships. Information is available at the Transition Center.

Grant Programs

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

Federal Pell Grant (FPELL)

This federal grant program is for students who have not earned a bachelor's degree, are enrolled in an undergraduate program, and demonstrate exceptional financial need. Each academic year the federal government determines award eligibility and amount. The current range is \$555–\$5,550. Enrollment requirements range from less than half-time to full-time, depending on individual eligibility. Students whose first Federal Pell Grant was awarded on or after July 1, 2008 may receive this grant for a maximum of 18 semesters or its equivalent.

Academic Competitiveness Grant (ACG)

This federal grant program has been implemented for first- and second-year students. This grant is for students who have completed a rigorous high school program of study after January 1, 2006, if a first-year student, and after January 1, 2005, if a second-year student (GED students are not eligible). First-year students are eligible for \$750 (\$325 per semester); second-year students are eligible for \$1300 (\$650 per semester). A student may receive only one first-year grant and one second-year grant. In order for the OFA to determine your eligibility for the ACG, you must ensure that Schoolcraft College has received your final and complete high school transcript.

Federal Supplemental Educational Opportunity Grant (FSEOG)

This federal grant program is for students who have not earned a bachelor's degree, are enrolled in an undergraduate program, and 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.

Native American Tuition Waiver

Michigan residents who are native North Americans and are certified as having one-quarter blood quantum by their tribal association may be eligible for tuition assistance funds. Information and requirements are available through the OFA. Students must contact the State of Michigan regarding eligibility.

Tuition Incentive Program (TIP)

This state grant program provides funding for tuition and mandatory fees to students who graduate high school or earn their GED by the age of 20. The Michigan Department of Treasury, through Family Independence Agency Medicaid records, certifies eligibility for each recipient. Students must register for the program prior to graduating from high school or earning their GED. TIP pays for a maximum of 24 credits each academic year. Allowable costs are limited to resident tuition, registration fees and instructional equipment fees. Students must enroll in at least six credit hours per semester.

Transition Center Special Populations Program

The Special Populations program, administered through the Transition Center, has funds available for single parents, displaced homemakers and persons in programs considered nontraditional for their genders. Students must complete the FAFSA to be considered for Transitions Center scholarships. Assistance is available for tuition, textbooks and child care. Contact the Transition Center at 734-462-4443 or visit the office in the McDowell Center.

College Work Study Employment

Student employment requires the student to work to earn the award. Work-study students are placed in jobs on campus, and their wages are paid by federal work-study funds. Student employment under these programs is limited to 20 hours a week. To be eligible, students must demonstrate financial need, qualify for the Pell Grant and register for at least six credit hours fall and winter, and three credit hours for spring and summer each semester. Students must submit a written request to the OFA to be considered for work study funding. Request forms are available in the OFA, and on WebAdvisor. Students whose first Federal Pell Grant was awarded on or after July 1, 2008 may receive this award for a maximum of 18 semesters or its equivalent.

Student Loans

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

The school determines student eligibility for a federal student loan. If reasons are documented and explained to students in writing, the OFA may decline to certify an otherwise eligible loan application. In addition, a loan may be certified for an amount less than that for which the student would otherwise be eligible.

To be eligible for a student loan, students must enroll in at least six credit hours each semester for which a loan is requested. In addition, students need to make satisfactory academic progress at Schoolcraft College. Loans will not be approved for students on financial aid probation. Interest rates, repayment terms and borrowing limits are set by the federal Department of Education. Repayment on these low interest educational loans begins after a student stops attending school on at least a half-time basis. Entrance counseling is required before processing a student loan request. A Master Promissory Note (MPN) must be signed before a loan request will be processed. Entrance Counseling and the MPN can be found online at studentloans.gov. In addition, all students with loans must participate in exit counseling upon leaving Schoolcraft or when their enrollment falls below half-time status.

Priority Processing Dates for Loans

Semester	File complete by	Loan request submitted by
SUMMER 2011	May 1, 2011	May 15, 2011
FALL 2011	July 1, 2011	July 15, 2011
WINTER 2012	November 1, 2011	November 15, 2011
SPRING 2012	March 1, 2012	March 15, 2012

Federal Direct Stafford Loan

These low interest loans from the U.S. Department of Education are the Department of Education's major form of self-help aid and are available through the William D. Ford Federal Direct Loan Program. There are two types of Federal Direct Stafford Loans: Subsidized and Unsubsidized. Because the funding for these loans comes directly from the Department of Education, students will not need to find a lender in order to borrow through this program. Interest rates on these loans are fixed for those loans first disbursed on or after July 1, 2006.

To receive a Subsidized Federal Direct Stafford Loan, the student must demonstrate financial need. Interest on subsidized loans is paid by the federal government during periods of enrollment, deferment and during the six-month grace period preceding repayment.

Unsubsidized Federal Direct Stafford Loans have the same terms as a Subsidized Federal Direct Stafford loan, except the loan is not based on demonstrated need, and borrowers are responsible for all interest, including that which accrues during periods of enrollment and the six month grace period preceding repayment.

More information on the application process is available by contacting the OFA or at www.schoolcraft.edu/aid.

Federal Direct PLUS Loan

Federal Direct PLUS Loans are for parents who want to borrow money to help pay for their dependent children's education. PLUS loans are not based on demonstrated financial need; however, the student must first exhaust their federal student loan eligibility before applying for a PLUS loan. The interest rate is fixed at 8.5 percent. Parents who have no adverse credit history may apply for PLUS Loans.

Veterans

Veterans Services Office
Transition Center, McDowell Center Room 225
734-462-4400, ext. 5346

Veterans and their dependents are encouraged to contact the Schoolcraft College Veterans Liaison in the Transition Center for information regarding Veterans Administration (VA) educational benefits. The Veterans Liaison helps veterans apply for VA educational benefits and operates as a contact person between the veteran and the Veterans Administration. Veterans attending college under the provisions of the G.I. Bill (Chapters 30, 32, 35, Title 38, Chapter 1607 and Chapter 1606, Title 10) are entitled to privileges and are responsible for complying with all Schoolcraft College regulations.

All financial obligations, including payment of tuition and fees, must be paid on the scheduled dates. A Veterans Request for Certification must be submitted to the Veterans Liaison each semester.

Chapter 31 (Vocational Rehabilitation) approved veterans are not required to pay tuition and fees at the time of registration. Veterans under this program must contact the Schoolcraft College Veterans Liaison prior to registering for classes and submit a Request for Certification each semester.

Chapter 33 (Post 9/11) approved veterans are required to pay only their percentage, as determined by the Department of Defense, at the time of registration. Veterans under this program are required to meet with the Schoolcraft College Veterans Liaison prior to registering for classes each semester and submit a Request for Certification prior to the start of each semester.

The VA allows a veteran to request advance payment of benefits to help defray the cost of registration. Eligible veterans must contact the VA Liaison to apply at least six weeks prior to the start of the semester. 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 veterans receiving educational benefits must have their class schedules approved by a counselor, academic advisor or the Veterans Liaison.
- A Request for Certification must be filed with the Schoolcraft College Veterans Liaison each semester.
- All changes of address, curriculum and withdrawal from courses must be reported immediately to the Veterans Liaison.

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

Financial Aid Application Process

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

The Free Application for Federal Student Aid (FAFSA) is available on January 1 for the next academic year. For the 2011–12 academic year, apply on or after January 1, 2011 for summer and fall 2011, and winter and spring 2012.

Applying for Financial Aid

1. Complete and submit the Schoolcraft College Application for Admission. The application is available online or from the Admissions and Enrollment Center. While you do not have to be admitted to Schoolcraft College to apply for financial assistance, aid is not awarded until you have been admitted to the college and have a student number.
2. Complete and submit the FAFSA.
 - Online at www.fafsa.ed.gov. If you are unable to access the Internet, you may contact the Department of Education at 800-433-3243 to request a paper application be mailed to your home.
 - Indicate Schoolcraft College's code (002315) on your FAFSA. This permits the OFA to access your financial aid results electronically. If you are thinking about transferring mid-year, indicate your transfer institution first, then Schoolcraft College.
3. Approximately one to four weeks after you submit your FAFSA, you will receive a Student Aid Report (SAR). The SAR recaps the information you submitted on your FAFSA.
 - Read the Information Summary, review your SAR for accuracy and submit any changes to the Department of Education. If Schoolcraft College is not listed, you may add our school code (002315) online or submit the SAR to the Department of Education with our school code added to it.
 - If you provide an e-mail address, the Federal Processor will communicate with you via e-mail. Otherwise, correspondence will be by mail.

4. Schoolcraft College will request additional documents, if necessary.
 - If selected for verification, you will be required to submit income documentation and a verification worksheet. **Your SAR will alert you if you have been selected for verification.**
 - Other information may be requested as determined by the OFA.
 - Respond immediately to all requested information.
5. Eligibility for financial aid assistance cannot be determined until all requested documentation is on file. Students are notified via WebAdvisor, in writing, or by e-mail of their eligibility status. Files are reviewed based on the date of completion. Files are complete when the student has submitted all requested information. See the following priority dates.

Priority Processing Dates

Semester	Submit FAFSA by	Financial aid file complete by
SUMMER 2011	March 1, 2011	May 1, 2011
FALL 2011	May 1, 2011	July 1, 2011
WINTER 2012	September 1, 2011	November 1, 2011
SPRING 2012	January 1, 2012	March 1, 2011

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

6. Award notification will be sent out electronically to all students who provide the college or the Department of Education with an e-mail address. Additionally, all financial aid students may view their award letter through WebAdvisor.
7. Inform the OFA of changes in financial or family circumstances, such as loss of employment, death or disability of a family wage earner, divorce or separation. You may qualify for a re-evaluation of your financial aid information.
8. Keep your demographic information current with the college and the Federal Processor.

Financial Aid General Information

Rights and Responsibilities

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

Eligibility for Financial Aid

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

Financial Need

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

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

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

Selection of Recipients

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

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

Cost of Attendance for Financial Aid

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

Typical Cost of Attendance for a Full-Time Student

	Resident	Non-Resident
Tuition and fees	\$2,440	\$3,402
Books and supplies	\$1,268	\$1,268
Transportation	\$1,787	\$1,787
Miscellaneous	\$1,301	\$1,301
Room and board	\$6,108	\$6,108
Total	\$12,904	\$13,866

Figures are based on 2010–11 academic year costs and subject to adjustment due to changes in law and Schoolcraft College Board of Trustee policy. Actual costs will vary from student to student.

Transferring to Another College

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

Transfer Scholarships

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

Attendance at Multiple Institutions

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

Study Abroad

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

Class Attendance

Students enrolled in credit class(es) need to attend their class(es) to establish and maintain financial aid eligibility. Instructors record the attendance of all students each week. To establish attendance in an Open Entry/Open Exit (OE/OE) class, students must complete the orientation and submit at least one academic assignment or take at least one academic test. To establish attendance in online courses, students must log-in weekly and submit at least one academic assignment or take at least one academic test. To establish attendance in a Hybrid class, students must attend on-campus class sessions and submit at least one academic assignment or take at least one academic test. The Office of Financial Aid is notified of the financial aid students who never attend or stop attending classes. Not attending a class(es) may affect the amount of aid a student is receiving now and in the future. **Nonattendance usually results in the student owing money to the college.**

Withdrawals and Refunds

The college's tuition and fee refund policy is that tuition and fees are 100 percent refundable through the end of the schedule adjustment period for each semester. See the Important Dates page on our Web site each semester for specific refund dates. Students who drop classes and receive a 100 percent refund may have their financial aid adjusted and may owe money to the college.

Students withdraw from courses through WebAdvisor. See the Important Dates page on our Web site each semester for specific withdrawal dates. Please contact the Admissions and Enrollment Center with questions about online withdrawal. Students who withdraw from class(es) receive a W grade. The grade of W does not adversely affect the student's grade-point average. However, a W is considered an attempted and not completed course and does adversely affect the student's completion rate. See the Academic Progress Policy.

Complete Withdrawal (Return of Title IV Funds and Unearned Financial Aid)

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

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

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

Contact the OFA for current Return to Title IV Funds schedules and examples.

Taxes and Financial Aid

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

Tax Credits: American Opportunity, Hope and Lifetime Learning Education Credits. The American Recovery and Reinvestment Act of 2009 expanded and renamed the already-existing Hope Credit which, along with the Lifetime Learning Credit, was created by the The Taxpayer Relief Act of 1997. Questions regarding tax issues should be directed to the IRS or your tax preparer.

Individual Retirement Accounts: The Taxpayer Relief Act allows early withdrawals from IRAs to pay for qualified higher education expenses. It also established the nondeductible Coverdell Education Savings Account (also known as Education IRA). Consult the IRS 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.



Schoolcraft College Financial Aid Academic Progress Policy

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

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

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

1. Eligibility Requirements—A student must:

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

2. Evaluation of Eligibility

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

3. Warning

Financial aid applicants who have attempted fewer than 12 credit hours and do not meet the eligibility requirements will be given a warning and granted aid for one semester. After the completion of the warning semester, the student must meet grade point average and completion ratio standards of progress.

4. Probation

Students who have attempted 12 or more credit hours and do not meet the eligibility requirements will be denied financial aid. In order to be considered for a probationary period of financial aid, students must submit a letter of appeal, including appropriate documentation, to the OFA (see below). Students who fail to make satisfactory academic progress after the probationary period will have their financial aid withdrawn until they meet the standard or submit an acceptable appeal. Loans are generally not awarded to students on probation.



5. Appeals

A student whose financial aid has been terminated may appeal in writing. All appeals must include appropriate documentation. Extenuating circumstances considered for appeals include personal illness or accident, serious illness or death of an immediate family member, or other circumstances beyond the reasonable control of the student.

Students in extended credit-hour programs and/or second-degree programs, who have attempted more than 90 credit hours, may submit appeals. They must submit a Degree Worksheet with a Course Selection Plan signed by a counselor, and must write a letter explaining their request to the OFA.

Acceptable documentation includes letters from a physician, attorney, social service agency, parole officer, or an obituary notice, divorce decree and/or academic records. The student will be notified of the appeal results in writing. Appeals can result in a) denial of reinstatement, b) reinstatement of the student's eligibility, or c) a probationary period. **If your situation does not fall under this category, you must follow the reinstatement process listed below.**

6. Reinstatement

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

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

7. Grades and Successful Completion

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

8. Audit and Credit by Exam

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

9. Repeat Courses

Students may repeat failed courses or courses in which the student does not attain the minimum grade required for their program. However, excessively repeating courses is discouraged and could affect financial aid eligibility.

10. NS (No Show) Grades

The NS grade signifies non-attendance. Please see the Non-Attendance section under Registration for more information.

DISCOVER

Succeeding as a student



SUPPORT



Schoolcraft
College

Testing Center—Testing Services

McDowell Center Room 220
734-462-4806

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

Testing/Accuplacer Placement Testing

Successful course selection begins with an accurate assessment of each student's ability in reading, writing and mathematics. The Testing Center offers walk-in placement testing. No appointment is necessary. The Accuplacer Test is available by appointment for students from other colleges.

Make-Up and Distance Learning Tests

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

College-Level Examination Program (CLEP)

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

DANTES Subject Standardized Tests (DSST)

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

General Educational Development Tests (GED)

The GED is a series of tests that measure knowledge and skills in reading, writing, mathematics, social studies and science. The tests are taken in a two-day sequence; candidates must be at least 18 years old. GED testing is scheduled on designated dates each month. Pre-registration is required. Contact the Testing Center for information and a registration brochure.

Test Proctoring Site

The Testing Center offers community proctoring by appointment on an availability basis for other colleges. Virtual Learning Collaborative students may have their tests proctored in the Testing Center by making prior arrangements. Contact the Testing Center to schedule test proctoring.

Business and Industry Assessment Services

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

ACT WorkKeys Examination Program

ACT WorkKeys Examinations are available for Michigan Paraprofessionals who need to meet the No Child Left Behind Paraprofessional Certification Requirements. Contact the Testing Center for test session dates and registration information.

Counseling Center

McDowell Center Room 275
734-462-4429

The Counseling Center provides quality services and professional staff to assist students in developing meaningful educational, career and personal plans that are compatible with their life goals. Counselors are available by appointment. Academic advisors are available on a walk-in basis. Plan early for best results. The Counseling Center can help you with:

Academic Choices

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

Personal Life Choices

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

Career Opportunities

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

Transfer Planning

- Connecting with representatives of four-year colleges and universities.
- Obtaining transfer guides.
- Using articulation agreements between Schoolcraft College and four-year colleges and universities.
- Providing guidance in selecting a transfer institution.

New Student Orientations

Student orientation programs are designed to provide essential information and help ease the transition to college for new students. All entering students must complete an orientation session before registering for classes. Complete the online orientation at www.schoolcraft.edu/counseling, or call the Counseling Center to arrange a convenient time for an on-campus orientation.



Registration

McDowell Center Room 240
734-462-4426

The Registration Process

Registration at Schoolcraft College takes place three times a year, usually starting in June or July for the fall semester, in October or November for the winter semester, and in March or April for the spring/summer sessions. Registration information, including deadlines, will be posted on our Web site. Students may register online at www.schoolcraft.edu using WebAdvisor. Students that have permission to overload, or who are enrolling in a section that has already started must register in person.

New students without previous college experience are eligible to register after they have taken assessment tests at Schoolcraft College or provided test scores taken within the last three years, and met with a counselor or academic advisor.

Students are expected to register during the official registration periods. Students wishing to register beyond the official registration period must receive written approval from their counselor or academic advisor, instructor of the course they wish to enter, and the Registrar. Students may not register past the midpoint for any course. It is college policy that students with financial obligations to Schoolcraft College will not be allowed to register until the obligations have been paid or cleared.

Students cannot attend classes for which they are not registered. Students are expected to complete the courses in which they are registered. Follow the processes outlined below related to adding, dropping or withdrawing from courses.

Schedule Adjustments

Students may perform schedule adjustments during the schedule adjustment timeframe. Please review the Important Dates page on our Web site for the last official date for schedule adjustments.

Added Courses

Students may add courses until the first class meeting of the section. Students wishing to enter a section that has started must obtain written permission from the instructor. Not all instructors accept late entry/overloads. Written consent must be brought to the Admissions and Enrollment Center within two business days or the student will not be permitted to register for the class. Open Entry/Open Exit courses have flexible beginning and ending dates. Students may not add an Open Entry/Open Exit course beyond the published registration date for Open Entry/Open Exit classes. See the Open Entry/Open Exit section in this catalog for more information.

Dropping Classes vs. Withdrawing From Classes

There is a distinct difference between dropping a class for a refund and dropping a class during the withdraw period.

- Dropping a class during the refund/schedule adjustment period means the student no longer wishes to attend the class and wishes to receive a refund. Dropped courses do not appear on the official college transcript, and no grade is issued for dropped courses. To receive a refund, a drop must be completed before or on the last date for a refund (last date of schedule adjustment) posted on the Important Dates page on our Web site. Follow the procedures listed below to officially drop a class. Refund timeframes vary depending on the length of the course.

- Withdrawing from a class means the student no longer wishes to attend the class but will not receive a refund since the refund deadline has already passed. Students can officially withdraw from classes after schedule adjustment through the last date for a W grade as posted on the Important Dates page on our Web site. Withdrawing from a class will result in a W grade on the official college transcript. W grades are not considered when calculating the grade-point average, but may impact a student's Satisfactory Academic Progress as it relates to Financial Aid.

Procedure for Dropping Class(es) to Receive a Refund

Students wishing to drop a class must do so online via WebAdvisor, during the published timeframes.

Procedure for Dropping Class(es) for a "W" Grade

Official class withdrawals are allowed through the last date for a W grade as posted on the Important Dates page on our Web site. Withdrawal deadlines vary depending on the length of the course.

To officially withdraw, students must drop the course online via WebAdvisor during the published timeframes in order to receive a W grade.

Typically there are no exceptions to the withdrawal procedure. However, students requesting a late 'W' grade, due to extenuating circumstances such as military service or unforeseen serious illness with doctor's documentation, may file a Request for Exception in the Admissions and Enrollment Center. Appeals must be received within one year of the semester for which the exception is being requested. The college may not be able to grant appeals for reoccurring, ongoing or pre-existing situations. The Exception Committee will review all requests and provide the student with a decision in writing. Typical turn-around time for the Committee is three to four weeks; however, it may take longer to receive a decision.

Non-Attendance

It is important that students do not simply stop attending classes. Students who register for a class but do not attend any class sessions, or attend only the first week of class and do not officially drop or withdraw from the class, will receive a grade of NS (No-show).

Students in Open Entry/Open Exit classes who never attended orientation or complete only orientation and no other assignments or tests will receive an NS grade. Students in online classes who never log-in to the course or who log-in and complete no other assignments or tests will receive an NS grade. Students in hybrid classes who never log-in to the course or attend on-campus sessions, or students who log-in but complete no assignments or tests and who do not attend on-campus sessions will receive an NS grade. Students in traditional classroom courses who do not attend beyond the first week will receive an NS grade.

The NS grade signifies non-attendance, and will not be used in calculating the grade point average. No show (NS) grades may affect a student's Satisfactory Academic Progress as it relates to Financial Aid.

Transfer students should investigate the implications of an NS grade with the receiving institution. It is up to the receiving transfer institution to determine how the NS grade will be handled. If students attend more than the first week of class and/or complete some coursework, and then stop attending, the instructor will assign an appropriate final grade (4.0 through 0.0) in relation to total course requirements achieved, which will impact grade point average.

Tuition and Fees

Tuition and fees must be paid in full the day the student registers. Cash, check, Visa, Discover and MasterCard are accepted forms of payment. Tuition may be covered partially or in full by an approved financial aid award.

A tuition payment plan is available on WebAdvisor. This plan allows students to pay tuition and fees in installments. Payments are made via credit card (MasterCard, American Express and Discover) or via electronic withdrawal from a savings or checking account. There is an additional and separate enrollment fee for use of the tuition payment plan.

Resident and Nonresident Status

Residency status determines a student's tuition rate.

- A resident student is one whose legal residence is within the College District. The College District includes the public school districts of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton and part of Novi. Students are charged tuition based on the address on record in the Admissions and Enrollment Center. 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, or at any time the student is in attendance at the college.
- 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) who are admitted to the college are charged International tuition rates, regardless of length of residency within the district or state. F-1 visa holders are not eligible for a residency rate review.
- Visa holders (non-F-1) may be eligible for a residency status review. Information on residency status reviews for visa holders is available by contacting the Admissions and Enrollment Center.
- 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. Residency rate reviews and address changes that impact tuition rates must be received on or prior to the deadline for the semester for which you are requesting a review. Deadlines are posted on the Important Dates page on our Web site. Residency rate reviews will not be granted for previously attended semesters.
- The Registrar will review questions about resident and non-resident status. Students who change their legal residence must complete a Change of Address form in the Admissions and Enrollment Center. Students will be asked to provide one or more of the following items as proof of resident status:
 - Valid driver's license, State ID or voter registration card showing the address in question.
 - Bills from public utilities defined as electric, gas, water, or hard line phone. Cell phone bills are not accepted.
 - Current property tax statement/receipt, rental agreement/receipt, or tax return for the address in question.
 - Pay stub or other proof the college finds acceptable.

Explanation of Fees

Many colleges charge fees ranging from a few dollars to a hundred dollars or more for each service that you may use as a student. Schoolcraft believes that it is more efficient and equitable to combine services into several modest fees that students pay each semester. The college reserves the right to assess additional fees as needed.

Registration Fee

This fee helps defray the cost of the services related to your matriculation as a student. It encompasses services such as application processing, placement testing, registration, and the issuance of student ID cards.

Instructional Equipment Fee

This per-credit-hour fee is used to defray the increasing cost of maintaining, upgrading, and replacing the equipment used in our classrooms.

Service Fee

This fee defrays the cost of several free services that Schoolcraft provides to students, such as transcripts, career counseling, student activities, graduation, and parking. Every student is charged \$10.00 once each semester/session.

Course Fees

Fees related to specific courses or programs are assessed depending upon your registration in specific classes. Course fees consist of a lab fee, an excess credit hour fee or both. Lab fees cover the cost of special materials or equipment. Excess contact hour fees are charged when a class meets more hours during a week than the credit hours assigned to the class. Course fees are listed on WebAdvisor each semester and are in addition to tuition and other fees.

Students are required to purchase their own textbooks, supplies, personal attire (such as lab coats or clinic shoes, as required by courses), special equipment and tools. Most of these items may be purchased at the College Bookstore.

Company-Paid Tuition and Fees

The college will invoice companies for students' tuition, fees, books and supplies if the companies authorize the college to do so in a purchase order or authorization letter. The purchase order or authorization must be received by Student Accounts prior to registration. Authorizations are required each semester. Contact Student Accounts, 734-462-4586, 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 page on our Web site for current information. For Continuing Education and Professional Development classes, a reduced course fee is specified for each course and is listed in schedules and brochures.

In order to receive senior adult status, persons over sixty (60) years of age must verify their age (using a birth certificate, driver's license, or other legal documents) with the Admissions & Enrollment Center (main campus), Continuing Education and Professional Development office, or the Radcliff Center (Garden City) at the time of registration or prior to the start of the course in order to receive the senior rate. No rate adjustments will be made after a course has started.

Tuition Refund Policy—Credit Courses

Refund timeframes vary depending on the length of the course. Refunds are made to students who drop credit classes within the official drop for refund timeframe posted on the Important Dates page on our Web site. Before the beginning of each term and until the end of schedule adjustment, students receive a 100 percent refund.

Typically there are no exceptions to the refund procedure. However, students requesting an exception to the refund policy due to extenuating circumstances such as military service or unforeseen serious illness with doctor's documentation, may file a Request for Exception in the Admissions and Enrollment Center. Appeals must be received within one year of the semester for which the exception is being requested. The college may not be able to grant appeals for reoccurring, ongoing or pre-existing situations. The Exception Committee will review all requests and provide the student with a decision in writing. Typical turn-around time for the Committee is three to four weeks; however, it may take longer to receive a decision.

Tuition Refund Policy—

Continuing Education and Professional Development

A full refund will be given up to the day before a class meets for the first time if a request to drop a class is made online through WebAdvisor or by written request.

Written requests for refunds must be initiated by the student and are to be mailed or walked in to the Admissions and Enrollment Center in the McDowell Center. The request must contain the following:

- Student name
- Student ID number
- Course number, section number
- A brief statement requesting the refund
- Student signature and date

The refund policy is:

- Through the day before the first class meets—100 percent course fees refunded.
- Thereafter—no refund.
- No refund or transfers for motorcycle classes.

Credit card payments made online through WebAdvisor will be credited to the account used for payment. All other refunds will be issued to the student by check and are mailed to the student's address on record unless the student has signed up for direct deposit.

Student Records

McDowell Center Room 255
734-462-4677

The Student Records 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, standardized test scores, health data and counselor advising comments. See Student Privacy Rights.

Other office services include enrollment verification, transfer course evaluation, certifying students' eligibility for graduation, and the commencement ceremony.

Transcript Request

Schoolcraft College requires the student's signature in order to provide a transcript. There are two kinds of transcripts: official and student copies. Official transcripts are usually sent to other colleges, universities or employers. There is no charge for transcripts, but transcripts will be released only after all financial obligations to the college have been fulfilled. The college reserves the right to limit the number of transcripts sent to or on behalf of a student.

Students may request a transcript online, or by sending a fax request to 734-462-4506. When making a request to have a transcript sent, students must provide their name, Schoolcraft College ID number or last four digits of Social Security Number, signature, date of birth, and a complete address to which the transcript should be sent.

Students can print student/unofficial copies of their transcripts by accessing their WebAdvisor account. Only transcripts bearing the Schoolcraft College seal and Registrar's signature are considered official, and are not issued directly to students.

Any transcript given to a student will be stamped "student copy."

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 with an R on the transcript. A grade of NS, 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.

Issuance of an Incomplete Grade

An instructor may award an I grade to students who, because of extenuating circumstances, were unable to complete the course work within the regular college semester or 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. If an I grade reaches expiration, and the Records Office has not received a change in grade form, indicating another earned grade, the I grade will be automatically changed to a 0.0 grade.

Eligibility for Athletics

Students who participate in varsity athletics must have a grade-point average in keeping with the requirements established by Schoolcraft College, the Michigan Community College Athletic Association and the National Junior College Athletic Association. Student-athletes who meet only NJCAA standards but not the Schoolcraft College standard will not be eligible to compete or to receive grant-in-aid funding.



Student Academic Support Services

Learning Support Services

Learning Support Services, which includes the Learning Assistance Center (LAC), Bradner Library, College and Beyond course, Collegiate Skills courses, English as a Second Language courses, Human Development Services course, as well as the Learning Resources course, provides opportunities and services to help students be as successful as possible in educational, occupational and personal endeavors. Emphasis is placed on the student becoming an active and independent learner. Learning Support Services is committed to helping students succeed.

Learning Assistance Center

Bradner Library Room 119
734-462-4436

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

Free Tutoring

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

Peer-Assisted Learning (PAL)

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

University Bound

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

The Freshman Focus component of the program targets incoming freshman. The goal is to provide services to a selected group of first year students in an effort to help them transition to a college setting and successfully complete their academic coursework. Assistance with supplies, participation awards, and peer mentors are some of the program services.

Writing Fellows

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

Math DVDs

The LAC provides instructional DVDs for Math 045, 047, 053, 113, 119, 128 and 129. DVDs may be checked out for two days.

Study Skills Enhancement

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

English Language Proficiency for Non-native Speakers

A lack of English language proficiency does not prevent admission to Schoolcraft College; however, most college courses require basic proficiency in English. If English is not your first language, Schoolcraft College offers two different pathways, based on your needs and your goals, to help you improve your English skills. If you plan to pursue a college education here in the United States, or you are on a student visa and need to earn credits toward a college program, you should enroll in our credit ESL courses. See page 110 for credit course descriptions and page 145 for International Student Guidelines. If your English skills are not strong enough for you to succeed in college-level classes, or if you would simply like to become more confident as you interact with American English speakers at work, home or school, non-credit ESL classes are offered through Continuing Education and Professional Development. The LAC also offers an International Student Relations Club open to all non-native English students.

Student Athletic Support System (SASS)

SASS is a program designed to enhance student athletes' educational experience at Schoolcraft College. The program provides specialized support services such as academic coaching, academic monitoring, study tables, workshops and one-on-one professional learning assistance.



Transition Center

McDowell Center Room 225
734-462-4443

The Transition Center incorporates the services of Women's Resource Center, Veterans Services, Adult Student Services and Family Resources. Open to all students and community members, the Center offers many free pamphlets, brochures and articles. Services are not gender specific.

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

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

Special Programs and Services

Transition Center Scholarships

Scholarships are available to all students who may or may not qualify for federal or state financial aid. Specific scholarships established prior to Proposal 2 (Michigan Civil Rights Initiative) may have special emphasis for women.

Special Populations Program

This program provides tuition assistance, support services and/or programs for single parents, displaced homemakers, those with limited English proficiency, those who are economically disadvantaged, individuals with disabilities and non-traditional job seekers.

Ombudsman

Center staff is available to assist students and families who may be experiencing a personal situation, such as illness. Transition Center staff can contact faculty members and notify relevant college departments.

Scheduling Assistance

Students can come to the Center for help putting together their academic schedule, utilizing the courses that have been recommended by the Counseling Office.

Divorce Support Group—Meets Year Round

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

Money Matters in Divorce—October through May

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

Ask an Attorney—October through May

On the second and third Monday of each month, a lawyer is available for free consultations on family law. The attorney is available from 5–7 p.m. on a first-come, first-served basis.

Luncheon Series

The Transition Center sponsors six luncheons each year featuring speakers on a variety of topics. Schedules of dates and speakers are available online.



Student Academic Resources

Career and Transfer Center

McDowell Center Room 205
734-462-4421

The Career and Transfer Center provides services and resources to help students learn about career, employment and transfer options. The services help students incorporate all phases of their educational experience from exploring careers, selecting a major and seeking employment opportunities, to making a smooth transition from Schoolcraft College to a four-year college or university.

Students who need assistance for career planning, employment services or transfer services can visit the Career and Transfer Center located in the McDowell Center. Licensed professional counselors specializing in career counseling and professionally trained personnel are available to assist students in the following areas:

Career Counseling

- Analyze career options with help from an experienced licensed counselor.
- Evaluate what career interests, skills or personality assessments tell you about yourself.
- Use the computerized career search engines DISCOVER and OPEN OPTIONS.
- Learn to write a targeted resume.

Career Counseling is available to students and the community.

Transfer Services and Resources

- Browse college materials: catalogs, brochures, and information on admissions and transfer requirements.
- Pick up university applications.
- Discover transfer scholarship opportunities.
- Explore transfer equivalency information.
- Check the schedule to see when your transfer university is sending an admissions representative to Schoolcraft.
- Meet with the Schoolcraft College transfer coordinator.

Employment Services

- Jobs database updated daily for students and alumni.
- Job listings from local employers for full-time, part-time and temporary positions.
- Job listings for on-campus student employment.
- Publications with resume tips, sample cover letters, interview information, thank-you and acceptance letter examples.
- Job fairs and on-campus recruiting.
- Practice interviewing using the Perfect Interview, an interactive interviewing software program.

Disability Services

Schoolcraft College provides appropriate accommodations for students with documented physical, learning and emotional disabilities. Arrangements are designed to meet individual needs and are facilitated through an Equal Access Counselor. Services include, but are not limited to, specialized counseling, application assistance, referrals, adaptive equipment, textbooks on compact disks, testing accommodations, interpreters, note takers, tutoring, faculty liaison and modifications of computer and classroom facilities. Contact the Career and Transfer Center for accommodations.

College Bookstores

Livonia Campus
734-462-4409

Radcliff Campus
734-462-4778

Online Bookstore: www.schoolcraftbooks.com

Web orders can be shipped (shipping fee applies) or picked up at the Livonia or Radcliff stores at no additional cost.

All of our stores offer a wide selection of high quality goods: new and used textbooks, Schoolcraft College clothing, gift items, school supplies and study aides. The Livonia Campus Bookstore has the TechZone, offering computer software at discounted academic pricing, Apple® products, laptop computers, graphing calculators and the latest trends in technology, with particular attention paid to academics. To help reduce the cost of textbooks, buyback is offered year round. The best time to sell back textbooks is at the end of each semester.



Academic Computer Use

Schoolcraft College offers its students access to 55 computer labs with more than 1,000 personal computers. We constantly update our software and purchase new hardware in an on-going effort to keep our students equipped with the latest technology.

Schoolcraft College Academic Computing Lab Use Policy states that students:

- Must currently be enrolled at Schoolcraft College and present proper identification when using the computer lab.
- Are restricted to using only the software that is available on the lab computers.
- Must use the computer for Schoolcraft College course assignments only.
- Must follow college policy by strictly adhering to legal use of copyrighted software.

Open Computer Labs

Livonia Campus

McDowell Center Room 100

Livonia: 734-462-4400, ext. 5147 (information) or ext. 5529 (hours)

Radcliff Center

Room 140

Radcliff: 734-462-4400, ext. 6112 (information) or ext. 5529 (hours)

The college provides two open computer labs for students working on course assignments and academic research. Students must present a Schoolcraft student ID or current schedule for admittance to computer labs and must abide by posted lab rules and guidelines regarding computer use.

Wireless Internet Access

Wireless service is currently available on the Livonia campus in the following buildings: Applied Sciences, Bradner Library, Liberal Arts, Forum, VisTaTech Center and the Waterman Wing, and the Biomedical Technology Center. Wireless accounts will have Internet access only, not access to the internal Schoolcraft network. Use a student computer in the MC100 open computer lab or the Bradner library if you need to print or access network folders.

To participate in the Schoolcraft College wireless network:

1. Send an e-mail to scwireless@schoolcraft.edu
2. State that you are requesting a wireless account
3. Include your first and last name, and Schoolcraft ID number

You will receive an automated email response from scwireless@schoolcraft.edu. Be sure that your computer's email settings and anti-spam software will allow this message to be received. The response to your e-mail will provide instructions on your assigned wireless log in ID and password and important information regarding the use of the Schoolcraft College wireless network.

Schoolcraft College does not provide technical support for connecting to the wireless network.

College Libraries

Bradner Library, Livonia Campus

734-462-4440

Radcliff Library Room 355

734-462-4400, ext. 6020

The college libraries support the curricular and personal enrichment needs of Schoolcraft's students, faculty and staff. In addition to an extensive collection of books and periodicals, the Bradner Library on the Livonia campus and the Radcliff Library in Garden City provide online access from home and on campus to a variety of academic resources including partial and full text periodical databases, newspapers, e-books, almanacs, encyclopedias, the Schoolcraft library catalog and other reference resources. The libraries also provide computers with Internet access for academic research on the World Wide Web, and the Bradner Library provides free wireless Internet access via the Schoolcraft wireless network.

Schoolcraft students, faculty and staff can obtain a library card and 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, U.S. government publications and Internet-based resources. They also offer library tours and introductions to using the Internet by instructor request. Contact either library for more information.

During the fall and winter semesters, the Bradner and Radcliff Library hours are:

	Bradner Library	Radcliff Library
Mon.–Thurs.	8 a.m.–9 p.m.	8:30 a.m.–9 p.m.
Friday	8 a.m.–4 p.m.	9 a.m.–1 p.m.
Saturday	Noon–5 p.m.	9 a.m.–1 p.m.
Sunday	Noon–5 p.m.	Closed

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



DISCOVER

Student academic policies



Schoolcraft
College

Student 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. Refer to the Non-Attendance section for more information.

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

Course Auditing

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

A student's intention to audit the course should be made known at the time of registration. A change from credit to audit after the registration period may be authorized through instructor/student consultation and written notification by the instructor to the Registrar. This change must be made before the last day to withdraw from the class for that term as posted on the Important Dates page on our Web site. Any student auditing a class may participate as a regularly enrolled student except that no final grade or credit is issued to the auditor. The Official Transcript will reflect AUD and 0.0 credits earned to signify the audited course.

Credit Hours

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

Course Load—Fall and Winter Semesters

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

Course Load—Spring and Summer Sessions

The full-time course load in the spring and summer sessions is six semester credit hours. Normally, students eligible for credit hour overloads earned a minimum grade-point average of 3.0 in the previous semester at Schoolcraft College. Students must obtain permission from a counselor or academic advisor 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 fall/winter semester.
- Part-time—Fewer than 12 credit hours per fall/winter semester.
- Special/Dual Student—High school student who is enrolled in Schoolcraft at the same time he/she is enrolled in a high school or home school curriculum.
- Advanced Standing—A student who has previously completed at least an associate degree at Schoolcraft or another college or university.

Credit by Examination

Schoolcraft College students may request credit by examination 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' and Deans' Offices.

Equivalency Credit

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

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

A minimum number of credit hours earned at Schoolcraft is required before the equivalency credit is posted to the student's record. Students must pay appropriate per-credit-hour fees.

Advanced Placement

Students may request course credit based on satisfactory test scores (3 or higher) taken through the College Board Advanced Placement program. Students requesting course credit should have their Advanced Placement scores sent to the Admissions and Enrollment Center as early as possible. Requests for credit from International Baccalaureate (IB) will be reviewed on an individual basis.

CLEP/DANTES National Credit by Examination Programs

The College Level Examination Program and the DANTES Subject Standardized Tests Program offer students the opportunity to obtain college credits based on satisfactory test score completion. Contact the Testing Center for test registration information. See page 153 for more information.

Dean's List—Recognizing Academic Achievement

Each semester we recognize students for high academic achievement by naming them to the Dean's List. The college sends a letter of recognition to students' homes and notifies hometown newspapers.

The minimum requirements for fall or winter semester are:

- Full-time students with a semester grade-point average of 3.5 or higher.
- 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.

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
W *—Withdrawal	No points
I **—Incomplete	No points
AUDIT ***—No grade or credit awarded	No points
No Show (NS)****	No points
R—Repeated course	No points

* See Dropping Class(es) for a "W" Grade. Observe dates posted on the Important Dates page on our Web site.

** See Issuance of an Incomplete Grade.

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

**** See Non-Attendance.

Note: Individual programs may have special grade requirements.

Grade-Point Average

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

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

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

$36 / 14 = 2.57$ grade-point average.

Academic Probation

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

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

Academic Dismissal

Any student on academic probation who fails to earn a cumulative 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. The student will be notified by first-class mail. A student may appeal the dismissal.

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

Readmission for Academically Dismissed Students

In order to be readmitted, students must follow the guidelines for appeal outlined in the academic dismissal notification they receive via first-class mail.

Academic Forgiveness

Students can seek Academic Forgiveness for coursework completed more than 10 years ago if they have completed at least an additional 12 credit hours at or above a cumulative 2.0 GPA. Academic Forgiveness may be granted for one semester or session's worth of work or a total of 12 credit hours total over several semesters or sessions. Academic Forgiveness can only be granted once and is non-reversible once it is granted. Due to federal regulations the Office of Financial Aid does not acknowledge Academic Forgiveness when determining eligibility for aid. Transfer institutions may or may not acknowledge Academic Forgiveness. Written request for consideration for Academic Forgiveness must be filed by the student, signed by the student's counselor or academic advisor, and submitted to the Admissions and Enrollment Center for consideration.



Appeals Procedure for Academic Matters

Students may appeal academic decisions regarding a grade or other actions resulting from their academic performance. Students must follow the proper steps in the appeal process, observing the time limits for completion of various steps in the process as follows:

Step I

Students must seek to resolve academic matters informally with the instructor within ten working days of the occurrence, or issuance of a grade. If the student's concerns remain unresolved after the discussion with the instructor, the student may proceed to Step II within ten working days after speaking with the instructor. During the spring/summer session(s), when an instructor may not be available, students may proceed to Step II after an effort is made to communicate with the instructor.

Step II

Students may formalize complaints by completing an Instructional Complaint form, acquired through the appropriate administrator's (Director, Associate Dean, or Dean) office. This form includes:

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

The administrator will review the complaint, investigate the facts, and send a written decision to the student within ten working days. If both the student and administrator 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 Vice President of Instruction. The appeal must be made in writing, including all information given in Step II, within five working days of receipt of the Step II decision. The Vice President of Instruction will hear the complaint, investigate the facts and, if needed, convene a hearing of the individuals involved. A written decision will

be given within ten working days of submission of the appeal. Certain circumstances may make it impossible to respond within the ten day time limit. If both the student and the Vice President of Instruction agree, the time limit may be extended; otherwise a decision will be made on available facts. Occasionally a situation arises which requires more immediate action. Examples include deadlines such as graduation dates, external testing dates, and transfers to other institutions or employment opportunities. The student may request an Expedited Process, in writing, to the Vice President of Instruction including all information given in Step II. If the Vice President of Instruction and Dean of Student Services concur, the case will proceed immediately to Step IV.

Step IV

If the matter is still unresolved, the student must notify the Dean of Student Services in writing, no later than five working days after the Step III decision is rendered. The Dean of Student Services will convene and chair a Hearing Committee within ten 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 working days after the hearing. That decision* is final and concludes the appeal process.

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



DISCOVER

Student rights and responsibilities



Schoolcraft
College

Student Rights and Responsibilities

Student Privacy Rights

The Family Educational Rights and Privacy Act (FERPA) of 1974 protects the privacy of educational records, establishes the right of students to inspect and review their educational records and provides guidelines for the correction of inaccurate or misleading data. Each year Schoolcraft College notifies students of these privacy rights and outlines the public information that can be released outside the institution.

No one outside the institution shall have access to nor will the institution disclose any information, other than directory information, from students' educational records without the written consent of the student. Exceptions permitted under FERPA include information released to qualified persons within the institution, officials of other institutions in which students seek to enroll, persons or organizations providing student financial aid, accrediting agencies carrying out their accreditation function, members of the Schoolcraft Community who are individually or collectively acting in the educational interests of students, persons in compliance with a judicial order and in an emergency to protect the health or safety of students or other persons.

Students wishing to review their educational records must file a written request with the Registrar. Records covered by FERPA will be made available within 30 days of the receipt of the request. The right to a review or hearing under the Act does not include any right to challenge the appropriateness of a grade as determined by the instructor. However, students may use this process to verify that the instructor's grade has been properly transmitted to the student's records.

Students may not inspect or review the following as outlined by FERPA: Financial information submitted by their parents; confidential letters and recommendations associated with admissions, employment, job placement or honors to which they have waived their rights of inspection and review; or educational records containing information about more than one student, in which case the institution will permit access only to the part of the record which pertains to the inquiring student.

If an individual student feels that his or her official records are inaccurate, misleading or otherwise inappropriate, the student may discuss his/her concerns informally with the person(s) in charge of the records involved. If these persons agree with the student, the appropriate records will be amended. If not, the student will be notified within a reasonable period of time that the records will not be amended, and also will be informed by the Dean of Student Services of the student's right to a formal hearing.

At its discretion, the college is authorized to release directory information which includes, but is not limited to, a student's name, address, telephone number, major field of study, participation in officially recognized activities and sports, dates of attendance, degrees and academic awards received, and the most recent previous educational institution attended by the student. Students may request that this information be withheld by notifying the Student Records Office in writing.

Student Code of Conduct and Judicial Procedures

Introduction

Schoolcraft College exists to serve students and the surrounding community, providing a transformational learning experience to increase the capacity of individuals and groups to achieve their intellectual, social, and economic goals. The college is also a community, and students are important members of this community. Schoolcraft College supports a positive educational environment that will benefit student success. In order to ensure this vision, to ensure the protection of student rights and the health and safety of the college community, as well as to support the efficient operation of college programs, Schoolcraft College has established a Student Code of Conduct. Every student should know the responsibilities that students assume toward other students, faculty and staff as equal members of this community. Schoolcraft College cannot condone or support any action or activity by an individual or group that impinges on the rights of others, whether these individuals are members of the student body or the community at large.

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; they enjoy the same freedoms of speech and peaceable assembly as all citizens, but they are under certain legal obligations in the exercise of these freedoms by virtue of their membership in the college community. 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.

Student Responsibilities

Along with rights come certain responsibilities. No student may take any action that restricts other individuals from pursuing their educational goals or interferes with the Board of Trustees, its representatives and college faculty and staff in the performance of their duties. In cases of noncompliance with the Student Code of Conduct, the college will impose discipline that is consistent with the impact of the offense on the college community. Schoolcraft College reserves the right to pursue criminal and/or civil action where warranted.

Students and student organizations have a right to expect enforcement of the Student Code of Conduct rules and regulations. Schoolcraft College expects students and student organizations to abide by this Code. It is important to note that unfamiliarity with these regulations is not grounds for excusing infractions.

Definitions

1. The term "college" means Schoolcraft College.
2. A "student" under this Code is defined as anyone who has been admitted to the college and with a continuing educational interest in the college. The term includes all persons taking courses at the college, either full-time or part-time. Persons who withdraw after allegedly violating the Student Code, who are not officially enrolled for a particular term but who have a continuing

relationship with the college or who have been notified of their acceptance for admission are considered “students.”

3. The term “faculty member” means any person hired by the college to conduct classroom or teaching activities or who is otherwise considered by the college to be a member of its faculty.
4. The term “college official” includes any person employed by the college, performing assigned administrative or professional responsibilities.
5. The term “member of the college community” includes any person who is a student, faculty member, college official or any other person employed by the college.
6. The term “college premises” includes all land, buildings, facilities, and other property in the possession of or owned, used, or controlled by the college (including adjacent streets and sidewalks).
7. The term “college sponsored or supervised activities” includes, but is not limited to: field trips, off-campus social activities organized by the college, official activities of college clubs, etc.
8. The term “organization” means any number of persons who have complied with the formal requirement for college recognition as a student club or organization.
9. The term “Student Conduct and Disciplinary Committee” means any person or persons authorized by the Dean of Student Services to determine whether a student has violated the Student Code and to recommend sanctions that may be imposed when a rules violation has been committed.
10. The term “Chair of the Student Conduct and Disciplinary Committee” means a college official authorized on a case-by-case basis by the Dean of Student Services to impose sanctions upon any student(s) found to have violated the Student Code. The Dean of Student Services may authorize a college administrator to serve simultaneously as the Chair of the Student Conduct and Disciplinary Committee and the sole member or one of the members of the Student Conduct and Disciplinary Committee. The Dean of Student Services may authorize the same Chair of the Student Conduct and Disciplinary Committee to impose sanctions in all cases.
11. The Dean of Student Services is the person designated by the college President to be responsible for the administration of the Student Code.
12. The term “policy” means the written regulations of the college as found in, but not limited to, the Student Code of Conduct, the college Web site and Catalog.
13. The term “cheating” includes, but is not limited to: (1) use of any unauthorized assistance in taking quizzes, tests, or examinations; (2) use of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; (3) the acquisition, without permission, of tests or other academic material belonging to a member of the college faculty or staff; (4) engaging in any behavior specifically prohibited by a faculty member in the course syllabus or class discussion (5) allowing or participating in cheating by other students.
14. The term “plagiarism” includes, but is not limited to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear

acknowledgement. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials.

15. The term “complainant” means any person who submits a charge alleging that a student violated the Student Code of Conduct. When a student believes that she/he has been a victim of another student’s misconduct, the student who believes she/he has been a victim will have the same rights under the Student Code of Conduct as are provided to the complainant, even if another member of the college community submitted the charge itself.

ARTICLE I: AUTHORITY

The Student Code of Conduct shall apply from the time of admission to the college and continue as long as the student remains enrolled at the college. It shall also be applicable to a student’s conduct even if the student withdraws from school while a disciplinary matter is pending.

The College may take disciplinary action for a violation of the Student Code of Conduct when the offense takes place on college premises or at college sponsored, endorsed, supported or related events which occur on or off campus, or when an offense which occurs off campus is such that in the judgment of the Dean of Student Services, failure to take disciplinary action is likely to interfere with the educational processes or orderly operation of the college, or endanger the health, safety and welfare of the college community.

The Dean of Student Services (or his or her designee) shall:

- Determine the composition of the Student Conduct and Discipline Committee and shall act as the arbiter of appeals.
- Develop policies for the administration of the Code of Conduct.
- Develop procedural rules for the conduct of student hearings which are consistent with the provisions of the Student Code of Conduct.
- Authorize the suspension of any student when the circumstances warrant immediate action such as in cases of threatening or assaultive behaviors (See “Emergency Sanctions”).
- Determine whether or not the Student Conduct and Disciplinary Committee shall be authorized to hear each matter.

The Student Conduct and Discipline Committee may be designated as the arbiter of disputes within the student community in cases that do not involve a violation of the Student Code. All parties must agree to arbitration and to be bound by the decision with no right of appeal.

Decisions made by the Student Conduct and Discipline Committee and/or the Dean of Student Services (or his or her designee) shall be final.

ARTICLE II: ACADEMIC AND PERSONAL BEHAVIORS

This section establishes the rules and regulations all students and student organizations are expected to follow. In consideration of the rights of and responsibilities to each member of the college community, and in compliance with the requirements of local and state statutes, the Board of Trustees of Schoolcraft College has adopted the following regulations and prohibits all students from engaging or participating in any of the practices or behaviors listed below. From time to time, additional rules and regulations may be added or amended during the year if necessary; announcements will be made upon adoption of the changes or additions and the Web site will be updated.

The following list is illustrative and not meant to be an exhaustive enumeration of inappropriate behavior.

Prohibited Behaviors/Violations

1. Interference with the proper educational functions and the appropriate educational climate of the college, including aiding and abetting another to breach the peace on college-owned or controlled property, at college sponsored/supervised functions, or off-campus conduct that adversely affects the college community and/or the pursuit of its objectives. Any form of expression that materially interferes with the educational functions and activities of the college and its operations or invades the rights of persons is prohibited. This may include failure to comply with established time, place, or manner restrictions on expression or demonstration. Such activity includes, but is not limited to, behavior in a classroom or instructional program that interferes with the instructor or presenter's ability to conduct the class or program, or the ability of others to profit from the class or program.
2. Physically harming another person, or unauthorized detention of any person. Actions which result in physical harm, have the potential for physically harming another person, which create conditions that pose a risk of physical harm to another, or which cause reasonable apprehension of physical harm are prohibited. Conduct which threatens to cause harm to persons, or creates hazardous conditions for persons, such as dropping, throwing, or causing objects or substances to fall from windows, doors, ledges, balconies or roofs is also prohibited.
3. Discrimination, harassment and offensive conduct against any person, student, or staff member on the basis of race, creed, color, sex, age, marital status, disability, and/or national origin.
4. Conduct or expression (verbal, or written) which threatens or endangers the health or safety of any person.
5. Stalking another person, defined as repeated contact without his/her consent and which causes significant mental suffering or distress.
6. Sexual misconduct, defined as offenses that include, but are not limited to: Sexual discrimination, sexual harassment, non-consensual sexual intercourse (or attempts to commit same), non-consensual sexual contact (or attempts to commit same), sexual exploitation.
7. Hazing, defined as an act which endangers the mental or physical health or safety of a student, or which destroys or removes public or private property for the purpose of initiation, admission into, affiliation with, or as a condition for continued membership in, a group or organization. The express or implied consent of the victim will not be a defense. Apathy or acquiescence in the presence of hazing are not neutral acts; they are still violations of this rule.
8. Gambling on campus or at any college-sponsored function (excludes approved charitable fundraising activities).
9. Attempted or actual theft of or damage to property.
 - a. THEFT: Theft of any kind, including seizing, receiving, or concealing property with knowledge that it has been stolen, is prohibited. Sale, possession, or misappropriation of any property without the owner's permission is also prohibited.
- b. DAMAGE TO PROPERTY: Damage to or destruction of property owned by another and/or some actions that have the potential for such damage or destruction is prohibited. Conduct which threatens to damage, or creates hazardous conditions such as dropping, throwing, or causing objects or substances to fall from windows, doors, ledges, balconies or roofs is also prohibited. This includes, but is not limited to, unauthorized application of graffiti, paint, etc. to any property.
10. Any act of arson, creating a fire hazard, falsely reporting a fire or other emergency, falsely setting off a fire alarm, misusing or damaging fire or life safety equipment, possessing or using, without proper authorization, flammable materials or hazardous substances on college property.
11. Unauthorized use of college facilities, including unauthorized possession, duplication, or use of keys to any college premises or unauthorized entry to college premises. Unauthorized entry into, presence in, or use of college facilities, equipment, or property that has not been reserved or accessed through appropriate college officials is prohibited.
12. Making, possessing, or using any falsified college document or record; altering any college document or record, including identification cards. Attempted or actual financial aid fraud or corresponding behaviors that would allow a student to receive monetary benefit for which he or she is not eligible. Altering any college document or record without permission is forbidden, including, but not limited to, furnishing false personal or student organization registration information, withholding material information from the college processes or procedures, or any other type of fraudulent act involving documentation provided to or for the college.
13. Acts of academic dishonesty, including but not limited to cheating, plagiarism, or any other form of academic dishonesty.
14. Illegal use, possession, or distribution of alcoholic beverages or being under the influence of alcohol. Students and student organizations must comply with the published regulations and any and all applicable laws concerning the transport, display, provision, and consumption of beer, wine, and other alcoholic beverages. Violating any other provision of the Student Code of Conduct while under the influence of alcohol is a violation of this alcohol policy.
15. Illegal use, possession, distribution, manufacture, or sale of drugs. The possession, use, manufacture, sale, or distribution of any counterfeit, illegal, dangerous, "designer," or controlled drug or other substance is prohibited. Violating any other provision of the Student Code of Conduct while under the influence of any illegal or illegally obtained drug is also a violation of this policy. The use of prescription medications by anyone other than the person to whom the medication is prescribed is prohibited and may result in student conduct action against both parties.
16. Failure to comply with directions of college employees, Campus Security Police, or any other law enforcement officers acting in the performance of their duties.
17. Serious or repeated violation of campus traffic rules and regulations.

18. Possession or use of firearms, tasers, stun guns, explosives, other weapons, dangerous chemicals, or improper use of fire extinguishers on college property. NOTE: Exceptions to possession or use of firearms are:
 - a) Certified law enforcement officers
 - b) Students enrolled in Schoolcraft College classes requiring firearms training
 - c) College-owned firearms used for instructional purposes.
19. Violation of federal, state, and local laws. Engaging in conduct that violates any municipal or county ordinance, federal or state law.
20. Participation in a campus demonstration which disrupts the normal operations of the college and infringes on the rights of other members of the college community. Leading or inciting others to disrupt scheduled and/or normal activities within any campus building or area; intentional obstruction which unreasonably interferes with freedom of movement, either pedestrian or vehicular, on campus.
21. Violating Schoolcraft College Computer Usage policies, including but not limited to:
 - a. Unauthorized entry into a file to use, read, or change the contents, or for any other purpose.
 - b. Unauthorized transfer of a file.
 - c. Unauthorized use of another individual's identification and password.
 - d. Use of computer facilities to interfere with the work of another student, faculty member, college personnel, or employee.
 - e. Use of computer facilities to interfere with normal operation of the college computing system.
 - f. Access to or distribution of obscene or pornographic materials.
 - g. Use of personal information from college systems to harass students, staff, or faculty on or off campus.
22. Conduct that is disorderly, lewd, or indecent, including but not limited to:
 - a. The use of any device to capture audio, video, or digital record or photograph of any person while on college premises or college events where there is a reasonable expectation of privacy (i.e., restrooms, locker rooms, etc.).
 - b. The storing, sharing, and/or distributing of such unauthorized records by any means is also prohibited.
 - c. Lewd or indecent conduct includes making obscene remarks, exposing oneself in an indecent manner, entering restrooms against the gender designation, engaging in sexual activities in public places.
23. Misusing, failing to comply with, or jeopardizing Code of Conduct procedures, sanctions/interventions, or interfering with participants. Abuse of the Student Conduct System includes but is not limited to:
 - a. Failure to obey the summons of the Student Conduct Committee or a college official.
 - b. Falsification, distortion, or misrepresentation of information before the Student Conduct and Disciplinary Committee or the Dean of Student Services.
 - c. Disruption or interference with the orderly conduct of a hearing.
 - d. Institution of a hearing or proceeding knowingly without cause.
 - e. Attempting to discourage an individual's proper participation in, or use of, the Student Conduct System.
 - f. Attempting to influence the impartiality of a member of the Student Conduct Committee or the Dean of Student Services prior to and/or during, and/or after a proceeding.
 - g. Harassment (verbal or physical) and/or intimidation of a member of the Student Conduct Committee or Appellate prior to, during, and/or after a proceeding.
 - h. Failure to comply with the sanction(s) imposed under the Student Code.
 - i. Influencing or attempting to influence another person to commit an abuse of the Student Conduct System.

Violation Of The Law And College Discipline

If a student is charged only with an off-campus violation of federal, state, or local laws, but not with any other violation of this Code, disciplinary action may be taken and sanctions imposed for grave misconduct that demonstrates flagrant disregard for the college community.

College disciplinary proceedings may be instituted against a student charged with violation of a law which is also a violation of this Student Code; for example, if both violations result from the same factual situation, without regard to the pendency of civil litigation in court or criminal arrest and prosecution. Proceedings under this Student Code may be carried out prior to, simultaneously with, or following civil or criminal proceedings off campus.

When a student is charged by federal, state or local authorities with a violation of law, the college will not request or agree to special consideration for that individual because of his or her status as a student. If the alleged offense is also the subject of a proceeding under the Student Code, however, the college may advise off-campus authorities of the existence of the Student Code and of how such matters will be handled internally within the college community. The college will cooperate fully with the law enforcement and other agencies in the enforcement of criminal law on campus and in the conditions imposed by criminal courts for the rehabilitation of student violators.

ARTICLE III: JUDICIAL PROCEDURES (Due Process)

1. Any member of the college community may file charges against any student for misconduct. Charges will be prepared in writing and directed to the Dean of Student Services. Any charge should be submitted as soon as possible after the event takes place.
2. The Dean of Student Services will designate an Administrator to conduct an investigation to determine if the charges should be disposed of administratively by mutual consent of the parties involved or by the formal conduct hearing process. Such disposition will be final and there will be no subsequent proceedings. If the charges cannot be disposed of by mutual consent, the designated Administrator will refer the matter to the Student Conduct and Discipline Committee.
3. All charges will be presented to the accused student in written form. A time will be set for a hearing, no less than five nor more than fifteen calendar days after the student has been notified, barring exigent circumstance. Maximum time limits for scheduling of hearings may be extended for cause at the discretion of the Chairperson of the Student Conduct and Discipline Committee.
4. If the accused student does not respond to the written notice of the hearing and does not appear, the hearing will take place as scheduled. If the Student Conduct and Discipline Committee finds that the accused student violated the Student Code, sanctions may be imposed.
5. Hearings will be conducted by the Student Conduct and Discipline Committee according to the following guidelines:
 - a. Hearings will be conducted in private. Admission of any person to the hearing will be at the discretion of the Chairperson of the Committee.
 - b. In hearings involving more than one accused student, the Chairperson will conduct hearings concerning each student separately.
 - c. The complainant and the accused have the right to be assisted by any advisor they choose, at their own expense. The advisor may be an attorney. The complainant and/or the accused is responsible for presenting his or her own case. Therefore, advisors are not permitted to speak or to participate directly in any hearing before the Student Conduct and Discipline Committee.
 - d. The complainant, the accused, and the Student Conduct and Discipline Committee may present witnesses subject to questioning by the Student Conduct Committee. Witnesses who are not present or available may submit statements instead.
 - e. Pertinent records, exhibits, and written statements may be accepted as evidence for consideration by the Student Conduct and Discipline Committee at the discretion of the Chairperson.
 - f. After the hearing, the Committee will determine (by majority vote) whether the student has violated the relevant section(s) of the Student Code that the student is charged with violating.
 - g. The Student Conduct and Discipline Committee's decision will be made on the basis of whether it is more likely than not that the accused student violated the Student Code.

6. There will be a single record, such as an electronic recording, of all hearings before the Student Conduct and Discipline Committee. The recording will be the property of the college.
7. Except in the case of a student charged with failing to obey the summons of the Student Conduct and Discipline Committee or a college official, no student may be found to have violated the Student Code solely because the student failed to appear before the committee.

Student Conduct and Discipline records are maintained or expunged after seven years, except in the case of suspensions and expulsions, which remain a part of the Dean of Student Services' student discipline files.

ARTICLE IV: SANCTIONS

The following sanctions may be imposed upon any student found to have violated the Student Code.

1. *Warning*—A notice in writing to the student that the student is violating or has violated institutional regulations.
2. *Probation*—For a designated period of time and includes the probability of more severe disciplinary sanctions if the student is found to be violating any institutional regulation(s) during the probationary period.
3. *Loss of Privileges/Restriction*—Denial of specified privilege or access for a designated period of time.
4. *Restitution*—Compensation for loss, damage, or injury. This may take the form of appropriate service and/or monetary or material replacement.
5. *Discretionary Sanctions*—Work assignments, service to the college or community, or other related discretionary assignments. (Such assignments must have the prior approval of the Dean of Student Services.)
6. *Suspension*—Separation of the student from the college for a definite period of time after which the student is eligible to return. Conditions for readmission may be specified.
7. *Removal from program of study*.
8. *Expulsion*—Permanent separation of the student from the college.

More than one of the sanctions listed above may be imposed for any single violation.

Emergency Sanctions

The Dean of Student Services may authorize immediate interim suspension of any student when the circumstances warrant this action, such as:

- To ensure the safety and wellbeing of members of the college community or preservation of college property; or
- To ensure the student's own physical or emotional safety and wellbeing
- or
- If the student poses an ongoing threat of disruption of, or interference with, the normal operations of the college.

The suspension will remain in effect pending the outcome of the Student Conduct and Discipline process. Any student who is being immediately banned from campus will be notified by the appropriate authorities, and will receive written notification of this sanction at his/her address of record.

Interim suspension will take effect immediately upon the direction of the Dean of Student Services or his or her designee and last for no more than ten (10) days. The ten-day (10-day) period may be extended for good cause by the Dean of Student Services or by agreement with the student.

During the interim suspension, the student will be denied access to the campus (including classes) and/or all other college activities or privileges for which the student might otherwise be eligible, as the Dean of Student Services may determine to be appropriate. The interim suspension does not replace the regular discipline process, which shall proceed on the normal schedule, up to and through the completion of the Student Conduct and Discipline Hearing, if required.

Sanctions For Student Organizations

Although not all acts of individual group members can or should be attributable to the group, any group or collection of its members acting in concert should be held responsible for its actions. In determining whether a group may be held collectively responsible for the individual actions of its members, all of the factors and circumstances surrounding the specific incident will be reviewed and evaluated. As a guiding principle, groups will be held responsible for the acts of their members when those acts grow out of, or are in any way related to a practice or pattern of behaviors established or encouraged by the group. Isolated violations of individuals may not be chargeable to the group, but evidence of group conduct exists where:

1. Members of the group act in concert to violate college standards of conduct.
2. A violation arises out of a group-sponsored, financed, or endorsed event.
3. A group leader (s) has knowledge of the incident before it occurs and fails to prevent or report the act(s).
4. The incident occurs on the premises owned or operated by the group.
5. A pattern of individual violations is found to exist.
6. Members of a group act in concert, or the organization provides the impetus or incentive for the violation.

The following sanctions may be imposed upon groups or organizations:

1. Those sanctions listed above in Sanctions, 1–8.
2. Deactivation—Loss of all privileges, including college recognition for a specified period of time.

In each case in which the Student Conduct Committee determines that a student has violated the Student Code, the sanction will be determined and imposed by the Committee. Following the hearing, the Committee Chairperson will within ten (10) calendar days advise the accused in writing of its determination and of the sanctions imposed, if any.

ARTICLE V: APPEAL PROCESS

1. The accused, having been found in violation of any portion of the Student Code, may appeal the decision/ sanctions imposed by the Student Conduct Committee under the following circumstances:
 - a. There has been an error in due process.
 - b. New evidence that was not available at the time of the hearing has come to light.
 - c. Sanctions are inconsistent with institutional precedent.
2. The appeal must be submitted in writing to the Dean of Student Services within ten (10) days from the date that the accused is notified by the Chairperson of the Student Conduct and Discipline Committee regarding the Committee decision or sanctions.
3. The Dean of Student Services will review all pertinent data regarding the appeal and will render a written decision within ten (10) calendar days or as soon as practicable. The Dean of Student Services' decision is final.

ARTICLE VI:

SEX OFFENDER NOTIFICATION AND REGISTRATION

The following language satisfies the notice required to the college community regarding registered sex offenders:

In accordance with the "Campus Sex Crimes Prevention Act" of 2000, which amends the Jacob Wetterling Crimes against Children and Sexually Violent Offender Registration Act, the Jeanne Clery Act, and the Family Educational Rights and Privacy Act of 1974, Schoolcraft College is providing a link to the Michigan State Police Sex Offender Registry. This act requires institutions of higher education to issue a statement advising the campus community where law enforcement information provided by a state concerning registered sex offenders may be obtained. It also requires sex offenders already required to register in a state to provide notice of each institution of higher education in that state at which the person is employed, carries a vocation, or is a student. In the State of Michigan, convicted sex offenders must register with the Sex Offender and Crimes Against Minors Registry maintained by the State Police.

The Sex Offenders Registration Act, MCL 28.721 et seq., directs the Michigan State Police to develop and maintain a public registry and provides guidelines on the type of offender information available to the public. The registration requirements of the Sex Offenders Registration Act are intended to provide the people of this state with an appropriate, comprehensive, and effective means to monitor those persons who pose a potential danger.

In accordance with the Wetterling Act, Megan's Law, and the Campus Sex Crimes Prevention Act of 2000, it is now mandatory that all registered sex offenders report to the law enforcement agency having jurisdiction in which the institution of higher learning is located. The Michigan Public Sex Offenders Registry can be accessed at www.mipsor.state.mi.us/

Registered sex offenders who are members of the college community, upon enrollment at the college and/or anytime thereafter while they remain a student at the college, are obligated to notify the college that they have registered or are required to register with the Michigan Public Sex Offenders Registry. Failure to notify the college is deemed to be a violation of the Student Code of Conduct, and subjects those students to all available college Judicial Processes and the Sanctions set forth.

General Information

Alcoholic Beverages and Illegal Drugs

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.

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.

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. Additional information and resources may be found on the Schoolcraft College Web site.

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, dismissed from the college.

College Closing— Due to Weather or Other Emergencies

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

Students may also register to receive messages to alert them of campus emergencies from Wayne County Emergency Alert System. Register at <https://wayne.getalerts.org>

Equity in Athletics Disclosure Act (EADA)

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

Students with Disabilities

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

Lost and Found

All found items should be turned over to the Campus Security Police Department where the items will be recorded and held. For rules on disposition of these articles, see College Policy 1070.12, or call Campus Security Police at 734-462-4424.





Parking Regulations

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. Several parking locations across campus are designated handicapped or staff and faculty parking only. Any vehicle that is parked improperly will be ticketed. The North and Central lots have areas that are assigned to staff and faculty with permits. Special medical permits are required to park in any handicapped area. No parking is permitted on any college street.

Schoolcraft Campus Security Police officers are authorized to write City of Livonia traffic citations by authority granted under Title VI, Chapter I, of the Livonia Code. Tickets are payable at the 16th District Court, 15140 Farmington Road, Livonia, Michigan. Information regarding the fines for violations can be obtained by calling the court at 734-466-2500, ext. 3542. Court dates must be set or tickets paid within 21 days.

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

Regulations

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

Safety—Classroom and Laboratory

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

Smoking

Smoking is prohibited in all buildings and within six feet of building entrances in compliance with Wayne County Clean Indoor Regulations.

Solicitation of Funds

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

Student Disciplinary Standards Committee

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

Student Financial Obligations

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

Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act of 1998

The Annual Security Report is available in the Campus Security Police Department located in the Service Building, or on our Web site www.schoolcraft.edu/cleryact.

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 who would like further information regarding this act may call 734-462-4400, ext. 5088.

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. The speed limit on Campus is 15 mph.

DISCOVER

Student life and community resources



Schoolcraft
College

Student Life

Student Identification

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

Food Service

Henry's in the VisTaTech Center, Waterman Wing
Options Snack Shop at Radcliff Center

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

Options at Radcliff provides soups, sandwiches and a wide selection of convenience foods during normal building operating hours.

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

Health Emergencies

When a student is injured or becomes ill while on campus, contact Campus Security Police at ext. 4424 from any campus phone. Campus Security Police will provide the initial response to a call for assistance. If the emergency is of an urgent nature, you also may call 9-111.

Health Insurance

Sickness and accident insurance coverage is available for full- and part-time students. Insurance brochures and prices on this program are available in all student service offices and from the Finance and Business Services Office in the McDowell Center and on the college Web site under Health Services.

Access to the Physical Fitness Facility

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

The Physical Education Building is used for instruction, special events, intercollegiate athletics and community events. When an area is not being used for a regularly scheduled class or event, students and staff may use the area if they present a Schoolcraft College current I.D., class schedule or tuition receipt to the supervisor or attendant. A schedule of open swim and fitness room hours is available in the PE Equipment Room.

Athletics

734-462-4804

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

The ocelot, *Leopardus pardalis*, has served as the mascot of Schoolcraft College since 1966. The ocelot's keen eyesight, excellent hearing and hunting ability make this now endangered species a natural fit to represent the inquisitive nature of our students and the strength of our student athletes. Two bronze-cast sculptures stand guard on campus. One, nicknamed *Scraft'ee*—the two e's represent Excellence in Education—overlooks the courtyard in the center of campus where students frequently gather and traverse throughout their day. The other, *Owen*—which means 'young fighter' in Celtic—is proudly perched outside the Physical Education building in recognition of the fierce competitive spirit of the college's student athletes.



Student Activities Office

VisTaTech Center, Waterman Wing Lower Level
734-462-4422
<http://sao.schoolcraft.edu>

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 personal 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.

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. All students are invited to join clubs/organizations.

Information about current clubs and assistance in forming a new college student club are available in the Student Activities Office and Web site. Current campus clubs and organizations at Schoolcraft College are:

- Animal Compassion Club
- Asian Student Association
- Baptist Christian Challenge
- Beats and Music Faction
- Break Dance Club
- Campus Crusade for Christ
- Catholic Student Association
- College Republicans of Schoolcraft College
- Dance Team
- Eccentric Movie Club
- EdgeRunner Ski and Snowboard Club
- Gay Straight Alliance
- Health Information Technology Club
- Inter-Varsity Christian Chapter
- Livonia Save our Youth Taskforce
- Math and Physics Club
- Metro Detroit Association for the Education of Young Children Student Chapter
- Native American Club
- Otaku Anime Japanese Animation Club
- Philosophy Club
- Phi Theta Kappa Honor Society
- Photography Club
- Project Playhem Gaming Club
- Psychology Club
- Quilting Club
- Roller Hockey Team
- Scientific Research Group
- Schoolcraft Connection Newspaper
- Schoolcraft Peace Alliance
- Student Activities Board
- Students for Life
- Students for Sensible Drug Policy
- Students for the Humane Treatment of Animals
- Table Top Gaming Club
- Video Production Club

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 and on our Web site.

Phi Theta Kappa Honor Society

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

Performing Arts Groups

734-462-4403

Schoolcraft College offers performance opportunities through the Chamber Singers, Choral Union, Jazz Band, Synthesizer Ensemble and Wind Ensemble. All groups rehearse regularly and perform concerts both on and off campus. Students may elect to participate for credit or audit. Students may choose to participate in the Choral Union, Jazz Band, and Wind Ensemble through Continuing Education units.



Community Resources

Business Development Center

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

The Business Development Center helps companies in southeastern Michigan build sound organizational strategies, develop new markets, create successful products, find and keep new customers, and incorporate new technologies. Services include:

Procurement Technical Assistance Center

The PTAC provides professional, confidential, low-cost assistance to business firms in marketing products and services to the federal, state, and local governments. The Center's knowledgeable staff helps locate bidding opportunities for your company and explore what it takes to sell your products and services to the government. It has helped many local firms identify new international markets, locate bidding opportunities, and navigate through the government contracting process. The PTAC at Schoolcraft College has helped area companies win more than \$1 billion in state and federal government contracts.

Small Business and Technology Development Center

The SBTDC provides counseling, training and research to start-ups, existing small businesses and innovative technology companies to explore new product opportunities and develop new markets. The Center's training programs help clients write business plans, develop growth strategies and create marketing plans.

Entrepreneur Support

The Business Development Center provides the above services in addition to acting as a portal to other entrepreneur support services available at the college.

Workforce Training Solutions (Contracted Training)

VisTaTech Center Room 410
734-462-4441
bdc@schoolcraft.edu

Workforce Training Solutions at Schoolcraft College provides training solutions for business and industry throughout southeast Michigan. Workforce Training Solutions staff help organizations develop a training plan, identify instructors to meet their needs, and provide a venue in which to hold the classes. Courses are cost-effective and can be customized, short-term and non-credit classes, all according to customer needs. Instructors are highly qualified practitioners with industry experience and training expertise.

Examples of courses that have been provided in the past include:

Quality and Process Improvement

- TS16949, APQP, FMEA, PPAP
- Project Management, GD&T, Print Reading, Problem Solving

Manufacturing:

- Welding, metallurgy
- Pneumatics, hydraulics, CNC, and machining basics
- Health and Safety, Hazardous Materials, Lock Out/Tag Out

Professional Skills Development:

- Teambuilding, Supervision, Customer Service, Conflict Management
- CPR

Computer Technology:

- Microsoft Office

A comprehensive list of class offerings is available through the Workforce Training Solutions Office at Schoolcraft College.

VisTaTech Center

734-462-4610
vistatech@schoolcraft.edu

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

In addition to housing the instructional kitchens of Schoolcraft's acclaimed Culinary Arts Department and the Business Development Center, the VisTaTech Center provides an attractive, functional and technology-rich venue for corporate training, conferences and business meetings. There also is space for major presentations or musical performances, as well as the student-operated American Harvest Restaurant which offers the public fine gourmet dining during lunch and dinner.

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



Continuing Education and Professional Development

Continuing Education Center
734-462-4448
CEPD@schoolcraft.edu
www.schoolcraft.edu/CEPD

The Continuing Education and Professional Development department (CEPD) at Schoolcraft College offers a diverse range of classes and programs designed to meet the ever-changing needs and interests of the community. Personal and professional learning opportunities include the following:

- Career transition exploration and training
- Professional development training, including computers, management, accounting, and recertification courses for nurses and teachers
- Small business and entrepreneur exploration and training
- Physical fitness programs for all ages, interests and abilities
- Personal enrichment classes in such areas as the arts, music, photography, culinary arts, computers, and foreign languages
- Youth development programs and Kids on Campus summer camps
- Basic academic skills refresher courses in math, reading, writing, and grammar
- TEAS, GED, GRE, GMAT, LSAT, TOEFL, ACT, SAT, and PSAT test preparation workshops
- Non-credit English as a second language classes, offered through the English Language Institute.

CEPD classes do not require a formal admissions process. Students will receive nationally recognized Continuing Education Units (CEUs) for most CEPD classes. Some specialized courses award Certificates of Accomplishment.



Children's Center

South Parking Lot, Livonia Campus
734-462-4442

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

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



DISCOVER

College Personnel



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Schoolcraft College Personnel

Administrators

- Beaudoin, Mary 1974
Bursar
AAS Schoolcraft College
- Best, A. Reginald 2008
Director of Development
BA and MA Wayne State University
- Bonner, April 1981
Director of Administrative Computing
AAS Schoolcraft College
BS Madonna University
MS Walsh College
- Borton, Jeffrey 1990
Director of Technology Services
AAPS Schoolcraft College
BS Lawrence Technological University
- Cerny, Glenn R. 2010
Vice President and Chief Financial Officer
BBA University of Michigan
MBA Eastern Michigan University
- Cicchelli, Cynthia 2001
Director of Curriculum and Assessment
BA Concordia University
MEd Wayne State University
- Daiek, Deborah B. 1998
Associate Dean of Learning Support Services
BA and MEd Western Michigan University
PhD Wayne State University
- Dunbar, Jr., William J. 2010
Dean of Occupational Programs and Economic Development
AAS Schoolcraft College
BS Michigan State University
MS Eastern Michigan University
- Fox, Sidney I. 2006
Director of Athletics
BS and ME Wayne State University
- Glass, Wayne R. 2006
Director of Grants
BS Indiana University of Pennsylvania
MBA Auburn University
- Gooden, Samuel 1995
Director of Media Services
AS Schoolcraft College
- Green, Stephen J. 2007
Director of Building Systems and Maintenance
AS Henry Ford Community College
- Hagen, Cheryl M. 2001
Dean of Student Services
BA Valparaiso University
MA Eastern Michigan University
- Hawkins, Cheryl D. 1996
Dean of Liberal Arts and Sciences
BS Eastern Michigan University
MS Wayne State University
- Heator, Martin G. 2001
Director of Marketing
BS and MA Eastern Michigan University
- Holman, Cheri 1997
Associate Dean of Distance Learning
AAPS Schoolcraft College
BBA Cleary University
MSA Central Michigan University
- Jeffress, Conway A. 1982
President
BA Washington and Jefferson College
MEd and PhD University of Pittsburgh
- Jones, Amy M. 1994
Director of Business Development Center
AA Schoolcraft College
BBA Walsh College
MBA Wayne State University
- Koenigsnecht, Cindy 2003
Executive Director of Human Resources
BA Albion
MA Central Michigan University
MA and PhD Northcentral University
- Lilley, Jeffrey 1987
Director of Finance
BS Lawrence Technological University
- Lupo, Susan 1993
Executive Director of Planning and Research
BS and MA Eastern Michigan University
- Monge, John A. 1997
Director of Campus Security Police
BS and MSA Madonna University
- Mosley, Regina 2005
Director of Financial Aid
BS University of Michigan-Flint
MS Central Michigan University
- Noeske, Natalie 2008
Director of Instructional Operations
BA and MA University of Michigan
- Petty, Leslie I. 2010
Assistant Dean of Continuing Education and Professional Development
BA Clark University
MEd and EdD Harvard University
- Piotrowski, John 1992
Director of Technical Programming
AAS Schoolcraft College
- Polkowski, James 1986
Executive Director of Business Services and Risk Management
BS Wayne State University
- Ryan, James 2008
Executive Director of Development and Governmental Relations
BS and MS Eastern Michigan University
EdD Nova Southeastern University
- Savage, Thomas S. 1985
Director of Food Service
AA Henry Ford Community College
BA Michigan State University
- Scott, Todd J. 2000
Assistant Dean of College Centers
BS Grand Valley State University
MPA Eastern Michigan University
PhD Walden University
- Stirton, Edward R. 2001
Director of Institutional Research
BA University of Michigan-Dearborn
MA New Mexico State University
- Stover, Stacey M. 2002
Director of the Transition Center
BA Michigan State University
MEd University of South Carolina
- Thomas, Tahlia E. 2002
Director of Academic Computing and Information Services Projects
BA Johns Hopkins University
- Wavrek, Diane M. 1967
Director of Special Projects
AAS Schoolcraft College
- Weinkauf, Richard J. 2007
Vice President of Instruction
AAS Paul Smith's College
AAS Schoolcraft College
BS State University of New York
BS Syracuse University
MS University of Michigan
- Wielechowski, Robert A. 1988
Executive Director of Construction and Design
AAS Schoolcraft College
BET Wayne State University
MS Walsh College
- Wilson, Matthew W. 2001
Director of Purchasing
BA and MBA Michigan State University
- Wilson-Fennell, Nicole L. 2002
Director of Enrollment Services/Registrar
BA Eastern Michigan University
MA University of Michigan
- Wiltrakis, Daniel 1988
Director of Networking and Security
AS Henry Ford Community College
- Wiltrakis, Frank P. 1985
Chief Information Officer
AS Henry Ford Community College
- Wright, John E. 2010
Executive Director of Facilities Operations
AS Schoolcraft College
Licensed Builder
- Zylka, Sheryl 1983
Dean of College Centers
AS Schoolcraft College
BS University of Michigan
MA Eastern Michigan University

Full-Time Faculty

- Abbas, Mohammed 1991
Professor, Biology
BS Baghdad University
MS Purdue University
PhD Wayne State University
- Addi, Omar, 1990
Professor, English
BA University of Mohamed V
MA State University of New York
- Anderson, Katherine 2001
Associate Professor, Mathematics
BS Northern Michigan University
MS Michigan State University
BA and MA Wayne State University
- Arsznov, Janet M. 1996
Associate Professor, Mathematics
BS and MA University of Michigan
MA Eastern Michigan University
- Austin, Holly 2004
Associate Professor, Nursing
BS Northern Michigan University
MSN Eastern Michigan University
- Baker, Stuart C. 1973
Counselor, Associate Professor
AA Henry Ford Community College
BBA Western Michigan University
MA University of Michigan
- Bearden, Lois J. 1990
Professor, Mathematics
BA and MA University of Michigan
- Berg, Steven L. 2000
Associate Professor, English/History
BA, MA, PhD Michigan State University
- Burrell, Graham C. 1975
Librarian, Professor
BA and MLS University of Michigan
- Butkevich, Nickolas 1995
Associate Professor, Biology
BS and MS Eastern Michigan University
- Campbell, Tamara 1995
Associate Professor, Nursing
BSN Mercy College of Detroit
MSN University of Michigan
- Case, Colleen M. 1996
Associate Professor,
Computer Graphics Technology
BS University of Wisconsin, LaCrosse
MLS Eastern Michigan University
- Chaudhery, Sumita 1968
Professor, English
BA and MA Howard University
PhD University of Michigan
- Cook, Steven J. 2009
Instructor, Biology
BS and MS Central Michigan University
- Courie, John 2007
Assistant Professor, Criminal Justice
BS and MS Wayne State University
JD University of Detroit-Mercy
- Decker, Joseph 1991
Professor, Culinary Arts
Certified Master Pastry Chef
American Culinary Federation
- Dickson, Paul M. 2001
Associate Professor, Chemistry
BS University of Michigan-Dearborn
PhD Wayne State University
- Ditouras, Helen 2006
Assistant Professor, English
BA University of Windsor
MA Wayne State University
- Dolgin, Steven 1990
Professor, English
AA Oakton Community College
BA and MA University of Illinois-Springfield
CAS Northern Illinois University
DA Illinois State University
- Ellis, Timothy 1999
Associate Professor,
Computer Information Systems
BBA Eastern Michigan University
- Feldbauer, Janice M. 2008
Instructor, Business
BS and MBA University of Detroit-Mercy
- Ferman, Catherine 1992
Professor, CAD/Drafting
BS, GMI, Engineering and
Management Institute
MS University of Michigan
Professional Engineer
- Flynn-Hahn, Diane E. 1996
Associate Professor,
Child and Family Services
BS and MA Eastern Michigan University
- Gabriel, Jeffrey M. 1987
Professor, Culinary Arts
AOS Culinary Institute of America
Certified Master Chef
American Culinary Federation
- Galperin, Frederick D. 1966
Professor, Economics
AB University of Michigan
MA and EdS Eastern Michigan University
- Gawronski, Kevin P. 1982
Professor, Culinary Arts
AAS Schoolcraft College
Certified Master Chef
American Culinary Federation
- Golovoy, Norma E. 2008
Assistant Professor, Biology
BS and MS University of Puerto Rico
MS University of Michigan
- Grace, Elizabeth A. 2000
Associate Professor,
Child and Family Services
AAS Schoolcraft College
BGS University of Michigan
MEd Wayne State University
- Gray, Stacey 2007
Assistant Professor, Biology
BS University of Michigan-Dearborn
MS Eastern Michigan University
- Haight, Marcus 2003
Associate Professor, Culinary Arts
Certificate Culinary Arts Schoolcraft College
Certified Executive Chef
Certified Executive Pastry Chef
American Culinary Federation
- Harris, Mark C. 1997
Professor, English
BA Michigan State University
MA University of South Carolina
- Hartman, James R. 1987
Professor, Theatre, Communication Arts
BS and EdM University of Cincinnati
- Holody, Paul 2002
Associate Professor, Physics
BS University of Michigan
PhD Michigan State University
- Howie, Cedric 1991
Professor, Economics
BA University of North Carolina
MS Murray State University
- Hugelier, Daniel 1991
Professor, Culinary Arts
Certified Master Chef
American Culinary Federation
- Huston, Mark R. 2006
Assistant Professor, Philosophy
BS Central Michigan University
PhD Wayne State University
- Jackson, Lisa R. 2009
Instructor, Psychology
BS Bowie State University
MA/PhD University of Michigan
- Johnson, Rodney 1986
Associate Professor, Welding
Certificate Schoolcraft College
Certified Welding Educator
Certified Associate Welding Inspector
Residential Builder License
Certificate Welding Fabrication
Certificate Applied Physical Metallurgy
Metallurgical Co-Operative Experience
Completion
Certificate Hazardous Materials Management
- Kavanaugh, Edward A. 1982
Professor, Mathematics
BS and MA University of Michigan
- Kerr, Sandra J. 1994
Professor, Mathematics
BSE University of Michigan
MA Wayne State University
- Kirkpatrick, Kent 1992
Professor, Political Science
BS and MA Eastern Michigan University
- Kramer, James R. 1986
Professor, Electronics
BA, BS and MS Eastern Michigan University
- Krystyniak, Karen 2000
Counselor, Instructor
BS Madonna University
MA Eastern Michigan University
- LaJoy, Mary B. 2001
Counselor, Associate Professor
BS Western Michigan University
MA Eastern Michigan University
- Lavis, Jerome M. 2010
Instructor, Chemistry
BS Ecole Supérieure de Physique et Chimie
MS University of Paris VI
PhD Michigan State University
- Lazarski, Andrea L. 2006
Assistant Professor, Mathematics
BS University of Michigan
MA Wayne State University
- Loving, Shawn 2008
Assistant Professor, Culinary Arts
AAS Schoolcraft College
Certified Executive Chef
American Culinary Federation

- Maheshwari, Archana 2002
Associate Professor, English
BA and MA Osmania University
MA Wayne State University
- Marroso, Marlynn J. 1998
Associate Professor, Nursing
AAS Henry Ford Community College
BSN University of Michigan
MSN Wayne State University
- McCoy, Michael D. 2009
Instructor, Mathematics
BS Western Michigan University
MS University of Nebraska-Lincoln
- McNutt, Caroline H. 2000
Associate Professor, Biology
BS and MS University of Western Ontario
- McPherson, Doris 1992
Professor, Computer Information Systems
BS, MA and Specialist
Eastern Michigan University
EdD Nova University
- Mehall, Michael J. 1998
Professor, Computer Graphics Technology
BFA and MA Wayne State University
- Mellnick, Gerard J., CPA 2007
Assistant Professor, Business
AC Henry Ford Community College
BBA University of Michigan-Dearborn
MBA Wayne State University
- Mingela, Audrone M. 2000
Associate Professor, Mathematics
BS University of Michigan
MA Eastern Michigan University
- Monroe, Carl 2002
Associate Professor, Counselor
BA Sacred Heart Seminary
MA Wayne State University
- Moore, Josselyn 1995
Associate Professor, Anthropology, Archaeology, Sociology
BA Washington University
MA Hunter College City
University of New York
- Morelock, Donald L. 1967
Professor, Music
BM University of Oklahoma
MM University of Michigan
- Nag, Prantosh, 1969
Professor, Economics
BA Scottish Church College
Calcutta University, India
MS and PhD University of Minnesota
- Nesbit, P. Diane 1985
Librarian, Professor
AA Michigan Christian College
BA Marygrove College
MLS Wayne State University
- Nissen, James C. 1996
Associate Professor, Humanities
BM, MM, and DMA University of Michigan
- Nofz, Andrea L. 1999
Associate Professor, Spanish
BA and MA Michigan State University
- Nuffer, Roy A. 1987
Librarian, Professor
BA and MSLS Wayne State University
- O'Connell, Diane 1990
Professor, Geography
BA College of William and Mary
MS Eastern Michigan University
- O'Connor, Thomas A. 1990
Professor, Biology
BA and MS Purdue University
PhD University of Washington
- Olson, Sarah M. 2000
Associate Professor, Art
BAEd, BFA, MA University of Michigan
- Ontko, Susan M. 2006
Assistant Professor, Business
BA General Motors Institute
MBA University of Michigan
- Orick, Michael 1993
Professor, Biology
BA University of Michigan-Dearborn
MS Eastern Michigan University
- Palmer, Nancy 1995
Associate Professor, Nursing
BSN Mercy College of Detroit
MSN Wayne State University
- Pickett, Kenneth M. 2006
Assistant Professor, Metallurgy
AAS Schoolcraft College
BS Madonna University
MSIT Eastern Michigan University
- Pilgrim, Colleen C. 2000
Associate Professor, Psychology
BS Michigan State University
MA and PhD Wayne State University
- Polcyn, Brian D. 1997
Associate Professor, Culinary Arts
Certified Executive Chef
American Culinary Federation
- Polot, Barton L. 2001
Associate Professor, Music
BM, MM and PhD University of Michigan
- Pricer, Wayne F. 1994
Librarian, Associate Professor
ALA Oakland Community College
BA Madonna University
MSLS Wayne State University
- Quell, Elizabeth P. 1991
Professor, Nursing
BSN University of Michigan
MSN Wayne State University
- Ramey, Lavonda G., CPA 1985
Professor, Accounting
BBA and MBA University of Michigan
- Randall, Michelle F., CPA 2001
Associate Professor, Accounting
BBA University of Michigan
MBA Wayne State University
- Regner, Deborah A. 2006
Assistant Professor, Psychology
BS and MS Eastern Michigan University
- Rexius, James E. 1981
Professor, Geology
BA University of Michigan
MS Eastern Michigan University
- Richards, Christopher M. 2001
Counselor, Associate Professor
BS and MA Eastern Michigan University
- Rubio, Patricia A. 1969
Professor, Health Information Technology
BS Mercy College of Detroit
MSA Central Michigan University
- Rybicka, Elzbieta T. 2006
Assistant Professor, English
BA and MA Jagiellonian University
- Sager, Todd S. 2009
Instructor, Sound Recording Technology
BM and MM University of Michigan
- Santiago, Rodolfo D. 2002
Associate Professor, Computer Information Systems
BS University of the Philippines
MBA University of Detroit
- Schaumann, Karen E. 2007
Assistant Professor, Sociology
BS and MA Eastern Michigan University
- Scheller, Jody E. 1993
Professor, Health Information Technology
AS, BS and MS Mercy College of Detroit
- Schlick, William E. 1995
Professor, Computer Information Systems/ Electronics Technology
AAS Schoolcraft College
BEE Wayne State University
Microsoft Certified Systems Engineer
Certified Bio-Medical Electronic Technologist
- Schuett, Faye 1992
Professor, English
BS Illinois State University
MA and PhD University of Tulsa
- Schwartz, Randy K. 1984
Professor, Mathematics
BA Dartmouth College
MA University of Michigan
- Sheppard, Cynthia M. 2002
Associate Professor, Nursing
BSN Mercy College of Detroit
MSN Madonna University
- Simmons-Short, Ida C. 1990
Professor, English
BA and MA University of Michigan
- Snyder, Cheryl A. 1998
Professor, Chemistry
BA Suny at Plattsburgh New York
MS Purdue University
- Stetson, Bradley D. 2006
Assistant Professor, Mathematics
BS University of Michigan
MS University of Florida
- Suess Kaushik, Anita B. 2006
Assistant Professor, French/German
BA Eidgenossische Dolmetscherschule
MA University of Paris
MA and PhD University of Cincinnati
- Taylor, Bonnita K. 2002
Associate Professor, Biology
BS Michigan State University
MS Eastern Michigan University
- Taylor, JuJuan C. 1989
Professor, Communication Arts
BA Mercy College
MA University of Detroit
PhD Michigan State University
- Thomson, Alexander 1999
Associate Professor, Political Science/History
BA, MA and PhD Wayne State University

Vendittelli, Deborah S. 1989
Professor, Nursing
 AA Lake Superior College
 BSN Lake Superior State College
 MSN University of Texas

Waldyke, Michael J. 2001
Associate Professor, Chemistry
 BS Calvin College
 MS University of California, Berkley

Wood, Christopher J. 2006
Assistant Professor, Physics
 BS and MS University of Michigan
 MS Eastern Michigan University

Wroble, Stephen A. 1991
Professor, Art,
Computer Graphics Technology
 BFA Michigan State University
 MA Wayne State University

Zaccone, Lisa A. 2000
Associate Professor, Mathematics
 AAS Delta College
 BS Michigan Technological University
 MS Capella University
 MA Eastern Michigan University
 Professional Engineer

Support Staff

Adams, Lisa 2002
Primary Caregiver

Adams, Susan 1991
Help Support Specialist

Agostinelli, Janet 2008
Programmer/Analyst

Anchor, Elizabeth 1997
Marketing Associate

Anderson, III, Bruce 1999
Electronic Technician

Arambasich, Denise 2003
Financial Aid Specialist

Barney, Cynthia 2000
Financial Services Office Assistant

Bazylewicz, Christina 2002
Supervisor, Duplication Design Center

Belknap, Jeffery 2010
Computer Technician

Bellino, Pamela 2000
Senior Buyer

Berendt, Amy 1989
Compensation Specialist

Bettis, Patricia 1981
Accounts Payable Associate

Bialo, Michele 2006
Program Manager

Bloedel, Mary 2004
Secretary III

Bodurka, Jennifer 2006
Programming Coordinator

Bona, Roberta 1995
Enrollment Services Office Assistant

Boyle, Charlene 1992
Accounts Payable Associate

Brdak, III, Raymond 2010
Campus Security Police Officer

Brown, Bernice 1990
Curriculum and Assessment Associate

Brown, Catherine 2001
Secretary III

Brown, Curtise 2011
Financial Aid Coordinator

Brown, David 1997
Media Technician

Brown, Kathy 1997
Coordinator, Instructional Operations

Brown, Paul 1983
General Maintenance

Bushaw, Lisa 2005
Coordinator, Student Recruitment

Butler, Gloria 2008
Coordinator, Testing Center

Cappabianca, Donna 2008
PTAC Technician

Capps, Rachel 2005
Coordinator of Financial Aid Programs

Cardinal, Kimberly 2009
Purchasing Assistant

Chatham, Robert 2001
Campus Security Police Officer

Cheema, Lakhbir 1996
Culinary Sanitarian

Cichonski, Carol 1995
Secretary III

Cipparone, Christa 2002
Coordinator, Transition Center

Colling, Gregory 1985
Campus Security Police Officer

Cook, Aaron 2004
*Assistant Director-Food Service/
 Executive Chef*

Cook, Jennifer 1997
Utility II

Coutts, Roger 1995
Network Support Specialist

Cox, Kathleen 1999
Coordinator, Student Employment

Crockett, Ryan 2009
Instructional Designer

Cyrluk, Susan 2010
Benefits Manager

Czeszewski, Scott 2007
Computer Technician

Dani, Deborah 1992
Human Resources Technician

Deane, Jann 1998
PTAC Coordinator

Deych, Ann Marie 2009
Senior Buyer

Dillard, Shauna 2010
Secretary III

Dixon, Shirley 1989
Research Coordinator

Downing, Carrie 2010
Financial Aid Associate

Duka, Kenneth 1986
Utility II

Duncan, Jr., Timothy 1997
Networking and Software Specialist

Durling, Brenda 1998
VisTaTech Conference Center Manager

Eleson, Belinda 1979
College Receptionist

Erisman, Bradley 1995
Bookstore Operations Associate

Evans, Pandy 2006
Secretary III

Fenton, Linda 2008
Secretary II

Fleming, Michael 1983
Operations Technician

Ford, Rachel 2006
Learning Options Associate

Ford, Jr., Thomas, 2000
Technical Support Specialist

Fournier, Jeffrey 2001
Media Technician

Fournier, Kimberley 1998
Learning Resources Assistant

Fournier, Ronald 1998
Skilled Maintenance, HVAC

Fox, William 1986
Computer Technician

Frader, Sheri 2006
Secretary IV

Frentzos, Karla 1993
Executive Assistant

Fulton, Gary 2003
Coordinator, Academic Computing Labs

Galindo, Joyce 1996
Coordinator, Athletic Operations

Gallagher, Diana L. 1989
PE Attendant

Gasperosky, Brian 2008
Programmer/Analyst

Gaynier, Michelle 2007
Coordinator, College Communications

Geinzer, Christine 2000
Project Manager

George, Kimberly 2006
Secretary IV

Gernert, Kerry 2001
Interior Design Coordinator

Gillow, Janine 1998
*Executive Assistant/Budget and Project
 Coordinator*

Gniewek, Donna 1999
Senior Graphic Designer

Goodrich, Stephen 2002
Media Technician

Gosur, Maria 2011
Web/Application Developer

Gough, Gary 2010
Campus Security Police Officer

Grant, Philip 1977
Utility II

Greenshields, Thea 2000
Secretary III

Greifenberg, Jason 1997
Technical Support Specialist

Gumina, Sara 1996
SBTDC Technician

Gumm, Debra 2007
Enrollment Services Office Assistant

- Hamm, April 1995
Assistant Director College Bookstore
- Harrison, Becky 1988
Utility II
- Healy, Jana 2009
Office Assistant, Counseling
- Henry, Kurt 1994
Utility II
- Heusner, Scott 1997
Programmer/Analyst
- Hinzman, Sylvia 1988
Public Safety Education Associate
- Hochberg, Ellen 1998
Senior Graphic Designer
- Hoey, Maureen 2007
Lead Account Manager
- Holt Schneider, Donna 1996
Primary Caregiver
- Hooper, Mary 2001
Primary Caregiver
- Howell, Bradley 1999
Skilled Maintenance
- Hubenschmidt, John 1990
General Maintenance
- Hudson, April 2004
Utility I
- Hudson, Jr., Robert 1980
Utility I Leader
- Isabell, Agnes 1995
Secretary IV
- Jackson, Andre 2010
Utility II
- Jarvis, Sandy 2005
Payroll Associate
- Johnston, Holly 2008
PTAC Technician
- Jones, David 1995
Campus Security Police Officer
- Jones, Terasa 1991
Office Assistant, CEPD
- Kendall-Williams, Michele 2007
Record Retention/Archive Specialist
- King, David 1980
Utility II
- Kiurski, Catherine 1976
Executive Assistant
- Klotz, Holly 2002
Operations Coordinator
- Komiensky, Adam 2006
Utility II
- Korol, George 1992
Campus Security Police Officer
- Kovacs, Chris 1991
Campus Security Police Officer
- Kramer, Phyllis 2002
CEPD Technician
- Kudlawiec, John 1994
Utility I
- Lamphiear, Allison 2009
Academic Advisor
- Landau, Brent 2006
Academic Advisor
- Larente, Janice 2006
Primary Caregiver
- Latarski, Daniel 2007
Media Technician
- LaVeque, Randolph 1999
Utility II
- LaVeque, II, Randolph 2010
Utility II
- Law, Darlene 2010
Cashier I
- Leavens, Brenda 1999
Student Financial Services Manager
- Lightfoot, Russell 1977
Utility I Group Leader
- Logan, Caroline 2002
Financial Aid Associate
- Losey, Kenneth 2010
Campus Security Police Officer
- Losey, Kevin 1994
General Maintenance
- Loudermilk, Jason 2009
Security Systems Specialist
- Lounsbery, Richard 1989
Campus Security Police Officer
- Lowe, Claudette 1998
Administrative Coordinator
- Lozinski, Stanley 1993
Utility II
- Ludwiczak, Kimberly 2003
Accounting Associate
- Lynch, Marjorie 1973
Special Events Coordinator
- Mabry, Melissa 2001
Electronic Technician
- Machniak, Elizabeth 1994
Secretary II
- Maisano, Joseph 1999
Networking and Software Specialist
- Malinowski, Karen 1995
Continuing Education Associate
- Manning, Gregory 1978
Skilled Maintenance
- Mansfield, James 2002
Utility I
- Margherini, Randy 2004
Utility II
- Martin, Colleen 2008
Academic Advisor
- Mason, Denise 1992
Utility II
- Mattson, Lorna 1987
Accounts Receivable Associate
- Matusik, Sherrine 1983
Technical Support Coordinator
- McCardell, Catherine 2002
Assistant Director, Enrollment Services
- McCardell, Timothy 2001
Utility II Leader/Repair Technician
- McCollister, Donald 1987
Storekeeper Leader
- McCollister, Donna 2004
Utility II
- McDermott, Holly 2005
Service Supervisor
- McDonald, Cheryl 1990
Instructional Operations Specialist
- McVittie, Donald 1979
Technology Lab Coordinator
- Merry, Elizabeth 2011
Facilities Management Associate
- Mertens, Diane 2002
Secretary II
- Milewski, Danny 1977
Bookstore Assistant A
- Milewski, Robert 1986
Bookstore Assistant B
- Miller, Donald 2005
Utility II
- Miller, James 1986
Utility I
- Miller, Tracy 2006
Assistant Registrar
- Miner, Christopher 2009
Utility II
- Misiak, Christopher 1986
Culinary Arts Program Coordinator
- Modica, Jeffrey 2004
Skilled Maintenance, HVAC
- Mog, Patrick 1983
Skilled Maintenance, HVAC
- Moloney, Steven 1996
Multimedia Coordinator
- Moorodian, Paul 2008
Utility II
- Moschet, Judy 1999
Document and Layout Associate
- Moss, Carl 1996
Utility II
- Murphy, Lauren 2009
Promotions Coordinator
- Navarre, Mara 2008
Account Manager
- Nowacki, Darryl 1987
Networking and Software Specialist
- O'Connor, Debra 1996
Lead Help Support Specialist
- Oliver, Sheba 2007
Graduation/Records Coordinator
- Patow, Craig 2005
Coordinator, Academic Computing Labs
- Patterson, Elaine 2007
Laboratory Technician
- Paxton-Keehner, Pamala 2003
Advisor/Veteran's Services Coordinator
- Perez, Patricia 1973
Secretary IV
- Perugia, Colette 1995
Project Manager
- Piasentin, Gerard 1997
Project Engineer
- Popkes, Jennifer 2000
Bookstore Assistant C
- Psilidis, Kelly 2008
Student Recruitment Specialist/E Recruiter
- Puhlman, Sharol 2004
Secretary II
- Ragan, Sr., Michael 1976
Custodial and Operations Leader
- Rapitis, Markos 2010
Data Analyst

Rice, Ruth 2000
Utility II

Richards, Christina 2004
Utility II

Riopelle, Lisa 2007
Financial Aid Associate

Risatti, Angela 2000
Secretary III

Roberts, Lynne 2010
OE/OE Lab and Testing Administrator

Rose-Laird, Giselle 2010
Secretary III

Rodriguez, Robert 2007
Secretary II

Rourk, Jr., Thomas 2003
Utility II

Rybarczyk, Meghan 2010
Clerk

Rydzewski, David 2000
*Shipping and Receiving
Operations Supervisor*

Sather, Susan 1986
Payroll/Payables Manager

Sauder, Janel 1999
Sous Chef

Schaffrath, Rochelle 1980
Labor and Employee Relations Manager

Schopieray, Kristen 2008
Clerk A

Schultz, Robert 2007
Media Technician

Seewald, Mathias 2007
General Maintenance

Shaughnessy-Smith, Jean 1989
Supervisor, Children's Center

Shelley, Rory 2011
Utility II

Sinitski, Carrie 2009
Customer Service Associate

Skaggs, B. Ione 2001
Document and Layout Associate

Skiera, Katie 2006
Employment Coordinator

Smereka, Corinne 2010
Contracted Training Coordinator

Smith, Emily 1997
Enrollment Services Office Assistant

Smith, Jonathan 1998
Account Management Associate

Smith, Kenneth 1987
Storekeeper

Smolen, Samantha 2007
Enrollment Services Office Assistant

Spaniak, Ginny 2007
Records Office Assistant

Staknis, Barbara 1996
Secretary A

Stando, Michelle 2008
Assistant Director, Institutional Research

Stanton, Fred 2007
Public Safety Education Coordinator

Stapula, Jeanne 1999
Campus Security Police Associate

Stowell, Todd 1996
Coordinator, Student Activities

Sullivan, Patrick 1988
PE Attendant Group Leader

Swiger, Jr., Curtis 1983
Sergeant, Campus Security Police

Tagarel, Lyndsay 2003
Bookstore Purchasing Associate

Taylor, Lucian 1980
Storekeeper

Taylor, Patsy 2002
Primary Caregiver

Tellitocci, Joyce 1997
Media Coordinator

Theakston, Jennifer 2002
Secretary III

Thompson, Kevin 2002
Coordinator, Academic Computing Labs

Thomson, Tammy 2000
SBTDC Coordinator

Tong, Michael 1988
Utility II

Tremblay, Lou-Ann 2002
Utility II

VanHeusden, Valerie 2007
Secretary III

VanLue, Jr., Robert 1997
Programmer/Operator

Vert, Penelope 1996
Purchasing Assistant

Wagers, Mark 1998
Utility II

Wallen, Kerri 2000
Operations Specialist

Watkins, Joel 1989
Laboratory Coordinator

Weber, Rebekah 1998
Secretary III

Wesolowski, Douglas 2003
Utility I

White, Ann 2007
Accounts Receivable Associate

Wiktor-Proffitt, Michelle 1988
Instructional Operations Office Assistant

Williams, Michael 2007
Assistant Director, Financial Aid

Wilson, Janet 1993
Associate Director, Accounting

Zachos, Patricia 1999
Secretary IV

Zhang, Wei 2009
Programmer/Analyst/SSRS Developer

Adjunct, Part-Time Faculty

The following part-time adjunct instructors have earned a minimum of 100 points in one or more Schoolcraft disciplines. Some have expertise in more than one discipline. Highest earned degree is indicated.

ADJUNCT PROFESSOR

(Min. 14 yrs. service & 200 points)

Allen, Robert, PhD.....PHIL

Alway, Peter, MS.....PHYS

Ames, Carol, BSN.....AHE/NURS

Andersen, Katherine, MA.....MATH

Anderson, Diane L., MS.....BIOL/HIT

Anderson, Jr., Thomas, PhD.....HIST

Bagdadchi, Mahin, MS.....CHEM

Balfour, Linda, MA.....MATH

Behler, Conrad, MA.....HIST

Bell, Carolyn, PhD.....ENG

Bell, Patricia, PhD.....HIST

Binkowski, Christine, MS.....MA

Bogarin, Russell, MA.....ECOUN

Boron, James, MA.....CIS

Bowers, Jr., Anne, PhD.....COMA

Breger, William, MBA.....ACCT

Brennan, Judith M., MS.....PSYCH

Brooks, Gale, BSN.....NURS

Brown, Kathy, MS.....ACCT

Buchta, Patricia, BSN.....NURS

Burke, William, MA.....POLS

Burnham, Robert, MS.....QM

Cardellio, Carla, MA.....BUS

Cavan, Paul, MS.....COR

Cavanaugh, Gerald, MA.....CAD/DRFG

Cieslak, Daniel H., BS.....BUS

Clack, Donna, MA.....COLLS

Conway, Daniel J., MA.....POLS

Cramb, Jr., Richard, MA.....CJ

Delonis, Richard, JD.....CJ

Dembicki, Helen, MA.....ENG

Derderian, Harry, MBA.....BUS

Derr, Carol L., MA.....HIST/POLS/SOC

DiDonato, Jeanine A., MS.....MATH

Donkers, Sylvia, MEd.....CIS/OIS

Dostal, Frederick, MB.....ACCT

Driscoll, Faye, MA.....COUNS/HDS/PSYCH

Edwards, Allan, EdD.....MATH

Fletcher, Debra, MA.....BIOL

Friedrich, Paul, MA.....MATH

Garcia, Glenda, MA.....PSYCH

Gates-Palombo, Debora, MA.....ECOUN

Gibbons II, Charles, AAS.....MET/WELD

Glass-Boyd, Crystal, MA.....GEOG

Gordon, Richard A., MA.....ENG

Gordon, Suzanne, BSN.....NURS

Graham, Jeanne R., BA.....	COMA/ENG	O'Kelly, James, MA.....	POLS	Begle, Catherine, AA.....	CGT
Grant, Dorothy, MA.....	COLLS	Oakes, Michael, MA.....	GEOG	Bielat, Robert, MA.....	ART
Grewe, Barbara, MSN.....	NURS	Olech, Timothy, MS.....	BIOL	Blau, Ben, AAS.....	SRT
Griffith, Robert, MBA.....	ACCT	Parsons, Wayne A., MA.....	CIS	Boyde, Silvia A., MA.....	COLLS
Grodsky, Elliott, MA.....	ENG	Partyka, Patricia, MEd.....	CIS/OIS	Brewer, Janice, MS.....	ACCT
Harden, Shirley, EBM.....	MUSIC	Phillips, Clyde T., MS.....	CIS	Burhans, Bruce, MA.....	ANTH/HIST
Harm, Nancy, EdS.....	PSYCH	Poledink, Alice, MA.....	ENG	Buslawski, Jr, Robert, MA.....	COMA
Harper, Ellen, MSA.....	AHE	Prescott, Jennifer, MBA.....	MATH	Callahan, Dena L., BA.....	ENG
Hawkins, Cheryl, MS.....	AHE/HIT	Probeliski, James, MS.....	MATH	Catalano, Timothy.....	FIRE
Hoffmann, Jr., Walter, MEd.....	PSYCH	Qiu, Yun, MS.....	MATH	Crawley, Christopher.....	FIRE
Holman, Cheri, MSA.....	BUS/OIS	Rabotnick, Seymour, MBA.....	ACCT	Doinidis, Elgene, MS.....	AVM
Holtzman, Roberta, MA.....	FR/SPAN	Ramia, Rafael, MS.....	MATH	Donahee-Rader, Mary, Certificate.....	MA
Hopfner, John, MBA.....	BUS	Redmond, Charles, MS.....	CIS	Dreyfus, Raymond, MBA.....	BUS
Horvath, John, MA.....	PSYCH	Reynolds, John R., MA.....	HIST	Ellies, Karen, MBA.....	BUS
Hummer, Herbert, MS.....	COR	Robinson, Ronald, MA.....	POLS	Enteshary-Najafabady, Abbas, MS.....	CIS
Hurick, Patricia, MA.....	COUNS	Safran, Kenneth, JD.....	BUS	Fox, Harvey, MS.....	CIS
Jackson, Harold, MA.....	MATH	Sarris, Cynthia, MFA.....	ART	George, Philip.....	FIRE
Jacobs, Elisabeth, MA.....	CGT	Sarris, Stephanie, MFA.....	ART	Gordon, L. G, MS/MSA.....	BIOL
Jacobs, Jan, PhD.....	PSYCH	Schaden, J. R., PhD.....	PHIL/PSYCH	Haldane, Judith, MA.....	MATH
Johns, Michael, MA.....	HIST	Schuby, Thomas, MA.....	SOC	Handelman, Nancy, MA.....	COLLS
Johnson, Theodore J., MBA.....	CJ	Sikorski, Gary.....	PA	Harper, Michael, AAS.....	FIRE
Jooharigian, Robert, PhD.....	PHIL	Simo, C.T., MSA.....	BUS	Haynes, Constance, MSBA.....	BUS/OIS
Jubenville, Lawrence, ME.....	SOC	Sitzler, Mardell, MA.....	MATH	Hays, Samuel K., MA.....	ENG
Kappen, Orville, MA.....	CJ	Smilnak, John, BS.....	FIRE	Hewelt, Barry, MA.....	ENG
Keller, Mary J., BS.....	CCD	Smith, Craig, MA.....	ART/HUM	Hill, Michele L., MS.....	ACCT
Kitakis, Frank G., PhD.....	BIOL	St. John, Beverly J., MS.....	BIOL	Hiller, David, MS.....	CJ/FIRE/PA
Kiurski, Thomas E., MPA.....	FIRE	St. Louis, Mary, MA.....	MATH	Hochberg, Ellen, MA.....	CGT
Koelzer, Leonard, MBE.....	CIS	Stanley, Dorothy, MA.....	MATH	Hunley, Ellen M., MA.....	ENG
Kohlert, Peter A., MSA.....	MATH	Stanton, Fred, BS.....	PA	Jawad, Badri, MBA.....	ECON
Koreenchuk, Nancy I., MA.....	COMA	Steffen, Carolyn, PhD.....	BIOL	Johnson, Kelly, MS.....	PSYCH
Kurland, Sheila, MS.....	BIOL	Stuber, Patricia A., MEd.....	ECOUN	Kelly, Gary L., MA.....	HIST
LaBerge, Brenda, BSN.....	NATP/NURS	Switalski, Jurgen, PhD.....	CHEM	Keyes, Gene, CME.....	MFG
Laird, Anita S., MS.....	CIS	Szabo, Sharon, MBEd.....	CIS	Kirkby, Frederick, MA.....	COMA
Lane, Robert H., MA.....	BIOL	Talbert, Linda S., MA.....	COLLS	Knox, Mary, BA.....	CJ
Lesko, John, MS.....	PHYSICS	Taylor, Kathy, BS.....	HIT/MT	Kronk, James, MBA.....	BUS
Levy, Barbara S., MSN.....	NURS	Temporelli, Barbara, MS.....	CHEM	Lai, Hongyuan, PhD.....	MATH
Lindenberg, Arthur, MFA.....	ENG	Towner, Jr., Melvin, MBA.....	CIS	Langdon, Julie E., BAA.....	CGT
Liss, Marianna, MA.....	COMA	Trembath, Darryl, MBA.....	BUS	Maheshwari, Neal, MBA, MS.....	MATH
Lonigro, Antonio, MA.....	ITAL/SPAN	Trpovski, Jovan, BAA.....	POLS	Matthews, Janice, MSBA.....	BUS
Lovelace, II, Robert, AS.....	EMT	Turnau, III, William, BS.....	CAD	Mazur, Brian, MBA.....	BUS
Madsen, James, MA.....	CJ	Viksne, Edgars G., MBA.....	BUS	McCulloch, Celia M., AAS.....	CGT
Marilley, David, MS.....	MATH	Vukmirovich, Sylvia, EdD.....	COUNS	McMahon, George, EdD.....	SOC
McAllister, Emily, MS.....	MATH	Wale, Jerry, MSEE.....	CIS/ELECT	Mercer, Sarah E., BS.....	CAP
McCartney, James, MA.....	BUS	Washka, Jack, MEd.....	PE	Moss, Frederick, MM.....	MUSIC
Meehan, George, MEd.....	MATH	Woods, Robert, MA.....	ENG/PHIL	Murphy, Susan, MBA.....	BUS/CIS/OIS
Melia, Nancy, BS.....	BIOL	Wroblewski, Veronica, MA.....	COLLS	Murray, Steven M., PhD.....	PSYCH
Mendenhall, Heather, BSN.....	NURS	Yee, Donald, MA.....	BUS	Musto, Samuel A., MA.....	CAP
Misiak, Christopher, BA.....	CAP/CHEM			Nanian, Marjorie, JD.....	POLS
Modlin, Russell, BSN.....	NURS			Ndukwe, Ernest, PhD.....	GEOG
Mogelnicki, Margaret, MA.....	CIS			Nicklaus, Ronald, MA.....	MATH
Monge, John, MSA.....	PA			Oxley, Robert, PhD.....	PHIL/POLS/SOC
Moucoulis, Ellen, MA.....	ART			Pearce, Robert F., MPA.....	COR/CJ
Moylan, Mark, MA.....	COMA			Peper, Karen, MSN.....	NATP/NURS
Nathan, John, PhD.....	ENG			Peters, Chris, AAS.....	BMET/COMPS

Pfaendtner, Jean, MSW CCD
 Pfannes, Daniel P., MA CJ/PA
 Phillips, Thelma, BSN NURS
 Puggini, Julie, MA COUNS/HDS
 Rainey, Anne, ME MATH
 Reed, Gary B., MS BIOL
 Reeds, Janet, MA ANTH/HIST
 Renas, Kim, MA MUSIC
 Rintz, Michael, MS, JD CM
 Rochon, Steven, MBA CAD
 Rogers, Jerry, MS BIOL
 Roney-Hays, Sandra, MA ANTH/SOC
 Rothstein, Barbara, MA FR/GER
 Scott, Todd, PhD CJ/HS
 Siegel, Marie C., BSN NURS
 Snyder, Jill CAP
 Spolsky, Susan, MSW PSYCH/SOC
 Steele, Ramona D., MA COLLS
 Swope, Michael, MA HIST
 Synpniewski, Matthew, MA ENG
 Tarachuk, Deborah Z., MA COMA/ENG
 Thomson, Anne R., MEd ENG
 VanOrnum, Scott, BM HUM/MUSIC
 Vitori, Karen, JD BUS
 Walker, Andrew FIRE
 Wlosinski, Raymond, BS FIRE
 Woodside, Kenneth, MS CHEM
 Yemets, Aleksandr K., MS MATH

ADJUNCT ASSISTANT PROFESSOR

(Min. 3 yrs. service & 100 points)

Arnold, Jacinta, MA ENG
 Augustinaitis, Maria, MA SPAN
 Bacon, Anthony, MEd ART/HUM
 Badry, Peter, MA BUS/ECON
 Beaford, Jr., Louis, MA POLS
 Billingsley, Suzanne, MSN NURS
 Brodowicz, Pamela J., MS BIOL
 Chaudhery, Malasri, MA PSYCH
 Chaudhery, Mitali, MA COLLS/ENG/HUM
 Chaudhery, Virinder, PhD HUM
 Cipparone, Christa, MA CAB/COLLS/ENG/ESL
 Connolly, Colleen M., MBA COMA
 Corral, Michael, MA MATH
 Coursey, Donald, MS BIOL
 Crowley-Harpenau, Patricia, MS BIOL
 Davis, Gary, MA MATH
 Donahue-Ebach, Patricia, MS PE
 Dowdy, Kristen, AAS CAP/CBPA
 Drake, Jonathan, DM HUM/MUSIC
 Edwards, Sharon, BSN NURS
 Eliasson, Jonene, MA FR
 Emert, Randall, AAS CAP
 Fedewa, David, MA PE
 Fitzpatrick, Kandance, BS HIT/MA

Frame, Kathleen, MA COMA
 Gildner, Douglas, BS FIRE
 Gillette, Carmela, MTESL ENG/ESL
 Ginsberg, Lorraine, MA MATH
 Glubzinski, Ann, MBA BUS
 Gorzenski, Leni, BSN NURS
 Gould, Rosemary, MEd MATH
 Gueorguiev, Emil A., MA MATH
 Gullede, Kira, BA SPAN
 Hallberg, Brenda L., AAS CAP/CBPA
 Hill, Clarice, MA COR
 Homsher, Ruth, PhD CHEM
 Hunt, Dennis, MA ECON
 Jannot, Kenneth, MA ENG
 Kairis, Tony, MA SOC
 Kallas, Jason, MA ENG
 Kheder, Niran, MA ENG/ESL
 Korri, Joy F., BSN NURS
 Kremer, Katherine, BA HIT
 Krueger, Richard, MSA BUS
 LeBlanc, Kayla S., MBA BUS
 Lewton, Kelli L. CAP
 Maheras, Nancy, BSN NURS
 Malafouris, Elaine, MS CCD
 Martin, James, MA PHIL/PSYCH
 Mathieson, Karen K., BSN NURS
 McGinnis, Jr., Donald, MA POLS
 McLane, Patricia, MA HIT
 Milnes, Charlotte, MA COLLS/MAS
 Mocon, Tracey, MA ENG
 Mott, Madeline, MSN NURS
 Mumm, Douglas CGT
 Munro, Joyce, MA ENG
 Nutter, Guy, BS CJ
 Paholsky, Kathleen, BA MAS
 Paton, Nancy, MEd ART/HUM
 Pavloff, Vickie EMT
 Pawlik, Patricia, MSN NURS
 Ponzi, CathyJo, MSA AHE
 Prusaitis, Laura, AAS EMT
 Robinson, Jeffrey, BA SRT
 Rosenbaum, Daniel, PhD PSYCH/SOC
 Roth, Diane, MA MATH
 Scott, Michelle, MA ENG
 Seippel, Steven, MS CAD
 Skrocki, Allan, MLS CJ/PA
 Smith, Dennis, MA MATH
 Smith, Janice, MEd COLLS/ESL
 Stegbauer, Katherine, BSN NURS
 Suter, Ronda, MS ACCT
 Tatsak, Jenny, MA COMA
 Thompson, Velonda, MS CIS
 Throneberry, Dale, MA COMA/HUM
 VanHellemont, Susan, MA ENG

Vaysman, Lyudmila, MS CHEM
 Veerasamy, Parmeswaree, ML FR/POLS
 Vescan, Ioana, MS PHYS
 Vinod, Roshin, MS BIOL
 Wallace, Sandra CAP
 Wauldron, Barry, BS GEOG
 Weinkauf, Richard, MS BIOL/CAP/CM
 White-Underwood, Robin, MS PSYCH
 Wimpari, Jr., Daniel L. CAD
 Wrone, Tamara, PhD BIOL
 Zorn, Lila K., MS ENG
 Zuccarini, Deborah, MA ART/CGT

Emeritus–Honoraire Employees

❖ = Deceased

Adams, Jon P. 1965–1973 ❖
Dean of Applied Sciences Emeritus
 Ahland, Virginia 1969–1991
Secretary Learning Resources Honoraire
 Allen, Kenneth M. 1965–1993
Biology Professor Emeritus
 Allison, Lea M. 1975–1998
OIS Associate Professor Emeritus
 Anderson, Roger 1968–2002
Biology Professor Emeritus
 Andrews, Elizabeth 1973–1989 ❖
Assistant Dean, CES Emeritus
 Arlen, Richard 1969–1994
Accounting Professor Emeritus
 Attalai, Peter 1964–1984 ❖
German, Spanish Professor Emeritus
 Balfour, Linda M. 1990–2010
Mathematics Professor Emeritus
 Baumgartner, William H. 1967–1986
Electronics Professor Emeritus
 Bedford, John P. 1964–1981 ❖
Geology Professor Emeritus
 Benson, Richard 1967–1993
Culinary Arts Professor Emeritus
 Berkaw, Molly 1988–2003
*Secretary to the Assistant Vice President
for Instruction Honoraire*
 Black, Agnes J. 1973–1992
Personnel Specialist Honoraire
 Black, J. Robert 1966–1992
Art Professor Emeritus
 Blazic, Carol S. 1992–2010
*Secretary III-Learning Support Services
Honoraire*
 Bloom, Bradley 1968–2001
Music Professor Emeritus
 Bloom, Stuart C. 1965–1996
History Professor Emeritus
 Bogarin, Russell 1965–1991
Registrar Emeritus
 Boisseau, Patricia K. 1992–2010
Coordinator-Testing Center Honoraire
 Bolcer, Eileen 1971–1995
Nursing Professor Emeritus
 Bowe, Stella 1986–2008
*Admissions and Enrollment Center
Office Assistant Honoraire*

- Boyce, Marilyn Joyce 1973–1994
Doc-U-Center Supervisor Honoraire
- Boye, Dale 1970–1995
Mathematics Professor Emeritus
- Bradner, Eric 1961–1971 ♦
President Emeritus
- Braun, Sharon 1992–2006
Director of Health, Fitness and Senior Adult Programs Emeritus
- Breithaupt, Robert L. 1966–1987
Assistant Dean of Culinary Arts Emeritus
- Burke, William 1967–2004
Political Science Professor Emeritus
- Burnell, John R. 1968–1998
Manufacturing Professor Emeritus
- Burnside, Robert 1967–1996
Counselor Professor Emeritus
- Butler, Patrick 1962–1984 ♦
Director of Library Emeritus
- Carleton, Midge 1970–2002
Associate Dean-Sciences Emeritus
- Castillo, Charles W. 1964–1985 ♦
Communication Arts Professor Emeritus
- Cavanaugh, Gerald 1969–2004
Related Trades Professor Emeritus
- Clack, Donna 1988–2004
Developmental Education Professor Emeritus
- Collins, Lois 1970–1993 ♦
Secretary to the Dean of Educational Services Honoraire
- Cook, Lowell T. 1967–1997
Business Professor Emeritus
- Cooley, Margot 1997–2007
Business Services Secretary Honoraire
- Cotton, Sharon A. 1980–2000 ♦
Accounting Professor Emeritus
- Covert, Christine 1965–1982
OIS Professor Emeritus
- Dagher, Joseph 1967–1988 ♦
English Professor Emeritus
- Dansby, Edwynna 1979–1994 ♦
Dean of College Centers Emeritus
- Diebel, Thaddeus E. 1973–1985
Dean of College Centers Emeritus
- Doinidis, Elgene 1988–2009
Director of College Centers Emeritus
- Doll, Rodman E. 1968–1997
Mathematics Professor Emeritus
- Dorsey, Juanita 1979–2010
Secretary III-Sciences Honoraire
- Drouillard, Clarence 1966–2004 ♦
Facilities Management Utility II Honoraire
- Dufort, Robert C. 1969–1999
Art Professor Emeritus
- Edmunds, Margaret 1991–2002
Continuing Education Office Assistant Honoraire
- Ellis, Midge B. 1974–1991
Coordinator of Special Events Honoraire
- Feenstra, Fernon 1964–2002
Associate Dean-Business and Technology Emeritus
- Ferrari, Dorothy E. 1982–1992
Personnel Specialist Honoraire
- Florek, Sandra P. 1969–1999
Dean of Marketing and Development Emeritus
- Foley, Maureen F. 1983–2000
Chemistry Professor Emeritus
- Gaitskill, Lawrence R. 1964–1985 ♦
Political Science Professor Emeritus
- Gans, Marvin 1964–2002
Assistant Dean, Continuing Education Services Emeritus
- Garrett, Evan 1968–2004
History Professor Emeritus
- Garritano, Rocco 1966–1991 ♦
Mathematics Professor Emeritus
- Geil, Barbara A. 1964–1995 ♦
Vice President for Student Services Emeritus
- Gibbons, II, Charles L. 1976–2005
Metallurgy Associate Professor Emeritus
- Gilbert, Betty J. 1986–2001
Executive Director of Human Resources Emeritus
- Gordon, Richard 1969–2004
English Professor Emeritus
- Green, Anne 1978–2002
Administrative Coordinator to the President Honoraire
- Greenwell, Diane F. 1978–2004
Accounts Receivable Associate Honoraire
- Griffith, Ronald 1971–2003
Assistant Vice President for Instruction Emeritus
- Gudan, Sirkka 1980–1998 ♦
Assistant Dean for Academic and Assessment Services Emeritus
- Hammond, Patsy R. 1970–1995
Nursing Professor Emeritus
- Harju, Debbie 1980–2002
Assistant to the Director of Enrollment Management Honoraire
- Hayes, Sylvia J. 1989–2009
Culinary Arts Marketing/Merchandising Specialist Honoraire
- Heinzman, David L. 1970–1986
Assistant Dean for Instruction Emeritus
- Heise, William R. 1969–1998 ♦
Counselor Professor Emeritus
- Hershoren, Gary 1967–1996
Counselor Professor Emeritus
- Hoffmann Jr., Walter O. 1964–2004
Psychology Professor Emeritus
- Holtzman, Roberta 1964–2004
Foreign Language Professor Emeritus
- Hulik, Kathleen 1996–2007
Public Relations/Media Coordinator Honoraire
- Hurick, Patricia 1990–2002
Counselor Professor Emeritus
- Huston, D. Louise 1964–1982 ♦
Director of Accounting, Payroll Honoraire
- Jawor, Mary 1964–1989
English Professor Emeritus
- Jones, Claren 1964–1979 ♦
Chemistry Professor Emeritus
- Joswiak, Fran 1992–2005
Executive Assistant Honoraire
- Kaplan, Suzanne 1964–2002
English Professor Emeritus
- Keene, Robert 1968–1979 ♦
Instructional Vice President Emeritus
- Kelley, Ralph B. 1964–1984 ♦
English Professor Emeritus
- Kelly, Cecilia 1964–1983 ♦
Art Professor Emeritus
- Kelly, Sandra L. 1976–2006 ♦
Counseling Secretary III Honoraire
- Kianfar, Mehdi 1967–1987 ♦
Political Science Professor Emeritus
- Kirkland, Jo Ann 1989–2000
Human Resources Operations Assistant Honoraire
- Kolenda, Janet 1971–2001 ♦
Nursing Professor Emeritus
- Kyriacopoulos, John 1965–1992
English Professor Emeritus
- LaBo, Holly 1987–2010
PE Attendant Honoraire
- Lao, Lincoln 1968–1999
Art Professor Emeritus
- Larkin, Virginia E. 1985–1998
Secretary to Associate Dean of College Centers Honoraire
- Lesko Jr., John S. 1969–2002
Physics Professor Emeritus
- Lichty-Mayes, Elizabeth F. 1967–1992
English Professor Emeritus
- Lindenberg, Arthur 1967–2002
English Professor Emeritus
- Lindner, W. Kenneth 1962–1987 ♦
Vice President for Business Services Emeritus
- Lockwood, J. Bryce 1964–1988 ♦
Physics Professor Emeritus
- Loehne, Joyce 1969–1986
Assistant to the Vice President for Business Services Honoraire
- 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
- McBride, Ronald 1974–2005
Electronics Professor Emeritus
- McDowell, Richard W. 1981–2001
President Emeritus
- McNally, Edward V. 1963–1981 ♦
Vice President for Student Affairs Emeritus
- Miller, Ralph 1966–1985 ♦
Geography Professor Emeritus
- Minock, Donna 1967–1996
English Professor Emeritus

- Moorhead, Rex K. 1968–1981 ♦
Mathematics Professor Emeritus
- Morand, Mary 1993–2010
Administrative Coordinator Honoraire
- Morgan, Harriet C. 1964–1990 ♦
Biology Professor Emeritus
- Munday, Janice M. 1991–2008
Transfer Coordinator Honoraire
- Munn, Wilson E. 1964–1995
Mathematics Professor Emeritus
- Munro, Gerald 1970–1996
Executive Director of Human Resources Emeritus
- Munro, Kenneth F. 1986–2006
Physical Education Attendant Honoraire
- Naslund, Raymond L. 1966–1985 ♦
Accounting Professor Emeritus
- Nathan, John G. 1975–2004
English Professor Emeritus
- Nickels, William G. 1968–2001
Chemistry Professor Emeritus
- Niergarth, Grover G. 1965–1990
Biology Professor Emeritus
- Nordman, Donna J. 1986–2010
Director of Counseling/Career Transfer Center 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'Sullivan, Jill F. 1982–2009
Vice President/Chief Financial Officer Emeritus
- O'Toole Jr., Michael A. 1964–1992
English Professor Emeritus
- Partyka, Patricia A. 1978–2010
OIS/CIS Professor Emeritus
- Pearce, Robert F. 1996–2010
Associate Dean of College Centers Emeritus
- Perkins, W. David 1964–1985
English Professor Emeritus
- Pike, Jean 1964–1997
Associate Dean of Students Emeritus
- Plemmons, Larry M. 1990–2010
Campus Security Police Officer Honoraire
- Pletcher, E. Rachel 1968–1983 ♦
Payroll Employee Honoraire
- Poupart, Oscar 1967–1992 ♦
CIS Professor Emeritus
- Powell, Mary S. 1966–2004
English Professor Emeritus
- Proffitt, Carol M. 1992–1999
Document and Layout Associate Honoraire
- Raby III, Adelard H. 1981–2001
Vice President for Business Services Emeritus
- Randall, Ronald 1969–2002
Registrar Emeritus
- Reibling, Louis A. 1980–2004 ♦
Vice President for Instruction Emeritus
- Richmond, Merle J. 1970–1999
Accounting Professor Emeritus
- Rief, Mary Jo H. 1987–2004
Administrative Assistant to the Vice President for Finance and Business Services Honoraire
- Rogowski, Ronald W. 1970–2001
Counselor Professor Emeritus
- Roncoli, Thomas C. 1967–1992
Physical Education Professor Emeritus
- Rosenberger, Roberta L. 1995–2010
Campus Security Police Officer Honoraire
- Rousseau, Clara M. 1962–1981
Administrative Assistant Honoraire
- Rudick, Lawrence W. 1964–1983 ♦
Communication Arts Professor Emeritus
- Rupp, Louis E. 1969–1988 ♦
Counselor Professor Emeritus
- Ryan, William A. 1964–1979 ♦
Geology Professor Emeritus
- Ryktarsyk, Donald 1964–2004
Business Professor Emeritus
- Ryktarsyk, Donna 1967–2003
Assistant Director-Financial Aid Honoraire
- Sampson, Dorothy 1967–1998
Nursing Professor Emeritus
- Sattig, Harriett H. 1963–1980
Director of Health Careers Emeritus
- Schaden, J. Robert 1993–2004
Philosophy Professor Emeritus
- Scharmen, Barbara D. 1991–2009
Administrative Assistant/Budget Coordinator Honoraire
- Scharmen, Larry L. 1985–2000
Biomedical Engineering Technology Professor Emeritus
- Schewe, Stephen J. 1972–2004
Physics Professor Emeritus
- Schneider, Janet 1989–2004
Librarian Emeritus
- Shon, Maybelle B. 1966–1983 ♦
Secretary to Dean of College Centers Honoraire
- Sipes, Delavan W. 1965–1987 ♦
Electronics Professor Emeritus
- Smith, Mary 1965–1988
Nursing Professor Emeritus
- Snyder, Edmund S. 1962–1974 ♦
Librarian Professor Emeritus
- Snyder, Gordon G. 1965–2000
Biology Professor Emeritus
- Springer, Sherry L. 1983–2009
Coordinator, Student Activities Honoraire
- Stec, Leonard 1966–1990
Culinary Arts Professor Emeritus
- Stefanski, Frederick 1966–1980
Instructional Dean Emeritus
- Steffen, Carolyn A. 1975–2010
Biology Professor Emeritus
- Stein, Joanne 1967–2002
English Professor Emeritus
- Sutherland, Roger A. 1964–1990
Biology Professor Emeritus
- Swanborg, Nancy K. 1989–2008
Director of Women's Resource Center Emeritus
- Sylvester, James 1967–1997
Counselor Professor Emeritus
- Sylvester, Luann K. 1995–2008
Programmer/Analyst Honoraire
- Szabo, Sharon F. 1981–2001
Computer Information Systems Professor Emeritus
- Tang, Kin Ling 1990–1999
Psychology Associate Professor Emeritus
- Tews, Carolyn H. 1977–1999
Mathematics Professor Emeritus
- Timte, Jacqueline 1994–2004
Secretary, Business Services Honoraire
- Titus, John L. 1997–2009
Counselor Assistant Professor Emeritus
- Tomalty, R. Elaine 1987–2001
Secretary for Women's Resource Center Honoraire
- Tomalty, Richard L. 1970–2000
Counselor Professor Emeritus
- Tomey, Carolyn S. 1991–2005
Registrar's Office Assistant Honoraire
- Tomey, John B. 1974–2005
Executive Vice President Emeritus
- Udrys, Janina 1973–2004
Mathematics Professor Emeritus
- Verlinich, Mary 1973–1989
Secretary for Financial Aid Honoraire
- Vukmirovich, Sylvia 1967–2001
Counselor Professor Emeritus
- Washka, Jack A. 1967–2004
Health and Physical Education Professor Emeritus
- Watson, Andrew C. 1964–1999 ♦
Chemistry Professor Emeritus
- Webber, John R. 1965–1993
Director of Counseling Emeritus
- Williams, Larry G. 1969–2006
Mathematics Professor Emeritus
- Wilson, Gordon 1968–2004
English Professor Emeritus
- Wilson, John M. 1965–1993
History Professor Emeritus
- Witten, Dorothy B. 1975–2001
Child Care Development Professor Emeritus
- Witten, John D. 1967–2001
Counselor Professor Emeritus
- Woltz, Phebe M. 1965–1982 ♦
Accounting Professor Emeritus
- Woodruff, Cecil 1970–2004
Health and Physical Education Professor Emeritus
- Worosz, Gregory J. 1969–2000
Business Professor Emeritus
- Wright, John E. 1974–2007
Director of Maintenance and Grounds Emeritus
- Yaremchuk, Patricia A. 1980–2005
Human Resources Specialist Honoraire
- Zande, Geraldine 1976–1997
Senior Buyer, Purchasing Honoraire

Advisory Committees

Accounting

Richard Berschback, CPA	Chair of Accounting, Walsh College, Troy
Douglas Luttenberger	Cash Director, Price Waterhouse Coopers, LLP, Detroit

Aviation

Doug Baker	Flight Attendant, Pinnacle Airlines, Northville
Marty Bopp	Director of Software Solutions, Advanced Purchasing Dynamics, Plymouth
Cheryl Bush	President, Aerodynamics, Inc., Waterford
E. Wayne Byrum	Chaplain, Canton Police Department, Canton
Carol Callan	FAA Team Program Manager, Federal Aviation Administration, Belleville
Randy Collier	Manager, Licensing & Enforcement Airports Division, Michigan Department of Transportation, Lansing
John Feldvary	Retired Captain, US Airways, Jackson
Amy Kienast Linderman	National Director of Business Relations, Michigan Institute of Aviation and Technology, Belleville
Matt LaFleur	Senior Airfield Manager, Wayne County Airport Authority, Detroit
Gale LaRoche, Esq.	Vice President of Human Resources, Wayne County Airport Authority, Detroit
Gregory Marion	Pilot, Spirit Airlines, Plymouth
Karl Randall	Manager of Aviation, Oakland County International Airport, Waterford
Clint Smith	Director, Delta Airlines, Inc., Detroit
Ken Szymanski	Deputy Director, Airfield Operations, Wayne County Airport Authority, Detroit
Loren Uthoff	Attorney, Rader Fishman Grauer, PLLC, Strongsville, Ohio
Andrew Zarras	Vice President of Customer Service/Operations, Delta Airlines, Inc., Detroit

Biomedical Engineering Technology

Jahan Azizi	Risk Management, University of Michigan, Ann Arbor
Tim Baron	Biomedical Engineering Technologist, University of Michigan, Ann Arbor
Jeff Blackburn	Field Engineer, National Instruments, Livonia
John Crissman	Biomedical Engineering Manager, Beaumont Services Company, Grosse Pointe
Darlene Delonis	Biomedical Engineering Tech CBET, Beaumont Services Company, LLC, Royal Oak
Ronald Edmonds	Manager Clinical Engineering, St. John Health, Madison Heights
Scott Fabijanski	Biomedical Engineering Technologist, William Beaumont Hospital, Royal Oak
Jane Focht	Senior Biomedical Electronic Technician, Beaumont Services Company, LLC, Royal Oak
Chris Peters	Certified Biomedical Engineering Technologist, University of Michigan, Ann Arbor

Child and Family Services

Jackie Beitz	Supervisor of School Age Child Care Program, Livonia Public Schools, Livonia
Ingrid Crepeau	Director/Owner of T.L.C. Preschool, Livonia
Suzanne Figurski	Retired, Early Childhood Consultant, Wyandotte
Cecelia Hutchinson	Instructor, Plymouth-Canton Community Schools, Canton
Peggy Nicholson	Early Childhood Educator, Program Alum, Wayne County Head Start, Westland
Mylon Reynolds	Education Coordinator, Wayne County Head Start, Westland
Patricia Sargent	Past President, Michigan Association for the Education of Young Children, Lincoln Park
Student Officer	Schoolcraft College Chapter Metro-Detroit Association for the Education of Young Children, Livonia
Mary Tomczyk, PhD	Associate Professor, Director of Child Development/Early Childhood Education, Madonna University, Livonia



Computer Graphics Technology

Sarah C. Abate	Media Division Manager, University of Michigan, Ann Arbor
Mark Erickson	Interface Designer, Ford Information Technology, Dearborn Heights
Tom Gainer	Lead Usability Specialist, Ford IT, Dearborn
Joel Milinsky	Distance Learning Consultant, Oakland Schools, Waterford
Martin Smith	Digital Artist, Goodby Silverstein & Partners, Detroit
Mary Timmons	Technology Instructor, West Bloomfield School District, West Bloomfield
Thanh Tran	President, H & T Medical Solutions, LLC, Novi
Scott Tykoski	Producer, Stardock Entertainment, Plymouth

Computer Information Systems

Joseph Bigos	Oracle Technical Architect, Jefferson Wells, Farmington Hills
Nancy Preece	Procurement and Production Systems Analyst, TACOM, Grosse Ile
Scott Wilson	Quality Assurance Analyst, MRM Worldwide, Grosse Pointe Park

Culinary Arts

Milos Cihelka	Master Chef, Retired, Bloomfield Hills
Randy Emert	Executive Chef, Henry Ford Health System, West Bloomfield
Ted Gillary	General Manager, Detroit Athletic Club, Detroit
Paul Grosz	Executive Chef, Cuisine, Detroit
William McIlroy	Executive Chef, MGM Grand Casino, Detroit
Patricia Nash	Executive Pastry Chef, Motor City Casino, Detroit
Leopold Schaeli	Master Chef, Retired, West Bloomfield

**Emergency Medical Technology**

William Dicks	Operations and Human Resource Manager, Concord EMS, Lincoln Park
Kevin Henderson	Fire Fighter/Paramedic I/C, Canton Fire Department, Canton
Lynne Osborne, MA, EMT, I/C	Manager of Workplace Programs, American Red Cross, Southeastern Michigan Chapter, Detroit
Dominic Perrotta, MD	Staff Emergency Physician, St. Joseph Mercy Hospital, Ann Arbor
Charlene Teeter, RN, BSN, EMT	Clinical Educator, Emergency Preparedness Coordinator, Oakwood Annapolis Hospital, Wayne
Tiffany Tscherne, RN	Emergency Department, Henry Ford, Wyandotte

Environmental Studies

John Foley	Owner, Stormwater Management Services, LLC, Walled Lake
Dr. Orin Gelderloos	Professor, Department of Natural Sciences, University of Michigan, Dearborn
Dr. Silverenia Kanoyton	Assistant Professor-Research, Wayne State University, Detroit
Cheryl Kehres-Dietrich, CGWP	Manager, Environmental Services, Soil and Materials Engineers, Plymouth
Jim Miller	Manager, GIS Department, Roth & Clark Inc., Hubbell
Eric Wallis, J.D., C.P.G.	Director, Groundwater Programs, Waste Management, Inc., Detroit
Dr. Yichun Xie	Director and Professor, Institute for Geospatial Research, Eastern Michigan University, Ypsilanti

Fire Technology—Continuing Education

James Allen	Chief, Northville Fire Department, Northville
Steven Heim	4th District Vice President, Michigan Professional Fire Fighters Union, Trenton
David Hiller	Director, Grosse Pointe Park Department of Public Safety, Grosse Pointe Park
Mark Hogrebe	Retired Chief, Allen Park Fire Department, Allen Park
Randall Layton	Retired Chief, Southgate Fire Department, Southgate
Alan Smolen	Retired Chief, Van Buren Fire Department, Van Buren
Keith Weisgerber	Training Coordinator, Michigan Fire Fighter's Training Council, Lansing
Shadd Whitehead	Chief, Livonia Fire Department, Livonia

Health Information Technology and Coding Specialist/Medical Transcription

Peggy Chapo	Registered Health Information Administrator, Botsford Hospital, Farmington Hills
Cindy DeRousie	Registered Health Information Administrator, St. Joseph Mercy Hospital, Ann Arbor
Karen Duke	Registered Health Information Technician, Retired, Livonia
Debi Gallico	Registered Health Information Technician, Detroit Medical Center/PHNS, Detroit
Cathy Gasiewicz	Registered Health Information Technician, Certified Coding Specialist, Physician-Based, Botsford Clinic System, Livonia
Nancy Klinkhammer	Registered Health Information Administrator, Beaumont Hospital, Royal Oak
Katherine Kremer	Registered Health Information Technician, Detroit Medical Center/PHNS, Detroit
Shirley Laszlo	Registered Health Information Technician, Quality Management Coordinator, Bridgeway Services, Southgate
Patricia McLane	Retired, Registered Health Information Administrator, Northville
Diane Repshinka	Registered Health Information Technician, University of Michigan, Ann Arbor
Jodie Swan	Registered Health Information Technician, St. Joseph Mercy Hospital, Ann Arbor
Kathy Taylor	Registered Health Information Administrator, Nuance, Inc., Burlington, Massachusetts
Shirley Wise	Registered Health Information Administrator, Specialty Hospital, Pontiac

Law Enforcement Continuing Education, Homeland Security & Criminal Justice

Darnell Blackburn	Field Representative, MCOLES, Lansing
Daniel Grant	Chief, Wyandotte Police Department, Wyandotte
Bob Muery	Chief, Garden City Police Department, Garden City
Alan Ramsden	Chief, Westland Police Department, Westland
Jason Wright	Chief, Wayne Police Department, Wayne
Gerald Zapolnik	Chief Operating Officer, Huron Valley Ambulance Services, Ann Arbor

Learning Support Services

Michael Bender	Director of Secondary Education, Plymouth-Canton Community Schools, Plymouth
Bob Boshoven	Teacher, Northville Public Schools, Northville
Michelle Brunsch	Counselor, Plymouth-Canton Community Schools, Canton
Lisa Dugganne	Transition and Work Study Coordinator, Special Education, Plymouth-Canton Community Schools, Canton

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Marilyn Friebe

Jim Gibbons

Cathleen Ingram

Bridget Kocurek

Barbara Lehmann

King T. Nelson

Jackie Parks

Diana Patterson

Jan Purtell

Leonard Rezmierski, PhD

Bill Sherb

Cynthia Swift

Jan Tomlinson

Ida Turpin

Lisa Wilson

Lori Wozniak

Manufacturing

Thomas Miller

Floyd Peterson

Massage Therapy

Ellen Faber

Claire Kona

Cindy McLaughlin, NCTMB

Board of Education, Plymouth-Canton Community Schools, Plymouth

Counselor, Livonia Public Schools, Livonia

Assistant Principal, Livonia Public Schools, Livonia

Counselor, Livonia Public Schools, Livonia

Counselor, Plymouth-Canton Community Schools, Canton

Counselor, Plymouth-Canton Community Schools, Canton

Rehabilitation Counselor, Michigan Commission for the Blind, Detroit

English Instructor, Livonia Public Schools, Livonia

Assistant Principal, Northville Public Schools, Northville

Partnerships Facilitator, Northville Public Schools, Northville

Superintendent of Schools, Northville Public Schools, Northville

Coordinator of Online Programs and Statewide Liaison, Livonia Public Schools, Livonia

Assistant Superintendent for Instructional Services, Plymouth-Canton Community Schools, Plymouth

Director, Upward Bound, Wayne Westland Community Schools, Wayne

Counselor, Walled Lake Consolidated Schools, Walled Lake

Counselor, Livonia Public Schools, Livonia

Counselor, Livonia Public Schools, Livonia

Technical Representative, Ford Motor Company, Livonia

President, Ecco Tool, Novi

Nationally Certified Clinical Massage Therapist, St. Joseph Mercy Hospital, Ann Arbor

Business Consultant, CK Business Development, LLC, Birmingham

Owner, Essential Massage and Wellness Center, Highland

Medical Assisting

Cathy Gasieicz, RHIT	Certified Coding Specialist, Physician-Based, Botsford Clinic System, Livonia
Rena Gizick	Clinical Manager, Amerigard Development Corporation, Garden City
Diane Hoffman	Certified Medical Assistant, Tri-County Pain Consultants, Farmington Hills
Gregory Monroe	Doctor of Osteopathy, Garden City Hospital, Garden City
Char Sobieski	Consultant, Dearborn

Metallurgy

Robert Dines	AWS Certified Weld Inspector and Educator, United Technical, LLC, Ann Arbor
John Finch	Associate Principle Engineer, Masco Corporation, Taylor
Dr. Nicholas J. Gianaris, PhD, PE, FASM	Senior Engineer Specialist, General Dynamics Land Systems, Sterling Heights
Craig Peterson	President, CAP Technology, Inc./Dagger Tools, Wixom
Paul Villemonte	Engineer-(Metals/Materials) Nissan Body Design Group, Nissan Technical Center North America, Inc., Howell

Nursing Career Ladder Curriculum

Peggy Comstock	RN Degree Completion Coordinator, Madonna University, Livonia
Kathy Herman	RN Director of Nursing, Marywood Nursing Care, Livonia
Mary Ann Lynch, BSN, RN-BC	Nursing Educator Program Manager, Children's Hospital of Michigan, Detroit
Karen Piotrowski, RN, MSN	Nursing Director, St. Mary Hospital, Livonia
Sandra Schmitt, RN, BSN	Nurse Development Specialist, Oakwood Hospital, Dearborn
Sandra Tobar, RN	Director of Nursing Education and Performance Improvement, Providence Hospital, Southfield
Peggy Vandenhemel, RN, MSN	Nurse Educator, Providence Hospital, Southfield

Office Information Systems

Nancy Cesarz	Manager of Network Systems, Awrey Bakeries, Livonia
Patricia Partyka	Retired Professor, Schoolcraft College, Prudenville
Pamela Stopper, CPS/CAP	Senior Administrative Assistant, Soil and Materials Engineers, Inc., Plymouth

Piano Teacher Certificate Program

Debbie Cox	Auditor, Metropolitan Detroit Musicians League, Detroit
Jean Derian	President, Livonia Area Piano Teachers Forum, Livonia
Alex Hanway	Vice President, Hammell Music, Commerce Township
Marilyn Sluka	Past President, Michigan Music Teachers Association, Livonia
Nancy Whitecar	Past Vice President, Livonia Area Piano Teachers Forum, Livonia

Sound Recording Technology

Jason Corey	Assistant Professor, Performing Arts Technology, School of Music, University of Michigan, Ann Arbor
Tom Court	Director, Music Technology School of Music, Wayne State University, Detroit
Ben W. Ferguson	CEO, President of Chase Creative Unlimited, Inc., Plymouth
David Lau	Owner, Brookwood Studio, Inc., Plymouth
Eric Morgeson	President, Studio A Recording, Inc., Dearborn Heights

Wayne County Regional Police Academy

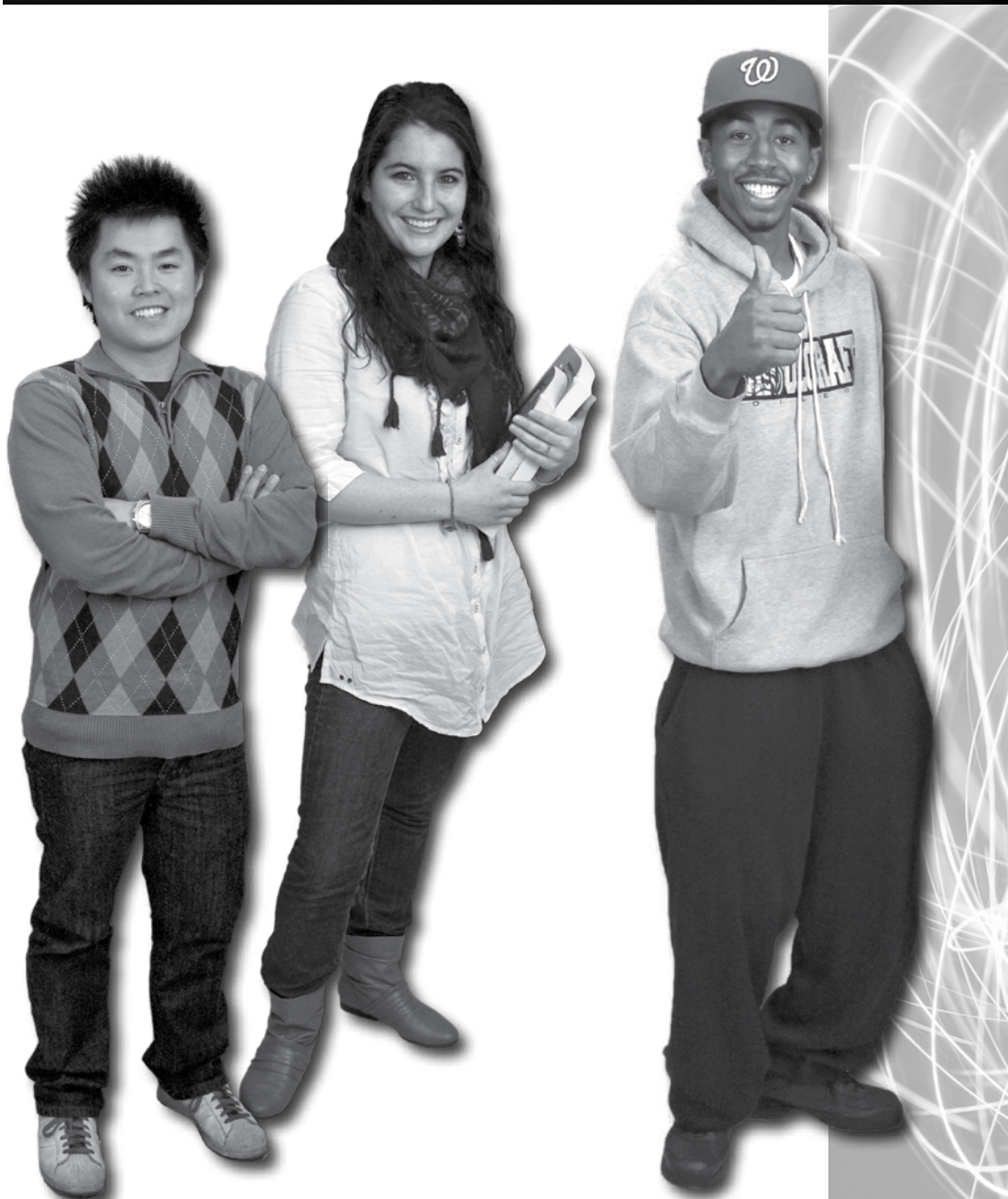
James Buford	Director of Homeland Security, County of Wayne, Detroit
Lee Gavin	Chief, Dearborn Heights Police Department, Dearborn Heights
Daniel Grant	Chief, Wyandotte Police Department, Wyandotte
Larry Hall	Deputy Chief, Wayne County Sheriff, Belleville
David Hiller	Director, Grosse Pointe Park Department of Public Safety, Grosse Pointe Park
Dan Pfannes	Undersheriff, Wayne County Sheriff, Detroit
James Sclater	Director, Brownstown Township Police Department, Brownstown Township
Robert Stevenson	Chief, Livonia Police Department, Livonia
Kym Worthy	Prosecutor, County of Wayne

Welding

Susan Anderson	OEM Business Development Manager, Smith Equipment, Jackson
Mike Bennett	Account Manager, Sales Representative, Airgas Great Lakes, Plymouth

DISCOVER

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Schoolcraft
College

Catalog Index

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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 the 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 734-462-4436. El colegio universitario de Schoolcraft asegura que la falta de habilidad en inglés no será impedimento para personas que quieran ingresar.

About this Catalog

Schoolcraft College has published this Catalog for information purposes only and its contents do not constitute a contract between this institution and prospective or enrolled students.

The information contained in this general College Catalog reflects the current curricula, policies and regulations of the college. However, these are subject to change at any time by action of the Board of Trustees or the administration.

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

Produced by the Marketing Department

In cooperation with Student Services and the Office of Instruction.



DISCOVER Schoolcraft

ONLINE ADMISSION INSTRUCTIONS

Applying online is fast and easy.

Just follow the directions below and you will be on your way to becoming a student at Schoolcraft College. Your social security number is required to apply online.

- 1** Go to the Schoolcraft Web site, www.schoolcraft.edu.
- 2** Select “Online Application,” which can be found on the upper left-hand side of the home page.
- 3** Complete the “Application for Admission” form.
- 4** Check the box at the bottom of the page to activate your electronic signature. Select “Submit.”

Need assistance?

If you require assistance or do not have access to a computer, please call the Admissions and Enrollment Center at 734-462-4426.

Congratulations!

You have completed the first step in becoming a student at Schoolcraft College. Within the next week you will receive your acceptance letter in the mail. Please keep this letter as it will contain your student number, which you will need to do just about everything at Schoolcraft.



Schoolcraft College

Application for Admission

Assigned Student Number

✓ Applications are accepted throughout the year

Return your completed application to the Admissions and Enrollment Center

Schoolcraft College
18600 Haggerty Road
Livonia, Michigan 48152-2696

OR apply online at www.schoolcraft.edu

When do you plan to start school? (year)

- ☐ Summer Session (July–August) ☐ Winter Semester (January–April)
☐ Fall Semester (August–December) ☐ Spring Session (May–June)

1. NAME (Please use your name as it appears on your Social Security Card. If you do not have a Social Security Card, use your legal name.)

Last (Family Name)	First	Middle
Former Name	Former Name	

2. ADDRESS

Number and Street	PO Box or Apartment Number
City	State Zip Code

3. TELEPHONE

Home	Cell

4. E-MAIL

Your social security number and date of birth are used for identification purposes. The information in items 7, 8, 9 and 10 is used to fulfill federal and state reporting requirements and is not used to determine admission to Schoolcraft College.

5. SOCIAL SECURITY NUMBER

6. DATE OF BIRTH

M	M	D	D	Y	Y

7. GENDER

- ☐ Female
☐ Male

8. ETHNICITY Are you Hispanic? ☐ Yes ☐ No

9. RACE

Please select one or more: ☐ White ☐ Black or African American ☐ Native Hawaiian or Other Pacific Islander
☐ Asian ☐ American Indian or Alaska Native

10. CITIZENSHIP Are you a US citizen? ☐ Yes ☐ No

If Non-US, indicate your status below and provide requested information.

☐ Permanent Resident — Resident Alien Number
☐ Refugee
☐ Visa Type
 Home Country

11. PROGRAM OF STUDY (A program code is required and can be changed at any time. See pages 26–28 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 Last Attended	
City	State if non-US, country
Please choose one: ☐ High School graduation date or anticipated graduation date: (month and year) ☐ GED completion or anticipated GED completion date: (month and year) ☐ No High School Diploma or GED	

List all colleges previously attended; list most recent first. Check the appropriate degree earned.
If you did not earn a degree, indicate the number of credit hours earned.

College/University	Degree Earned:	☐ Associate ☐ Bachelor's ☐ Master's ☐ PhD ☐ No Degree	Number of credit hours
City	State	if non-US, Country	

College/University	Degree Earned:	☐ Associate ☐ Bachelor's ☐ Master's ☐ PhD ☐ No Degree	Number of credit hours
City	State	if non-US, Country	

College/University	Degree Earned:	☐ Associate ☐ Bachelor's ☐ Master's ☐ PhD ☐ No Degree	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 information on special accommodations for a disability, please contact the Equal Access Counselor at 734-462-4421.

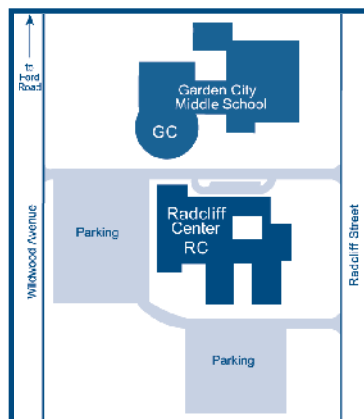
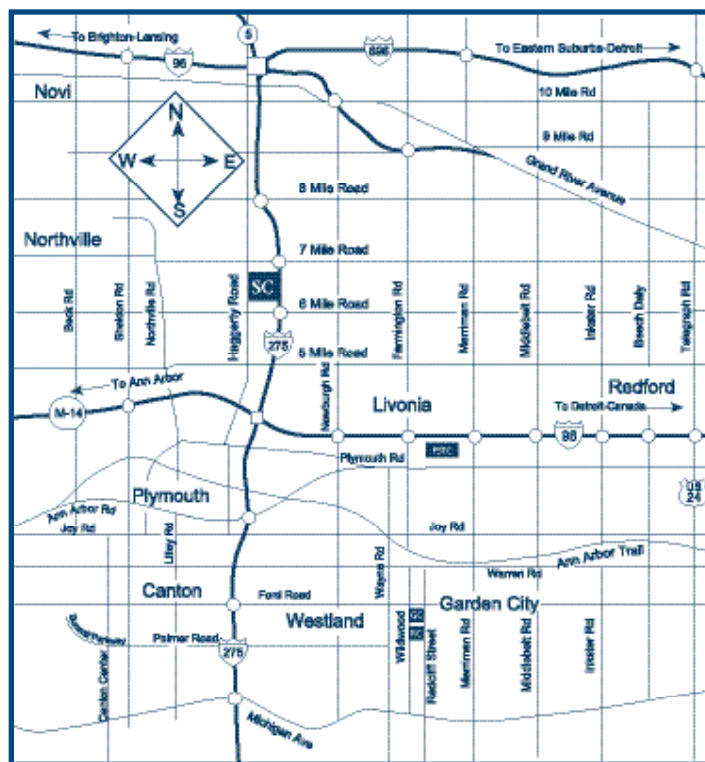
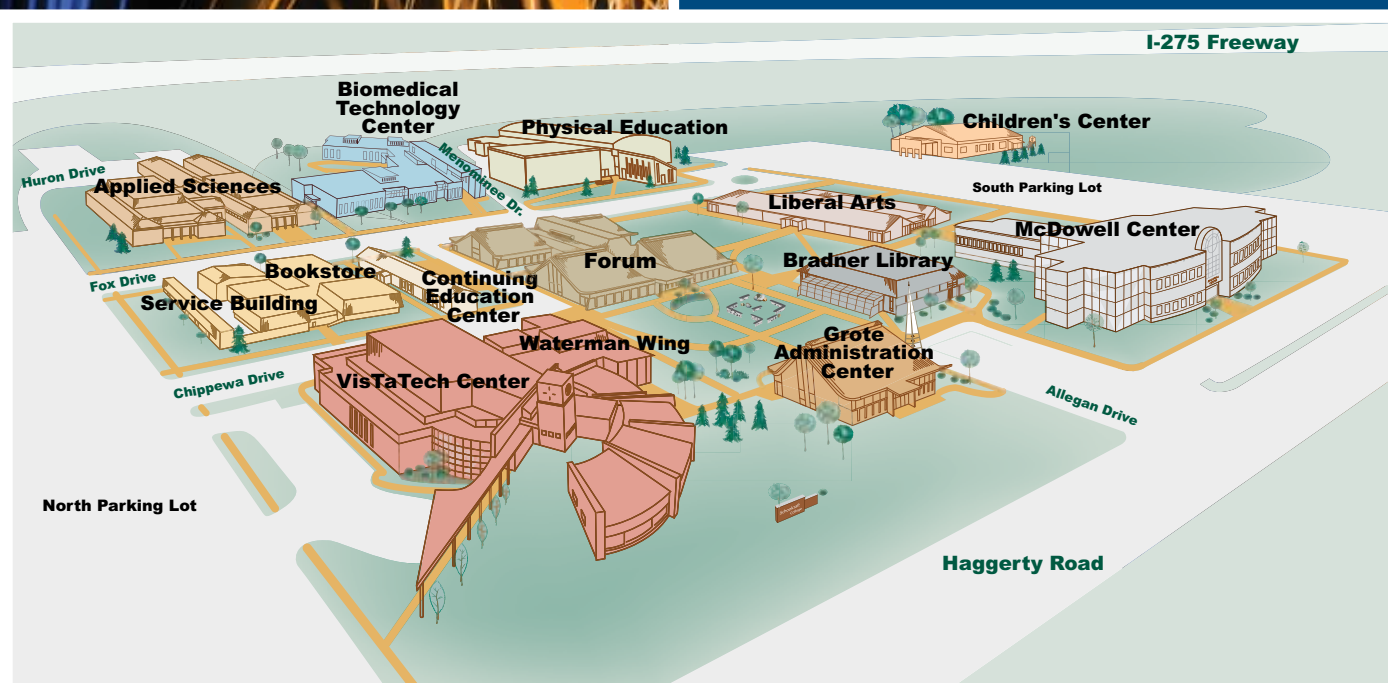
Signature of Applicant _____ Date of Application _____

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

The Annual Security Report is available at www.schoolcraft.edu/cleryact or a copy may be obtained from the Campus Security Police Department.

Admissions and Enrollment Center
Schoolcraft College
18600 Haggerty Road
Livonia, MI 48152-2696
Phone: 734-462-4426
Fax: 734-462-4553

Campus & Area Maps



Garden City Campus (RC/GC)

Radcliff Center
1751 Radcliff Street
Garden City, MI 48135
734-462-4770

Dean of College Centers
 Assistant Dean, College Centers
 Allied Health Programs
 Emergency Medical Technology
 Fire Academy
 Library
 Massage Therapy Program
 Police Academy

Livonia Campus (SC)

18600 Haggerty Road
Livonia, MI 48152-2696
734-462-4400

Applied Sciences Building

Associate Dean,
 Business, Technology, and
 Economic Development
 Business Programs
 Classrooms
 Computer Graphics Technology
 Computer Programs
 Dean of Occupational Programs and
 Economic Development
 Nursing
 Technology Programs

Biomedical Technology Center

Classrooms
 Learning Theatre
 Open Entry/Open Exit Lab
 Science Programs
 Technology Programs

Bookstore

Bradner Library
 Archives
 Learning Assistance Center

Continuing Education Center

Children's Center

Forum Building

Art Programs
 Assistant Dean, Sciences
 Classrooms
 Forum Recital Hall
 Music Programs
 Science Programs

Grote Administration Center

Human Resources
 Institutional Research
 Marketing Department
 Office of the President
 Open Entry/Open Exit Office

Liberal Arts Building

Classrooms
 Dean of Liberal Arts & Sciences
 Liberal Arts Programs
 Liberal Arts Theatre

McDowell Center

Admissions and Enrollment Center
 Career and Transfer Center
 Cashier
 Classrooms
 Computer Labs
 Counseling Center
 Dean of Student Services
 Distance Learning
 Finance and Business Services
 Financial Aid
 Office of Instruction
 Purchasing
 Student Accounts
 Student Recruitment and Records
 Testing Center
 Transition Center
 Vice President of Instruction

Physical Education Building

Service Building

Campus Security Police
 Facilities Management
 Lost and Found

VisTaTech Center

American Harvest Restaurant
 Business Development Center
 Classrooms
 Culinary Arts Program
 Development and
 Governmental Relations
 Grants
 Main Street Cafe
 Schoolcraft Foundation

Waterman Wing

Food Services
 Henry's Food Court
 Meeting Rooms
 Recreational Areas
 Student Activities
 Student Clubs
 Study Area

Public Safety Training Complex (PSTC)

31777 Industrial Road
Livonia, MI 48150
734-266-4639



18600 Haggerty Road Livonia, MI 48152-2696
734-462-4400
www.schoolcraft.edu



Schoolcraft
College