## LAKE MICHIGAN C O L L $\quad$ L $\quad$ G

 4
## sncilotoy 2009-2010 Anian College Catalog



# 2009-2010 Lake Michigan College Catalog 

Napier Avenue Campus

2755 East Napier Avenue
Benton Harbor, MI 49022, (269) 927-8100


M-TEC ${ }^{\text {SM }}$ at Lake Michigan College
400 Klock Road
Benton Harbor, MI 49022, (269) 926-6832


Bertrand Crossing Campus

1905 Foundation Drive
Niles, MI 49120, (269) 695-1391


South Haven Campus
125 Veterans Boulevard
South Haven, MI 49090, (269) 637-7500


## Lake Michigan College Mission \& Values Mission

The philosophy of Lake Michigan College, an institution of higher education, is founded on the belief that education is for all who wish to develop their potential. It is fundamental that a community college assist in meeting the educational, career, cultural, wellness and recreational needs of the community it serves. This involves a five-fold obligation:

- to provide for the educational aspirations, needs and learning expectations of the individual and the community;
- to provide for the occupational needs and desires of the learner and the community;
- to provide for the cultural interests and the wellness and recreational needs of the individual, and thus contribute to the development of effective citizens;
- to provide an assurance of quality in programs and in people;
- to develop an international perspective that prepares students, and develop employees and community members for a world economy and global citizenship.


## Values

How Lake Michigan College accomplishes its mission is as important as the mission itself. Fundamental to success for the College are certain basic values:

- Excellence

Every College program and service must be of the highest quality.

- Student-Centered/Customer-Focused

Lake Michigan College must know and understand its students and community.

- Responsive

Programs and services must respond to the needs of students and the community, with constant review, analysis, research and action.

- Diversity

The College should strive to create a diverse community that represents all segments of society, including women, ethnic -minorities and people with disabilities, in its student body, faculty and staff.

- Caring

The campus atmosphere should promote caring for one another as colleagues, including recognition of faculty and staff for exceptional performance, open and honest communication, shared planning, participative management, encouragement of responsible and creative risk-taking, and provisions for professional development. This atmosphere must extend to students and the community.

## Lake Michigan College



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President

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## Semester Calendars

## Summer 2009

June $29 \quad$ Classes begin at 7:00 am
July 2 Last Day to Add Classes
Last Day to Drop w/ 100\% Refund
July 3-4 Holiday - College Closed
July 31 Last Day to Withdraw No Refund
Aug 14 Classes End at 5:00 pm

## Fall 2009

Sept 2-4 Faculty Opening Days
Sept $8 \quad$ Classes Begin at 7:00 am
Sept 15 Last Day to Add Classes
Sept 22 Last Day to Drop w/ 100\% Refund
Nov 25 Clinicals -No Classes - College Closed
Nov 26-29 Thanksgiving Holiday-College Closed
Dec $20 \quad$ Classes end at 5:00 pm
Dec 25-Jan 1 Winter Break - College Closed

## Winter 2010

Jan 6-8 Faculty Opening Days
Jan $11 \quad$ Classes Begin at 7:00 am
Jan 18 Martin Luther King Day - No Classes
Jan 19 Last Day to Add Classes
Jan 26 Last Day to Drop w/ 100\% Refund
Feb 18 Professional Dev. Day - No Classes
Mar 1-6 Spring Break - No Classes
Apr 2-4 Recess - College Closed
May $1 \quad$ Classes End at 5:00 pm
May 2 Commencement at 2:00 pm

## Spring 2010

May $10 \quad$ Classes Begin at 7:00 am
May 13 Last Day to Add Classes Last Day to Drop w/ 100\% Refund
May 31 Memorial Day - College Closed
June $25 \quad$ Classes End at 5:00 pm
Bertrand Crossing Campus Spring 2010
June $7 \quad$ Classes Begin at 7:00 am
June 10 Last Day to Add Classes Last Day to Drop w/ 100\% Refund
July $5 \quad$ Holiday - College Closed
Aug 13 Classes End at 5:00 pm

## Summer 2010

June $28 \quad$ Classes begin at 7:00 am
July 5 Independence Day - College Closed
July $6 \quad$ Last Day to Add Classes Last Day to Drop w/ 100\% Refund
Aug 13
Classes End at 5:00 pm

## Fall 2010

Sept 1-3 Faculty Opening Days
Sept $7 \quad$ Classes Begin at 7:00 am
Sept 14 Last Day to Add Classes
Sept 21 Last Day to Drop w/ 100\% Refund
Nov 24 Clinicals -No Classes - College Closed
Nov 25-28 Thanksgiving Holiday - College Closed
Dec 19 Classes end at 5:00 pm
Dec 24-Jan 1 Winter Break - College Closed

## Winter 2011

Jan 5-7 Faculty Opening Days
Jan $10 \quad$ Classes Begin at 7:00 am
Jan 17 Martin Luther King Day - No Classes
Jan 18 Last Day to Add Classes
Jan 24 Last Day to Drop w/ 100\% Refund
Feb 17 Professional Dev. Day - No Classes
Feb 28-Mar 5 Spring Break - No Classes
Apr 22-24 Recess - College Closed
Apr 30 Classes End at 5:00 pm
May $1 \quad$ Commencement at 2:00 pm

## Spring 2011

May $9 \quad$ Classes Begin at 7:00 am
May 12 Last Day to Add Classes Last Day to Drop w/ 100\% Refund
May $30 \quad$ Memorial Day - College Closed
June 24 Classes End at 5:00 pm

## Bertrand Crossing Campus Spring 2011

## June 6 <br> Classes Begin at 7:00 am

June 16 Last Day to Add Classes Last Day to Drop w/ 100\% Refund
July $4 \quad$ Holiday - College Closed
Aug 12 Classes End at 5:00 pm

## Where to Find It

AdmssionsNapier Avenue Campus269-927-8626
Location: D20

## Advising

Career and academic advising, scheduling, transfer advising, personal advising as itrelates to educational goals and objectives
Napier Avenue Campus ..... 269-927-8128
Location: Richard J. Pappas Student Services Center
Hours: M-Th 9 a.m. - 7 p.m., F 9 a.m. - 4 p.m. by appointmentBertrand Crossing Campus269-695-1391
Location: Student Services
Hours: M-Th 9 a.m. - 7 p.m., F 9 a.m. -4 p.m. by appointment
South Haven Campus ..... 269-637-7500
Location: Student Services area
Hours: M-Th 9 a.m. - 7 p.m., F 9 a.m. - 4 p.m. by appointment
Alumni Association
Alumni events and awards
Napier Avenue Campus ..... 269-927-6849
Location: Room A313
Apprentice Training
M-TEC ${ }^{\text {SM }}$ at Lake Michigan College269-926-2136
Location: Room MT101
Arts \& Sciences
Napier Avenue Campus ..... 269-927-8100 ext. 5170
Location: Room C222
Assessment
Napier Avenue CampusLocation: Room B200
Hours: M9 a.m. -1 p.m. \& 5-8 p.m., T 9 a.m. -5 p.m., W 9 a.m. -1 p.m. \&
5-8 p.m., Th 1 - 8 p.m., F 11 a.m. -3 p.m.Hours are subject to change
Bertrand Crossing Campus269-695-1391
Location: Student Services
Hours: Computerized assessment testing
M-Th 8 a.m. - 6 p.m., F 8 a.m. - 2 p.m.
Paper \& pencil assessment testing and Health Science testingby appointment
South Haven Campus269-637-7500
Location: Student Services area
Hours: M-Th 8 a.m. - 7 p.m., F 8 a.m. -3 p.m.
Athletics
Intercollegiate sports
Napier Avenue Campus

$$
.269-927-8100 \text { ext. } 5160
$$

Location: Room D103
Bertrand Crossing Campus
1905 Foundation Drive, Niles, MI 49120 ..269-695-1391
Hours: Fall \& Winter M-Th 8 a.m. - 8:30 p.m., F 8 a.m. -4 p.m.Spring \& Summer - Hours may vary. Please call office for confirmation

## Bookstore

Napier Avenue Campus ...............................................................269-927-6713
Location: S121
Fall \& Winter Hours: M-Th 8:30 a.m. - 6:30 p.m., F 8:30 a.m. - 1:30 p.m.
Sat/Sun - closed
Spring \& Summer Hours: M-Th 9 a.m. - 6:30 p.m., F 9 a.m. - 1 p.m.
Sat/Sun - closed
South Haven Campus .
269-637-7500 ext. 7123
Locations: Lobby
Hours: M-Th 9 a.m. - 6 p.m.; F 9 a.m. - 1:00; Sat/Sun Closed

## Business Office/Cashier

Napier Avenue Campus
.269-927-8610
Location: A207, Richard J. Pappas Student Services Center
Hours: M-F 8 a.m. - 5 p.m., extended hours during peak registration

## Career Services Center

Career counseling, occupation information, job search resources
Napier Avenue Campus ...............................................................269-927-6284
Location: A209, Richard J. Pappas Student Services Center
Hours: M-F 8 a.m. - 5 p.m., evenings by appointment
Bertrand Crossing Campus .............................................................269-695-1391
Location: Room 101
Hours: M-F, By appointment only
South Haven Campus ....................................................................269-637-7500
Location: Student Services Area
Hours: M-F by appointment only

## Career Education

Napier Avenue Campus 269-927-8100 ext. 5216
Location: Room C122

## Cashiers Office

Tuition payments, billings
Napier Avenue Campus .................................................................269-927-8610
Location: A207, Richard J. Pappas Student Services Center
Hours: M-F 8 a.m. -5 p.m.
Bertrand Crossing Campus ..............................................................269-695-1391
Location: Student Services
Hours: M-Th 8 a.m. - 7 p.m.; F 8 a.m. -4 p.m.
South Haven Campus.
.269-637-7500
Location: Student Services area
Hours: M-Th 7:30 a.m. - 9 p.m.; F 7:30 a.m. - 5 p.m.

## Child Care Center (Kidzone)

On-campus infant, pre-school, and child care for children between the ages of

## 2 weeks and 12 years of students, employees, and community members

Napier Avenue Campus.
.269-927-6293
Location: B-107
Hours: M-F 6 a.m. - 6 p.m., evening care available Fall and
Winter semesters 6 p.m. - 10 p.m., M-TH only
South Haven Campus.
.269-637-7501
Hours: M-F 6 a.m. - 6 p.m., evening care available Fall and
Winter semesters 6 p.m. - 10 p.m., M-TH only

## Community \& Business Services

Continuing education, computer training, customized industry training
$\mathrm{M}-$ TEC $^{\text {SM }}$ at Lake Michigan College .269-926-4296
Location: Room MT101

## Early College

Dual enrollment and direct credit opportunities for area high school students
Napier Avenue Campus
www.lakemichigancollege.e.........................e 1-800-252-1562

## Where to Find It

Educational Opportunity CenterAcademic, vocational, career advising, and enrollment services
Napier Avenue Campus

$\qquad$
269-927-8100 ext. 5031
Location. C20, Richard J.
Educational Talent Search
Assists Benton Harbor and Covert students graduate from high schooland enroll in the college of their choice
Napier Avenue Campus269-927-8100 ext. 5228
Location: Rooms L302a and L305, Richard J. Pappas Student Services CenterHours M-F 8 a.m. - 5 p.m.
Financial Aid
Financial aid, scholarships and work study
Napier Avenue CampusLocation: A202, Richard J. Pappas Student Services Center
Hours: M-F 8 a.m. - 5 p.m
Bertrand Crossing Campus ..... 269-695-1391
Location: Room 101Hours: M-Th 8 a.m. - 8:30 p.m.; F 8 a.m. -4 p.m.South Haven Campus269-637-7500
Location: Student Services
Hours: M-Th 7:30 a.m. - 9 p.m., F 7:30 a.m. - 5 p.m.
Honors Program
Honors courses and activities
Napier Avenue Campus ..... 269-927-8100 ext. 5172
Location: Room C222c
Human ResourcesNapier Avenue Campus269-927-8132
Location: A303
International Student Services
Napier Avenue Campus269-927-8100 ext. 5008
Location: A205, Richard J. Pappas Student Services CenterHours: M-F 8 a.m. - 4 p.m.
Learning Assistance Center
Tutoring services
Napier Avenue Campus269-927-8100 ext. 5169
Location: Room B202
Hours: M-Th 8 a.m. - 8 p.m., F 8 a.m. - 3 p.m., Sat. by appointment
Library - William Hessel Library
Napier Avenue Campus$.269-927-8605$
Location: Room 118-W
Fall \& Winter Hours: M-Th 8 a.m. -9 p.m., F 8 a.m. -4 p.m.,
Sat 10 a.m. - 2 p.m.
Spring \& Summer hours: M-Th 8 a.m. - 6:30 p.m., F 8 a.m. -4 p.m.
Interim: M-F 8 a.m. - 4 p.m.
Library web page: www.lakemichigancollege.edu/lib/
M-TEC ${ }^{\text {SM }}$ at Lake Michigan College
400 Klock Road, Benton Harbor, MI 49022$.269-926-6832$
Math Center
Napier Avenue Campus ..... 269-927-7097
Location: Room B208
Fall and Winter Hours: M 12:40-4 p.m. \& 6-8:10 p.m., T-Th 9:10 a.m. -4 p.m.
\& 6-9:10 p.m., F 9:10 a.m. - 12:30 p.m., Sat 8 a.m. - 12:20 p.m.
Spring and Summer Hours: M-Th 8 a.m. - 12:30 p.m. \& 6-8:10 p.m.
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Mendel Center for Arts \& Technology
Napier Avenue Campus. ..... 269-927-1000
Conference \& Event Services, Advanced Technology Center,
Grand Upton Hall, Hanson Theatre, and Mainstage
Mendel Mainstage Box Office
Tickets for Mainstage and student performance events Napier Avenue Campus ..... 269-927-1221
2755 E. Napier Avenue, Benton Harbor, MI 49022
Munchy's Café
Beverages, salads, soups, sandwiches
Napier Avenue Campus ..... 269-927-8100 ext. 5276
Location: First floor across from the Bookstore
Napier Avenue Campus
2755 E. Napier Avenue, Benton Harbor, MI 49022 ..... 269-927-8100
Program Information
Math, physical education ..... 269-927-8100 ext. 5070
Social studies, humanities, fine arts. 269-927-8100 ext. 5017
Nursing, Rad Tech, Dental Assisting ..... 269-927-8100 ext. 5090
Business, Computer Info Systems, Industrial Tech 269-927-8100 ext. 5044English.269-927-8100 ext. 5184
Transitional Studies 269-927-8100 ext. 5183
Humanities, Fine Arts 269-927-5100 ext. 5181
Science. 269-927-8100 ext. 5075

## Records Office

Student record information, name and address changes, transcripts, graduation audits and information, enrollment verification, admissions application processing Napier Avenue Campus

269-927-8107
Location: Room A222, Richard J. Pappas Student Services Center Hours: M-F 8 a.m. - 5 p.m.

## Registration

Napier Avenue Campus .269-927-8119
Location: Room A208, Richard J. Pappas Student Services Center Hours: M-F 7:30 a.m. - 5 p.m.
M-Th 5 - 9 p.m.; Sat 8:30 a.m. - 1 p.m........................................269-927-8128
Bertrand Crossing Campus .............................................................269-695-1391
Location: Student Services
Hours: M-Th 8 a.m. - 7 p.m., F 8 a.m. -4 p.m.
South Haven Campus.
.269-637-7500
Location: Student Services area
Hours: M-Th 8 a.m. -9 p.m., F 8 a.m. -5 p.m.

## Siena Heights at Lake Michigan College <br> Napier Avenue Campus <br> 269-927-6711 <br> Location: Room C204

## South Haven Campus

125 Veterans Boulevard, South Haven, MI 49090 269-637-7500
Hours: M-Th 7:30 a.m. - 9 p.m., F 7:30 a.m. - 5 p.m.

## Special Populations

Disability, single parent, displaced homemaker, non-traditional students, limited English proficiency
Napier Avenue Campus $\qquad$ 269-927-8100 ext. 5192
Location: Room C205, Richard J. Pappas Student Services Center
Hours: M-F 8 a.m. -5 p.m., evenings by appointment

## Where to Find It

## Student Life

Student activities, student government, student newspaper, Phi Theta Kappa
Napier Avenue Campus ................................................. 269-927-8100 ext. 5206
Location: D-103, next to the gym
Hours: M-F 8 a.m. -5 p.m.

## Student Support Services

Supportive services including TRIO compułer lab Napier Avenue Campus
Location: Room C207 $\qquad$ 269-927-8603
Hours: M-F 8 a.m. - 5 p.m., evenings by appointment
Website: www.lakemichigancollege.edu/ss/student_support

## Tours

Napier Avenue Campus
269-927-8100 ext. 5171
Bertrand Crossing Campus
.269-695-1391
M-TEC ${ }^{\text {SM }}$ at Lake Michigan College
269-926-6832
South Haven Campus
269-637-7500

## Transitional Studies

Academic tutoring, writing lab, math lab, reading lab
Napier Avenue Campus
269-927-8100 ext. 6560
Upward Bound
Assists Benton Harbor high school students to enter college
Napier Avenue Campus . $\qquad$
Location: Room C211, Richard J. Pappas Student Services Center
Hours: M-F 8 a.m. - 5 p.m.

## Veterans' Services

Napier Avenue Campus $\qquad$ 269-927-8100 ext. 5008 Location: Room A205, Richard J. Pappas Student Services Center Hours: M-F 8 a.m. - 4 p.m.

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## A Look at Lake Michigan



## College



Lake Michigan College is a two-year, comprehensive community college located in the southwest corner of Michigan, serving Berrien Countr, Covert Township and the South Haven School District in Van Buren County, and adjacent areas of Michigan and Indiana. Lake Michigan College is viewed as a source of education, a cultural center, a regional economic partner and a leader in diversity and innovation.

A diverse student body of over 7,000 credit and non-credit students creates a rich atmosphere of growth and challenging goals. Those who come to Lake Michigan College do so for a variety of reasons including:

- earning an associate's degree or career cerrificate
- gaining the first two years of a bachelor's degree
- learning new skills to start a new career
- improving job skills for career advancement
- personal interest

The College offers more than 100 associate degree and certificate programs. Courses are available at four sites operated by the College and through a number of off-campus locations throughout Berrien and Van Buren counties. More than 400 faculty and staff are employed by the College including over 200 full- and part-time faculty members.

## Lake Michigan College Indians

Lake Michigan College is very proud to have a Potawatomi Indian as its athletic logo.

During the middle of the 17th century, the early white settlers were introduced to the native Americans (Indians) in the states known today as Michigan, Indiana, Illinois, Ohio and Wisconsin. They met the Potawatomi Indians of the Algonquin speaking nation.

In 1830, the United States Congress passed the Indian Removal Act which stated that all American Indians living in the Great Lakes area must move west of the Mississippi River.

The Potawatomi were involved in the signing of 15 treaties with the United States government which encompassed 33 million acres of land in Michigan, Indiana, Illinois, Ohio and Wisconsin during the treaty period of 1795 to 1833.

The Treaty of Chicago signed by Leopold Pokagon in 1833 with the United States government allowed the membership of the Pokagon Band of Potawatomi to remain in southwestern Michigan.

Currently, there are approximately 1,500 members of the Pokagon Band Potawatomi living in Cass, Van Buren and Berrien counties.

## Places and Ways to Access Lake Michigan College

Napier Avenue Campus



Located in Benton Township, the campus features the Richard J. Pappas Student Services Center where you can complete all aspects of admissions, class registration, financial aid, advising, assessment, and career planning. At the Napier Avenue Campus, you also have access to services such as the Lake Michigan College Bookstore, the Kidzone Preschool and Child Care Center, multimedia library and classrooms, open computer labs, tutoring, student lounge and study areas, lecture halls and gymnasium.

The 263-acre campus features a lake, wooded areas, athletic fields, nature trails, jogging trails and lighted parking facilities. In the northwest part of the campus, there is a natural area containing more than one mile of nature trails maintained for your use. This area features a deciduous wood lot, marsh, pine plantation, successional field and tall grass prairie.

## The Mendel Center for Arts and Technology



Located on the Napier Avenue Campus, the Mendel Center for Arts and Technology is a regional cultural and conference center. It features the 1,550seat Mainstage performing arts auditorium, the 246 -seat Hanson Theatre, Louis and Frederick Upton Telecommunications Center, Executive Training Center and additional space for meetings, seminars, workshops, tradeshows and other events. Special facilities within the complex include lecture halls and banquet seating for 1,700 guests. Catering for all events is provided by the College's Conference and Event Services department located on campus.

## Bertrand Crossing Campus



The Bertrand Crossing Campus is a 34,600 -square-foot facility located on a twenty-acre site in the Bertrand Crossing Industrial Park and is easily accessed by U.S. Highways 12 and 31. Opened in 1998, the campus is a result of vigorous effort by the College, local business and community residents of south Berrien County and northwest Indiana. Many students use the Bertrand Crossing Campus as a bridge to four-year college and university programs.

As a student, you will have access to a broad range of services including academic counseling, skill assessment, job placement, financial aid information, and veteran services. Special features of the state-of-the art facility include a 10,000 square foot integrated laboratory for plastics production, machining, CNC, CAD/CAM and industrial maintenance; a dental assisting lab; and supporting facilities in biology and chemistry.

## Places and Ways to Access Lake Michigan College

## Lake Michigan College at South Haven



Opened in the fall of 2003, Lake Michigan College at South Haven features 12 general classrooms, wireless computer areas, an open computer lab, an on-campus childcare center, bookstore, two-way interactive classroom, two science labs, computerized graphic design lab and art room. Western Michigan University also occupies two classrooms, a computer lab and an office area in the facility.

Lake Michigan College students can take advantage of a wide selection of academic programs at the South Haven Campus including:

- Associate of Arts and Associates of Science degrees
- Pre-nursing
- Early Childhood Education
- Business Administration
- Graphic Design

Students benefit from a full-service setting with personalize attention and a close-knit campus atmosphere. Services include academic advising/counseling, admissions, assessment, English as a Second Language, financial services, registration, student employment, student life activities and tutoring.

## Michigan Technical Education Center ${ }^{\text {SM }}$ (M-TEC ${ }^{\text {SM }}$ ) at Lake Michigan College



Opened in the fall of 2000, $\mathrm{M}-$ TEC $^{\text {SM }}$ at Lake Michigan College is focused on the training needs of area industry and their current and potential employees. Programs offered in the 43,879 square foot facility provide high-wage, highskill, high-demand training with state of the art equipment in an industry-like facility in the areas of:

- Drafting \& Design - Machine Tool Technology
- Energy Production Technology
- Industrial Maintenance Technology
- Apprentice Training

M-TEC ${ }^{\text {SM }}$ at Lake Michigan College includes nine lab areas, each specially dedicated to a specific function including welding, machining, computer numerical control (CNC), computer aided design (CAD), hydraulics and pneumatics, programmable logic computers (PLC), and electronics. Attached to each lab is a separate classroom where theory in each area is taught in an atmosphere conducive to lecture and class participation.

## Off-Campus Classes

During the fall and winter semesters, Lake Michigan College offers credit courses at several off-campus sites throughout the region. These classes are offered day or evening and consist of the same course content and same high-level instruction found in classes held at the College's four sites. These classes apply toward the appropriate degrees offered by the College and also qualify for transfer credit to most four-year colleges and universities.


## Internet Courses

By utilizing Internet technology, you can take Lake Michigan College classes anywhere you have access to the Internet. You will do much of your work on the Internet, however, some courses you will need to come to campus a few times during the semester to complete lab work or take tests. Your course instructor is available to work with you through in-person appointments, by phone or by e-mail.

Classes are offered in conjunction with the Michigan Community College Virtual Learning Consortium (MCCVLC) and tuition rates follow those set by the Consortium. See the most recent class schedule for more information on tuition rates as well as computer system requirements.

Internet course text books may be purchased through the Lake Michigan College College Bookstore. Bookstore details are available in the most current class schedule.

## Telecourses

Telecourses allow you to take college credit courses in the convenience of your home. You check out DVDs or videotapes from the Lake Michigan College Bookstore to study at home or view the tapes in the College's William Hessel Library.

Just as in traditional courses, you will need to purchase textbooks, complete homework assignments, and take exams. You meet with your instructors to review coursework or you can contact them by phone or e-mail. Five visits to campus - an orientation and four exams - are required as a part of the courses. See the most recent class schedule for dates and times of on-campus requirements.

Traditional telecourses are completed during the normal 14 -week semester schedule in the fall and winter semesters and during the seven- or ten-week semesters during the spring and summer.

In addition to the regular Lake Michigan College tuition rates and fees, a telecourse fee will apply. For more information, contact the Telecourse Coordinator at (269) 927-8100 ext. 5003.

## Open Entry/Open Exit - OE/OE <br> Open entry/open exit courses are self-paced classes that allow you

 to fit class into your schedule. Please check the LMC website for more details.
# Accreditation \& Assurance of Quality 

## Accreditations

Lake Michigan College is accredited by The Higher Learning Commission and a member of the North Central Association.

The Higher Learning Commission of the North Central Association of Colleges and Schools 30 North LaSalle Street, Suite 2400
Chicago, Illinois 60602-2504
Telephone: (800) 621-7440
www.ncahlc.org
Other programs at Lake Michigan College are individually accredited by their governing boards. They include:

## - Associate's Degree Nursing program

Fully approved by the Michigan State Board of Nursing and is accredited by the National League for Nursing Accrediting Commission (NLNAC). The Michigan State Board of Nursing has approved the Practical Nursing certificate program. For information about this program from NLNAC you may contact them at 61 Broadway, New York, New York 10006 or by phone at 212-363-5555.

- Radiologic Technology Associate Degree program Accredited by the Joint Review Committee on Education in Radiologic Technology.


## - Dental Assisting program

Accredited by the Commission on Dental Accreditation of the American Dental Association and by the Michigan State Board of Dentistry.

Copies of these accreditations are available for review in the library on the Napier Avenue Campus or in the Office of the Executive Dean of Career and Technical Education, located on the Napier Avenue Campus.

## Assurance of Quality (AOQ)

## Transfer

Lake Michigan College assures students that any course on an appropriate Lake Michigan College Transfer Guide sheet will transfer to the bachelor's degree institution identified on that guide. To qualify, students must have:

1. Initiated their program of study after April 1988;
2. Completed the program of study as planned and agreed to by the student and the counselor or advisor;
3. Received at least a minimum grade of $C$ in the course(s) taken for transfer credit;
4. Met the admission requirements of the identified bachelor's degree institution;
5. Transferred to the identified bachelor's degree institution within one year after completion of the agreed upon program at Lake Michigan College.

## Career and Technical Programs

Lake Michigan College assures that the courses completed with a grade of " $\mathrm{C}^{\prime}$ " or better in an Associate in Applied Science, Associate in Applied Business, or Associate in Industrial Technology degree will provide entry-level skills needed for a particular occupation. To qualify, a student must have:

1. Initiated the program of study after April 1988 and complete within three years of initiation with a GPA of 2.0 or better;
2. Followed the official Lake Michigan College program guide sheet, dated 1987 or thereafter, for course selections;
3. Been employed full-time within one year of graduation.

NOTE: Some students may be employed while completing the requirements for an associate degree. The AOQ will apply if the position held at the time of graduation is compatible with the associate degree earned.

Retraining: If a student is subsequently judged by an employer to be lacking in technical job skills normally expected of an entry-level employee within the major, Lake Michigan College will provide further skill training for up to 16 semester credit hours within two academic years without additional charge for tuition or fees.

- In order to be eligible for retraining, the employment must be verified by the Career Center as being directly related to the graduate's program of study.
- The employer must provide written certification that the employee is lacking the entry-level job skills that are identified, in writing, at the time of initial employment, and must specify the area(s) of skill deficiency within 90 days of the graduate's initial employment.
- The employer, the graduate, and a college faculty advisor, with advice of appropriate teaching faculty, will develop an educational plan specifying up to 16 credit hours of retraining. Such courses must be those regularly offered by Lake Michigan College.
- The retraining courses will be limited to 16 hours of registration regardless of outcome.



## Becoming a Lake Michigan College Student

## Admission Policy

Lake Michigan College offers an "open door" admissions policy for individuals who are interested in and capable of benefiting from the post-secondary experiences. Admission to the College is open to:

- Any high school graduate or GED recipient, or
- Any person who is 18 years of age or older, or
- Any person who demonstrates Ability to Benefit on an approved College assessment instrument. For individuals who utilize the Ability to Benefit option for admissions who are under the age of 18, Provisional Admission will be offered until that individual's high school class has graduated.

Guest Student status will be granted to individuals who attend other colleges and universities upon completion of the Michigan Uniform Undergraduate Guest Application. Guest students may enroll in course work for which all stated pre-requisites have been met. The guest application must be submitted for every semester of course work.

If you are a high school junior or senior and want to take an LMC course for college credit, you must submit the appropriate documents. See your high school counselor or contact the Director of Early College at Lake Michigan College. After graduation, the student can apply for admission to LMC.

## Assessment

Lake Michigan College uses the assessment process to measure your skill level in reading, writing, and mathematics. It has no effect on your admission to the College. Certain levels of performance are necessary in these skill areas for success in college-level courses. College advisors use the results to help place you in the proper courses. There are several exemptions that allow you to opt out of the assessment process as listed in the Assessment \& Placement Policy below. The assessment is a free service of the College. A valid photo ID must be shown at time of test.

## Assessment \& Placement Policy

1. For course placement purposes, all students new to Lake Michigan College will be required to complete an assessment of writing, mathematics and reading skills prior to registration unless an exemption applied based on current procedure.
2. English, mathematics and reading basic skills prerequisites for College classes are listed in the course description section of the College catalog as E-English, M-Mathematics or R-Reading.
3. Students whose assessment scores do not meet or exceed levels set for $E, M, R$ prerequisites must successfully complete appropriate Transitional Studies courses prior to registration in courses with these prerequisites.

## Assessment and Placement Procedure

For course placement purposes, all students new to Lake Michigan College will be required to complete an assessment of writing, mathematics and reading skills prior to registration unless an exemption applies based on current procedure.

1. Students who will be exempt from assessment include:
a) Students who submit ACT or SAT scores at or above current qualifying levels for $E, M$, and $R$ prerequisites. Documentation of current qualifying levels will be maintained in the Assessment Center.
b) Students with an associate degree or higher, based on documentation.
c) Students with a minimum grade of " C " in the equivalent of a college-level freshman composition course and a college-level algebra course, based on documentation.
d) Students with documented transfer credit in college-level composition classes will be exempt from the reading and writing portions of the assessment. Those students with documented transfer credit in intermediate algebra will be exempt from the math portion of assessment
e) Students enrolling ONLY in courses with no prerequisites as printed in the current LMC College Catalog.
g) Students taking non-credit courses and courses for Continuing Education units (CEUs).
2. The initial assessment battery will be completed as a unit during a single administration.
3. Students may retake each portion (English, reading, mathematics) of the assessment battery once.
4. Returning students who have not enrolled for five consecutive years must take the assessment.
5. Upon request, students with disabilities with documentation on file in the Office of Special Populations, will be provided special testing accommodations.

Note: Additional assessment is required for Health Science applicants.

## English as a Second Language

All incoming students, including those who speak English as a second language (ESL) are assessed relative to reading, writing, and mathematics skills. Lake Michigan College is aware that assessment instruments designed for students whose first language is English do not adequately assess the skills of ESL students. Therefore, ESL students will be assessed for English language proficiency using a test of English Language. ESL students are required to take the ESL assessment and to take appropriate courses based on those scores.

Non-native speakers of English and graduates of high schools outside of the United States must take the ESL Assessment unless they can present proof of a TOEFL score $>500$ for the paper test, or 7173 for the computer version at the time of their initial registration.

Questions regarding Assessment for ESL students should be directed to the Transitional Studies department at 927-8100, ext. 5183.

# Credit for Prior Education, Advanced Testing, and Workplace Experience 

## College Board Advanced Placement Program <br> Lake Michigan College recognizes the College Board Advanced

 Placement Program (APP). College course credit may be granted if you have participated in the APP through your high school. For advanced placement consideration, you must pass the Advanced Placement examinations with a score of three or higher and submit a College Action Report to the Admissions OfficeAn " N " grade will be assigned and is not included in GPA calculation.

## College-Level Examination Program (CLEP) <br> You can receive up to 30 semester credit hours toward an

 associate's degree for successful completion of selected College Level Examination Program (CLEP) Subject Examinations. CLEP examinations on which you have earned the American Council on Education (ACE) recommended pass score are eligible for review. You will be given credit toward graduation for the Lake Michigan College courses listed in the current college catalog that are equivalent to the CLEP examinations you have successfully completed.An " N " grade will be assigned and is not included
in GPA calculation.

## Other areas to note:

- Foreign language credit will be awarded solely on the basis of the results of the CLEP examinations and these rules, regardless of your native language.
- General examinations are not acceptable for transfer credit.
- If you have earned credit for a higher level class at Lake Michigan College and successfully complete a CLEP examination for a lower level course, that credit will NOT be applicable toward transfer credit or graduation credit.

For further information regarding CLEP credit, contact a Student Services Academic Advisor.

## Educational Experiences in the Armed Services

If you are a veteran of the United State armed forces, you can be awarded college credit for the service schools you attended and for your work experience while in the U.S. military. The College awards credit based on recommendations provided by the American Council on Education. Copies of your training cerrificates and a certified copy of your DD-214 must be given to the Records Office for evaluation.

## Prior Experiential Learning Credit

If you are enrolled in one of several occupational programs at the College, you may be able to receive credit for experiential learning. You will be asked to demonstrate your experience and skill level through written, oral, performance, or combination examinations that may include a porffolio.
1.You must be admitted to Lake Michigan College to apply for credit for prior experiential learning.
2. You must complete the "Request for Credit for Prior Experiential Learning: Occupational Studies Division" form.
3. You must schedule the appropriate amount of time with the examiner and complete the assessment as stipulated for the course(s) for which credit is sought.
A fee is charged for each course. The fee is paid to the Business Office when the examination has been passed successfully and before credit is posted to the transcript.
4. Credit is indicated on the transcript as prior experiential learning credit, the equivalent course and number, and the number of semester hours accepted. An " N " grade is assigned to PEL credits.
5. Grades and honor points are not given; therefore, credit for prior experiential learning does not affect the grade point average. An " N " grade will be assigned to Prior Experiential learning credits.
6. Credit for prior experiential learning is accepted at Lake Michigan College but may not be transferable to other institutions. If you intend to transfer to a senior college or university, you should discuss the ramifications of such credit with a Lake Michigan College academic or faculty advisor.

## High School Articulation Credit

Lake Michigan College has articulation agreements with many schools and career/technical centers in Berrien, Van Buren, OHtawa, and Allegan counties in Michigan and in St. Joseph County in Indiana. Classes included in the articulation agreements are courses that are taught in high schools or career/technical centers by high school teachers and have a curriculum similar to an existing class at Lake Michigan College.

If you have taken one of these classes during your high school career, you may be able to earn articulated credit at Lake Michigan College. However, if you plan to transfer to a four-year college or university, you should discuss the transferability of articulated credit with a Lake Michigan College academic or faculty advisor since this type of credit may not be transferable to other institutions. For further information, contact your high school counselor, the Lake Michigan College Admissions Office, your high school career tech instructor, or the Dean of Occupational Studies at Lake Michigan College.

## Transfer Students

If you are coming to Lake Michigan College from another college or university, you may receive a maximum of 120 credits toward a certificate or degree from Lake Michigan College for previous courses you have taken. College coursework completed with a grade of " $C$ " (2.0) or higher at accredited, post-secondary institutions, must be accredited by one of the Regional Accrediting bodies, to be considered for transfer. If you want prior coursework reviewed for possible transfer credit, apply for admission to Lake Michigan College and have an official transcript of your previous academic transcripts sent to the Records Office. Courses completed with a grade of 2.0 or better on a 4.0 scale will be accepted.*

## USAFI/DSSTs

Veterans who have successfully completed courses through the United States Armed Forces Institute (USAFI) or examinations through the DANTES Subject Standardized Tests (DSSTs) program can be awarded college credit. To be eligible, you need to submit your official transcripts and test scores for evaluation to the Records Office.

## Advising

## Academic Advising

As a prospective or current Lake Michigan College student, you are encouraged to meet with an academic advisor any time you have questions. Prior to registering as a new student, you are required to see an academic advisor or faculty advisor for assistance in planning your schedule for your first semester. You are also encouraged to meet with the faculty advisor for your area of study to develop an academic plan for your major. Faculty are available to assist you with academic questions or problems that may be interfering with progress toward your goals. Faculty office hours are posted on the instructor's door, and you are encouraged to make appointments during those hours. Appointments to meet with an academic advisor should be made through Student Services. Walk-in advising is available on a first-come, first-served basis.

Some specific areas where assistance is provided are:

- Assistance with academic opportunities and choices
- Academic program planning
- Evaluation of personality traits and academic strengths
- Transfer to senior institutions
- Special populations, i.e. disability services, single parent/ displaced homemakers, grants, and services.

If you are undecided about your area of study, you should contact Student Services at (269) 927-8128 for the Napier Avenue Campus and $M-T E C^{S M}$ at Lake Michigan College, (269) 695-1391 for the Bertrand Crossing Campus, or (269) 637-7500 for the South Haven Campus to make an appointment. An official transcript is one sent directly to LMC from the sending institution. A transcript that has been in a Student's possession is considered unofficial.

## Early College Students

Early College provides high school students with an excellent opportunity to get a jump start on their college education. Students have the opportunity to take college classes while still in high school. Classes are offered at all LMC campuses, as well as at many high schools or other locations. Students interested in taking college classes while still in high school must pass the appropriate portions of the LMC Assessment Test or have acceptable ACT scores. After graduation, the student can apply for admission to LMC. For more information, please contact your high school Guidance Counselor or the Early College Director of at Lake Michigan College at (269) 9278100 ext. 5186.

# Residency, Tuition \& Fees 

## Residency Requirements

Your residency for tuition purposes is determined from information provided on the Application for Admission. Status as defined below may be reconsidered upon presentation of written proof that your place of residence has changed. The College may require verification of your place of residency. A change in status will become effective the next semester.

## A. In-District Student

1. A student who holds, or whose parents or legal guardians hold, real taxable property in the Lake Michigan College district of Berrien County (including 49120 zip code), South Haven Schools district, or Covert Township in Van Buren County.
2. A student whose legal residence is within the Lake Michigan College district at registration time.
3. A student who is a veteran of the U.S. Armed Forces and who qualifies for Veterans' Education Benefits.

## B. Service-Area Student

1. A student who holds, or whose parents or legal guardians hold, real taxable property in the Lake Michigan College service area which includes areas located outside of Berrien County, South Haven School district or Covert Township in Van Buren County, but within Michigan or the Indiana Counties of Elkhart, St. Joseph, or LaPorte.
2. A student whose legal residence is within the service area at registration time.

## C. Out-of-Service-Area Student

1. A student holding United States citizenship who does not qualify as an In -District or Service-Area student as defined above.
2. A student who is a foreign national unless said foriegn national or spouse holds real, taxable property within Michigan or the Indiana counties of Elkhart, St. Joseph or LaPorte.
3. A student living in a state other than Michigan, or in Indiana counties other than Elkhart, St. Joseph, or LaPorte.

## D. Non-resident - Special Status

Any non-resident student attending Lake Michigan College must pay out of service tuition.
E. Change of Status

A student who is currently classified as Service-Area or Out-of-Service-Area is eligible for review of residency status for subsequent semesters upon proof that the legal residence is within the district or state.

## F. Documentation

The College reserves the right to require documentation acceptable to the College in all cases of residency determination and verification including, but not limited to, the following criteria: student's current residency address and one or more of the following documents confirming that address as the legal home of residence: State of Michigan License, State of Michigan Voter Registration Card, Tribal Card with Address, Tax Return Check Stub with Address, Utility Bill, State of Michigan ID Card, Veteran's Card with Address Lease, Property Tax Statement, or Auto, Home, or Renter's Insurance Policy.

## G. Senior Citizen

Senior citizens 60 years of age and over who meet In-District criteria will qualify for tuition-free enrollment in any college creditited course. Subject to the following provisions:

1. Registration fees and special fees (if any) for courses selected must be paid by the individual enrolled.
2. All regular registration procedures will be followed.

## H. Discretion to Adjust

Discretion in adjusting individual cases within the spirit and intent of these regulations is vested with the Board of Trustees or their designee.

## Tuition

Since tuition and fees are subject to change, the specific amount is published in each semester's schedule of classes. Tuition is based on three classifications.

1. IN-DISTRICT STUDENTS
2. SERVICE-AREA STUDENTS
3. OUT-OF-SERVICE-AREA STUDENTS

See Residency Requirements for detailed information.

## Tuition and Fee Payment Policy

Tuition and fees must be paid in full at the time of registration, or payment arrangements through the Flex Pay Plan must be made at that time. By registering for classes at Lake Michigan College, you agree to financial responsibility for all charges on your college account. You also promise to pay Lake Michigan College the full amount of the obligation by the due date. Further, you agree to pay any and all costs, including collection, attorney, and litigation costs incurred by Lake Michigan College in its effort to collect, should you default on your account.

## Delinquency/Collection Fee

A delinquency/collection fee will be added to all account balances not paid by the due date on their final notice. See current Class Schedule for fee amount.

## Prior Experiential Learning Fee

The prior experiential learning fee is for students who, through work experience and demonstration of their knowledge, place out of classes. Please refer to the current class schedule for related fees. See current Class Schedule for fee amount.

## Late Registration Fee

A late registration fee will be charged if you register for classes on or after the first day of classes each semester. If you register and pay for classes prior to the first day of classes and then decide to add classes to your schedule after that date, the Late Registration Fee will not apply to the classes you add. See current Class Schedule for fee amount.

## Note:

Tuition and fee structures are subject to change. Please refer to the most current schedule of LMC web site for most current information.

## Internet Course Tuition

Tuition for Internet courses offered through Lake Michigan College, as well as through members of the Michigan Community College Virtual Learning Consortium (MCCVLC), differs from the standard tuition rates. See the most recent class schedule for current rates.
For the purpose of Internet courses only, students who are enrolling through MCCVLC are eligible for in-district tuition rates if they are a resident of any Michigan community college district. Michigan residents who do not reside within a community college district will be charged the out-of-district rate. All other students will pay the out-ofstate tuition rate.

## Flex Pay Program

The Flex Pay program allows you to pay tuition and fees in two, three, or four monthly installments, depending on your application date. Please refer to the schedule of application deadlines listed in the class schedule.

The total of your tuition and fees will be divided into payments, which will be automatically deducted from a checking or savings account or charged to a credit card. The processing fee for this plan is $\$ 25.00$, and will be deducted. from your bank account upon receipt of your application. All arrangements for this plan are handled through the Cashier's Office and must be made before the due date on your bill. All students are required to register for FlexPay unless they pay in full by cash, check, or credit card at the time of registration.

## Refunds

1. A $100 \%$ refund of tuition and all fees will be made if a class is cancelled by the College.
2. A $100 \%$ refund of tuition and course fees will be made if you drop a class online or in the Richard J. Pappas Student Services Center on the Napier Avenue Campus or in Student Services on the Bertrand Crossing Campus or South Haven Campus on or before the end of late registration. Drop dates are published in class schedules.
3. For classes withdrawn from after last day to drop, no refund of tuition or fees will be approved. Students with special situations may file a formal tuition refund appeal, available through the Records Office, to be considered for approval of refund or credit.

Students who are currently attending LMC as their home college follow the residency according to LMC residency requirement (see page 18).

# Financing Your Lake Michigan College Education 

To help make your education at Lake Michigan College cost effective, the College works to keep tuition and fees affordable and offers a large financial aid program. As you plan for your education at Lake Michigan College, you should investigate the several forms of financial aid available including:

- Grants - see page 21
- Student Employment Program - see page 22
- Student Loans - see page 22
- Veterans Affairs Educational Benefits - see page 22


## How Financial Aid Works

If you haven't considered financial aid because you don't think you will qualify, you should take another look. Financial aid eligibility is based on need, which is the cost of attending college minus what you and your family are expected to contribute. Nearly one-third of Lake Michigan College students receive some form of financial aid.

Financial aid is designed to supplement, not replace, a family's resources. All colleges expect students and families to contribute as much as possible toward college costs.

Determining need is a very individualized process. Many factors are considered including annual income, assets, expenses, and the number of family members, as well as how many of them are attending college. These factors are combined into a formula enacted by the U.S. Congress to determine how much you and your family are expected to pay toward your college expenses.

After receiving this information, the Lake Michigan College Financial Aid Office puts together a financial aid package of funds available through grants, scholarships, and/or student employment.

## How To Apply for Financial Aid <br> It is important that you apply for financial aid early. You may

 only apply for financial aid once each academic year. For best consideration, your application should be on file in the Financial Aid Office by:> Summer and Fall Semesters
> Winter Semester Spring Semester

March 1
November 1
February 1

## STEP 1

## Complete a Lake Michigan College Application for Admis-

 sion.To receive financial assistance at Lake Michigan College, you must be admitted to the College. This will include having your final high school transcripts sent to the Records Office.

## STEP 2 <br> Complete the Free Application for Federal Student Aid (FAFSA).

Students are encouraged to complete the application on line at www.fafsa.ed.gov. Completing the FAFSA online speeds up the application time and reduces data entry errors. Students can also apply using the paper application and mailing it to the processing center in the envelope provided. Completion of the FAFSA requires prior year income information. Instructions are provided that will tell you if you need to include your parent's income information as well. YOU SHOULD ALLOW AT LEAST FOUR WEEKS FOR PROCESSING. A formula established by Congress is used to determine your financial aid eligibility. The FAFSA must be completed each year to be considered for financial aid.

## STEP 3

## Complete a Lake Michigan College Scholarship Application

 (Optional)Lake Michigan College has a wide variety of scholarships available. Complete the Lake Michigan College Scholarship Application online at www.lakemichigancollege.edu/finaid/application.html, or complete the paper application and return it to the Financial Aid Office.

## STEP 4

## You will receive an Award Letter.

After you have completed Steps 1 through 3, the Financial Aid Office will prepare a personalized financial aid package that may consist of grants, scholarships, and/or student employment. A Financial Aid Award Letter including specific amounts and types of aid will be mailed to you.

## STEP 5

Verify documents (if requested).
The Financial Aid Office may request proof of information, including copies of federal income tax returns or other household information to confirm your eligibility. Awards cannot be credited to your account until we receive all of the documents requested. All information will be considered confidential, and copies will be maintained in the student file for auditing purposes only.

## STEP 6

## Financial Aid funds are credited to your LMC account

Your financial aid will be credited directly to your school account. This can only happen after you have been officially accepted to LMC, all required documentation has been received, your file has been verified, and you have successfully passed all the U.S. Department of Education matches and edits. If the award does not cover the balance in full, you are responsible for paying the difference by the payment deadline. If you have applied but the financial aid award has not been credited to your account, you must make payment in full by the end of the semester or you will not be allowed to register for the next semester.

## Grants/Waivers

Grants are available from federal and state sources. Most grants are need-based and will require students to complete the Free Application for Federal Student Aid (FAFSA) to determine whether they are eligible. Students must meet financial need requirements as well as some general eligibility criteria (unless it is noted otherwise under the specific grant program).

## The student must be:

- accepted to an eligible program of study
- a U.S. citizen or eligible non-citizen
- enrolled at least half-time
- maintaining standards of satisfactory academic progress (see page 23)
- not in default on a federal loan or owe money to the Department of Education
- pass all U.S. Department of Education matches and edits


## Available Grants

The level of funding and amount of grants can vary from year to year. In most cases, the amount of the grant is split between fall and winter semesters. Students must reapply for grants and meet the eligibility criteria each year.

Academic Competitiveness Grants (ACG) are renewable awards for those who graduated from high school in 2005 or after and who meet other criteria including: full-time students who receive the Federal Pell Grant and completed a rigorous high school academic program as defined by federal law. For additional details on awarding and renewability, contact the Financial Aid Office.

Federal Pell Grant is a program available to undergraduate students who meet the eligibility requirements based on the Free Application for Federal Student Aid (FAFSA). If the student qualifies for a Pell grant, award levels can change from semester to semester based on the student's enrollment. Eligible students may receive a Federal Pell Grant when enrolled for at least one credit hour per semester.

## Federal Supplemental Educational Opportunity Grant (SEOG)

 is a federal grant offered to undergraduate students who show exceptional financial need as determined by the FAFSA. Due to limited funds, SEOG is awarded on first-come, first-serve basis.Indian Tuition Waiver covers tuition costs for Native Americans with one quarter or more quantum blood certified by their tribe. Students will still be responsible for fees. For more information, contact the local tribal headquarters or the Inter-Tribal Council of Michigan, Inc., at (906) 632-6896.

Michigan Adult Part-Time Grant provides funds for independent Michigan residents attending a Michigan post-secondary school for students who are enrolled less than full-time and demonstrate financial need. Due to limited funds, awards are made on a first-come, first-serve basis.

Michigan Educational Opportunity Grant provides assistance to Michigan residents attending a Michigan post-secondary school who are at least half-time and demonstrate financial need. Due to limited funds, awards are made on a first-come, first-serve basis.

Michigan Tuition Incentive Program (TIP) pays tuition and a portion of fees (up to $\$ 250$ per semester) for up to 24 credit hours each academic year for those who qualify. Students who qualify for TIP received Medicaid for 24 consecutive months within a 36 month period as identified by the Department of Human Services (formerly known as Family Independence Agency). Application must be made prior to high school graduation or receiving a GED certificate. For more information, contact the Office of Scholarships and Grants at (888) 447-2687 or via e-mail at osg@michigan.gov.

Children of Veterans Tuition Grant provides assistance to students aged 16 to 26 who had a parent who was killed in action, missing in action or suffered total, permanent disability as a result of the parent's service in the U.S. Armed Force. For more information, contact the Office of Scholarships and Grants at (888) 447-2687 or via e-mail at osg@michigan.gov.

Veterans Administration Educational Benefits are available to eligible veterans of the U.S. Armed Forces. Contact the Lake Michigan College VA Coordinator at (269) 927-8100, ext. 5008 for further information regarding this program.

## Student Employment Program

If you are interested in part-time, on-campus employment opportunities, they are available through the Work Study Program. The Work Study Program provides a great opportunity for students to gain valuable experience, develop new resources, and earn extra money while pursuing their education. The program is funded through federal, state and Lake Michigan College funds. Students can be considered for Work Study employment once they complete a FAFSA application. Eligibility is based on a student's financial need, academic standing, and enrollment status. The amount of money that you can earn is based on the availability of funds and/or your financial need. If eligible for the Work Study Program, you may be able to work up to a maximum of twenty hours per week at your supervisor's discretion. If interested, contact the Financial Aid Office at (269) 927-81 12.

## Direct Stafford Loan

## What is the Direct Loan Program?

Loans are financial aid that must be repaid by the student, with interest. Loans are a legal obligation, and are a serious responsibility. There are significant consequences when students default on loans. So students should think carefully about how much they require to pay for their educational expenses and only borrow what they need.

The Subsidized Stafford Loan is a need-based loan program. The interest is paid by the Federal government while the student attends school at least half-time, during the 6 month grace period, and during deferment periods for the Stafford Subsidized Loan.

The Unsubsidized Stafford Loan is a non-need based loan program. Even students who do not qualify for other types of aid may qualify for an unsubsidized loan (as long as they meet the requirements listed under the "E" section). The Federal government does not pay the interest for the student. The student is responsible for paying all interest that accrues on their unsubsidized loans while they are attending school, during the six month grace period, and once repayment has begun on the loan.

## Eligibility for Direct Loans

- File the Free Application for Federal Financial Aid (FAFSA) be enrolled at least half-time (6 or more credits per semester for Fall/Winter)
- complete all documentation requirements
- be accepted to LMC and enrolled in an eligible program
- not be in default on a prior federal loan
- not have an outstanding overpayment on a federal grant
- be making satisfactory academic progress
- not have any other reasons for being ineligible for federal aid programs


## Veterans Affairs Educational Benefits Application for Benefits

If you are a full- or part-time, potential recipient of Department of Veterans Affairs educational benefits, you must apply for admission to Lake Michigan College and indicate your chosen associate's degree program of study. High school transcripts and/or GED scores, all post secondary school transcripts must be forwarded to the Records Office for evaluation. Discharge documents must be forwarded to the Veteran's Coordinator.

## Advanced Payment Check Requests

Upon your request, the Veterans Affairs Coordinator will process a request for an advance payment check for the first two months' benefits from the Department of Veterans Affairs. If you want an advance payment check, contact the Veterans Affairs Coordinator at least 60 days prior to the start of a term.

## Reporting of Changes

The Department of Veterans Affairs requires that, if you are receiving educational benefits, you immediately report any change in credit hour load, dependency status, address, or program of study to the Veterans Affairs Advisor.

## Satisfactory Progress Standing for VA Benefits <br> The Michigan State Approving Agency and the Department of

 Veterans Affairs require Lake Michigan College to establish academic progress standards for veterans and other eligible persons in order to receive Veterans Affairs educational benefits. Satisfactory academic progress is of primary concern. As an educational benefit recipient, you are considered to be making satisfactory progress if your cumulative grade point average (GPA) is 2.00 or above.
## Academic Probation for VA Benefits

If, as a Veterans Affairs educational benefit recipient, your Lake Michigan College GPA drops below 2.00, you will be placed on academic probation. During the probationary period, you may continue to receive educational benefits; however, probationary status may not exceed two terms. At the end of the probationary period, if your cumulative GPA still does not meet the minimum graduation requirement of 2.00 or better, a report of unsatisfactory progress will be sent to the Department of Veterans Affairs and you will stop receiving benefits. Certification for further educational benefits will not be submitted until your cumulative GPA reaches 2.00.

If you want your certification for educational benefits reinstated, you are required to submit a written statement to the Veterans Affairs Advisor, which will be forwarded to the Department of Veterans Affairs. This statement must include an explanation of how the cause of your unsatisfactory progress has been corrected.

# Standards of Satisfactory Academic Progress for Financial Assistance Eligibility 

The U.S. Department of Education requires colleges to establish standards of Satisfactory Academic Progress (SAP) for students to meet for the continuation of all types of financial assistance, including federal, state and institutional funds. These standards include consideration of GPA, credit completion rate, and total credits attempted. The policy is explained in detail below.

## General Information

SAP standards are intended to measure progress toward the completion of a degree program or certificate, as well as academic performance, throughout the student's course of study. They apply to all periods of enrollment at Lake Michigan College, even those during which financial assistance was not received.

All students are considered to be meeting SAP standards during their first period of enrollment at Lake Michigan College. Thereafter, a student's continued financial assistance eligibility for subsequent semesters is determined after enrollment in fall and winter semesters. If the student does not enroll for either fall or winter semesters, the student's SAP classification will be determined based on their most recent enrollment period.

Because these SAP standards are used to determine the student's continued eligibility to receive financial assistance, students who do not meet the standards may still enroll at Lake Michigan College. They will, however, be responsible for the entire cost of tuition and

## Satisfactory Academic Progress Standards

Minimum Grade Point Average That Must Be Maintained
The minimum semester or cumulative* grade point average (GPA) which a student must maintain is determined by the cumulative number of credit hours the student has attempted at Lake Michigan College. The required minimums are:

## Number of Hours Attempted <br> Minimum Required GPA <br> $$
\begin{array}{ll} 1-30 & 1.75 \\ 31 \text { and above } & 2.00 \end{array}
$$ <br> <br> 31 and above <br> <br> 31 and above 2.00

 2.00}*The greater of either semester GPA or cumulative GPA will be used to determine compliance with the SAP policy.

## Minimum Number of Credit Hours That Must Be Completed

To continue in good standing, a student must successfully complete at least 67 percent of the number of credit hours enrolled each semester or at least 67 percent of total cumulative credit hours attempted, whichever is greater. So, students who enroll for 12 credits in a particular semester must successfully complete at least 8 credits; or, on the other hand, students who have attempted 35 total cumulative credits at Lake Michigan College must have successfully completed at least 24 credits. The higher completion rate of the two (semester or cumulative) will be used to determine if the student continues in good standing or is placed on probation. To successfully complete a class, the student's grade must be one of the following: $A, B, C, D$, or $S$. Non-passing grades are: E, I, U, and W. A student may not receive financial aid for classes registered as "Audit."

## Maximum Number of Semester Hours Allowed

The U.S. Department of Education requires a student to progress toward a degree or certificate at a rate that would allow completion of the program of study within a period not greater than 1.5 times the normal program length. Hence, a student would be allowed three years to complete a two-year degree. Many Lake Michigan College students do not maintain a consistent enrollment status and often change from full-time to half-time or to three-quarter time, even within a given school year. Therefore, the required maximum timeframe within which students must complete the program of study is measured, at Lake Michigan College, by the total number of credits attempted, not the actual time measured in semesters. For example, if your degree requires 61 credits, the maximum credits you can attempt is 92 .

## Financial Aid Probation

Students will be placed on financial aid probation for the following semester in which they enroll when:

1. The student's semester GPA or cumulative GPA (whichever is greater) is less than the minimum required GPA as outlined above; or,
2. The student's semester completion rate or cumulative completion rate (whichever is higher) is less than 67 percent.

Students who are being placed on financial aid probation will be notified in writing and should see the At-Risk Advisor at that time.

While on probation, students may receive financial aid as awarded. Students will continue to be on probation until they have successfully raised their cumulative GPA and their cumulative completion rate above the required minimum level or they lose financial aid eligibility by continuing to make unsatisfactory progress as described below.

## Removal from Financial Aid Probation

A student will be removed from probationary status once the following are attained:

1. The student's cumulative GPA reaches or exceeds the minimum required GPA, as outlined above, and
2. The student successfully completes credit hours that total those that were previously dropped and/or failed; or successfully completes at least 67 percent of total cumulative credits attempted at Lake Michigan College.

## Unsatisfactory Progress

A student is considered to have not maintained the standards of Satisfactory Academic Progress (SAP) and will lose eligibility to receive financial assistance if:

1. While on probation the student's semester GPA is below the minimum required GPA as outlined above, or
2. While on probation the student fails to complete the required 67 percent of the credits enrolled during a semester, or
3. The student has attempted the maximum number of credit hours allowed at Lake Michigan College.

## Regaining Financial Aid Eligibility

Students who lose financial aid eligibility may regain that eligibility by doing any one of the following items:

1. Take the necessary credits at their own expense to:
a) Reach the minimum cumulative GPA required as outlined above, and,
b) Successfully complete all credit hours previously dropped and/ or failed, or, successfully complete at least 67 percent of total cumulative credits attempted at Lake Michigan College.
2. File an appeal to the Financial Aid Appeals Committee indicating the extraordinary circumstances that existed and caused the student's failure to meet SAP policy. Should the appeal be approved, the student would regain aid eligibility according to the committee's stipulations. (See the following for more information regarding an appeal).

## Filing an Appeal

A student who has not maintained the standards of Satisfactory Academic Progress for financial assistance eligibility may complete a Financial Aid Student Appeal Form with the Financial Aid Office. The appeal should indicate the mitigating circumstances that caused the unsatisfactory progress to occur and how the student has overcome the circumstances and now expects to continue making satisfactory progress toward a degree or certificate. The student must provide supporting documentation to substantiate the circumstances presented. Circumstances that the Appeals Committee will consider include the death of a relative, personal illness or injury, or other specific mitigating circumstances beyond the reasonable control of the student.

## Courses Below 100 Level

Students enrolled in courses below the 100 level must successfully complete the required minimum 67 percent of all courses attempted. However, since the grades received in these classes are not included as a part of the grade point average, the GPA requirement is waived.

## "I" and "S" Grades, "Audit" and Repeated Classes

 Since an " 1 " grade is considered as an " $E$ " until a letter grade is received, a grade of "I" can affect a student's financial aid eligibility (see page 198 for rules governing "I" grades). "S" grades received in 090-level classes count as successful completion of the class. A student may not register to audit a class while receiving financial assistance. Students receiving financial aid may only take a course for a maximum of three times and receive aid for it. When a course is repeated, the hours generated by the repeated course will count toward the maximum allowable credits; however, only the better grade will count toward the GPA required for aid eligibility purposes.

## Program, Transfer, and Degree Information

## One- and Two-Year Career Education Programs

If you want a job where a bachelor's degree is not required but some level of college education is necessary, the Career Education programs at Lake Michigan College are designed to meet your needs. By working with your academic advisor or faculty member you will be able to develop a plan that will help you reach your goals. It may consist of one or more courses that provide you with specific skills, a series of courses that lead to a Certificate of Achievement, or a plan where you will earn an associate's degree.

Career Education programs are not typically designed to transfer to four-year colleges and universities, though transfer agreements have been established for some. You also may be able to transfer to specific schools, depending on your chosen program. A Lake Michigan College advisor or faculty member can answer your questions related to transfer opportunities.

## Flexible Training Options

Many Career Education program courses are offered on an open entry/open exit basis where you can tailor your class schedule to meet your needs. See page 12 for more information about open entry/open exit.

## Credit for Previous Experience

As part of the seamless transition from secondary school or the work place to Lake Michigan College, you may be able to receive credit for previous classes and experience and apply it toward a certificate or degree. For information on credit for high school classes see the High School Articulation section and for information on credit for work experience, see the Prior Experiential Learning Credit section, both on page 16.

## Associate's Degree Programs Career Education

The following are the associate's degree programs offered through Career Education. For detailed program information, see the Programs section beginning on page 32. These degrees may be transferred to Siena Heights University at Lake Michigan College for completion of a bachelor's degree. Call Siena Heights at (269) 9276711 for more information. They may also transfer to other four-year schools. Speak with your academic advisor for more information.

Accounting
Administrative Office Systems
Agriculture
Computer Information Systems Information Technology Networking
Programming
Web
Corrections, Probation, Parole
Dental Assisting
Drafting \& Design Technology
Early Childhood Education Energy Production Technology

General Technology
Graphic Design
Hospitality Management Industrial Maintenance Technology Law Enforcement
Legal Office Systems
Machine Tool Technology
Management \& Marketing
Medical Office Systems
MRI
Nursing (RN)
Paramedic
Radiologic Technology Skilled Trades Technology Sonography

Career Education Certificate of Achievement Programs Certificate programs focus on specialty courses to prepare you for job entry or job skills upgrading for your current job.<br>\section*{Cisco}<br>Dental Assisting<br>Drafting \& Design Technology<br>Early Childhood Education<br>Graphic Design<br>Hospitality Management<br>Legal Office Systems<br>Machine Tool Technology<br>Magnetic Resonance Imaging<br>Medical Office Systems<br>Nursing, Practical<br>Office Automation Specialist<br>Skilled Trades Technology

## Transfer Plus

(Specialized programs degree/certificate issued through participating institution not through LMC.) with a MAJOR in:
Cardio Respiratory Care (KVCC)* Dental Hygiene (KVCC)*
Fire Science - Associate (KVCC)* Fire Science - Certificate (KVCC)* Law Enforcement (KVCC)* Medical Assistant Tech (KVCC)* Water Purification (BNCC)*

* Not Financial Aid eligible


## Level I Certificate

(Fewer than 30 credit hours.)
Certificate majors:
Customer Service*
CIS - Information Technology*
CIS - PC and Network Technician*
CIS - Programming*
CIS - Web*
Drafting and Design*
Machine Tool*
Numerical Control Specialty*
Technology*
Fluid Power*
Industrial Computing*
Manufacturing Production*
Energy Production*

## Four-Year College Transfer Information

Many students come to Lake Michigan College to earn the first two years of their bachelor's degree and plan to transfer to a four-year college or university.

By working with your Lake Michigan College academic advisor, you can plan an Associate in Arts, Associate in Science, or an Associate in Business Administration degree that will meet the general requirements for most four-year colleges and universities. Because courses in communications, humanities, mathematics, natural sciences, and social sciences are similar in colleges across the country, you can easily transfer these courses to in-state and out-ofstate schools.

## MACRAO Transfer Agreement

Lake Michigan College is a participating member of the MACRAO Transfer Agreement. Many Michigan four-year colleges and universities have agreed to a statewide transfer agreement proposed by the Michigan Association for Collegiate Registrar and Admissions Officers (MACRAO).

The MACRAO Transfer Agreement was created to simplify your transfer from one institution to another. The agreement stipulates that 30 -semesters credit hours of 100-level-and-above, compatible, general course work will be granted smooth transferability to participating universities; these credits will be applied toward your general education requirements.

The MACRAO agreement only addresses general studies requirements. Any major and minor requirements and proficiency required of you are determined by each individual four-year school.

## MACRAO Agreement Satisfied Notation <br> When you graduate from Lake Michigan College with an Associate

 in Arts, Associate in Science, or Associate in Business Administration degree, or MACRAO certificate, your transcript will have the notation "MACRAO Agreement Satisfied."If you have not received one of these associate's degrees but have completed the MACRAO agreement, you can have this notation placed on your transcript but you must contact the Records Office.
A.English 101 and English 102 or 103-6 credits
B. Natural Science - 8 credits

- Biology 101, 108, 111, 112, 204, 205, 206, 210, 212
- Chemistry 101, 102, 105, 106, 111, 112, 203, 204
- Physical Science 101, 104
- Physics 101, 102, 104, 201, 202
- Mathematics 122, 128, 130, 151, 201 202, 216, 252, or BUSA 216
- At least one course must be a laboratory course. Courses must be taken in more than one academic discipline.
C. Social Science - 8-9 credits
- Business Administration (Economics) 203, 204
- Geography 100, 101, 102
- History 101, 102, 201, 202, 204 207, 208, 209, 210
- Political Science 101, 102, 202, 203, 204, 250, 260
- Psychology 201, 203, 204, 205 206, 231, 250
- Sociology 101, 201, 202, 204, 205, 210, 250 Courses must be taken in more than one academic discipline
D. Humanities - 8-9 credits
- Art 101, 102, 200, 201, 202, 203, 204
- English 201, 203, 204, 205, 206, 208, 209, $211,214,215$, 216, 217, 220
- Foreign Language* 101-202, 211, 212, 221, 222, 251 (not FORL 123, or 124)
- Humanities 105, 201 207, 208, 209, 210, 211, 212, 213, 221, 294
- Music 109, 187, 213, 214
- Philosophy 101, 102, 215, 250
- Communication 101
- Drama 201

[^1]Note: See Honors courses listed under course descriptions.

## Transfer Areas of Study

Lake Michigan College academic advisors can help you access online transfer curriculum guides for programs at a wide variety of fouryear schools. With these guides and the help of your advisor, you can build an academic plan that will make the most of your time at Lake Michigan College and position you for success when you transfer to the four-year school of your choice. Also, consult the Lake Michigan College Mall at www.macrao.org for transfer equivalencies and curriculum guides. Programs that you can prepare for include:

Art<br>Athletic Training<br>Biology<br>Business Administration<br>Chemistry<br>Chiropractic<br>Communication<br>Computer Science<br>Dentistry<br>Elementary Education<br>Engineering<br>English<br>Environmental Science<br>Foreign Language<br>Forensics

General Studies
Geography
Geology
Health
History
Hospitality and Tourism Management
Humanities
Law
Law Enforcement
Liberal Arts
Manufacturing Engineering (WMU)
Mathematics
Medicine and Osteopathic Medicine
Mortuary Science
Music

Nuclear Engineering<br>Optometry<br>Pharmacy<br>Philosophy<br>Physical Education and Wellness<br>Physical Science<br>Physical Therapy<br>Physician's Assistant<br>Physics<br>Political Science<br>Psychology<br>Secondary Education<br>Social Work<br>Sociology<br>Theatre<br>Veterinary Medicine

## Typical Course Loads

## Full-time (14 week) status: 12+ credits; Part-time status;

 6-11 creditsTo complete an associate's degree in two years, you will need to carry 15-16 credit hours per semester for four, full-time semesters. This course load of four to five classes is recommended only if you are working less than 20 hours per week. Maximum credit hours allowed for 14 week semester is 18 .

Many students take spring and/or summer classes to reduce their course load during the regular school year. Spring and summer semesters at Lake Michigan College are seven to ten weeks long compared to the 14 -week fall and winter semesters. Because of the accelerated nature of the spring and summer classes, six credit hours, or two classes, is considered a full class load. Maximum allowed 8 credit hours for a 7-week semester. Eight credit hours is considered a full class load for a 10 -week semester.

## Area of Study Transfer Credits

In addition to completing your general education requirements, which are outlined in the MACRAO Transfer Agreement section, you should begin work in your intended major or area of study. Learn about the course requirements in your field of study at the college or university to which you plan to transfer.

To make sure you choose appropriate classes at Lake Michigan College, you should:

1. Decide on the field of study you want to pursue and contact the Career Services Center or an academic advisor to get more information.
2. Decide on the college or university you plan to attend.
3. Meet with a Lake Michigan College academic advisor to plan your program of study. Academic advisors have up-to-date information about the transferability of Lake Michigan College courses.
4. Check the MACRAO internet site at www.macrao.org.
5. Once you have selected your transfer school, meet with an admissions representative from that school to better understand their admission process and explore college transfer requirements.
6. Apply to the transfer school one year in advance of the expected transfer date. At this time, you should request that a copy of your official transcript from the Office the Registrar be sent to the transfer school.

## Undecided Students

If you know that you want to transfer to a four-year school but are unsure of what area of study you want to pursue, your Lake Michigan College academic advisor can help you plan a solid associate's degree program. With this, you can transfer to a four-year school, and make the most of your time and money at Lake Michigan College. You will also have access to job and career information during your time at Lake Michigan College that will allow you to explore the options available. Through the Career Services Center, people with special knowledge of career options can help you explore jobs and your own interests and talents.

# General Education, Degree, \& Certificate Requirements 

## Graduation

Once you complete the general education and degree requirements for graduation, you will be eligible to apply for the appropriate associate's degree from Lake Michigan College. If you complete requirements for a certificate program, you will be eligible to apply for a Certificate of Achievement. You may graduate at the end of the fall or winter semesters, with commencement exercises held annually at the close of the winter semester in early May. Participation in commmencement does not mean that you have completed all of the requirements for your degree or certificate.

## Graduation Requirements

Once you have earned at least 30 credit hours toward a degree, or 15 hours toward a certificate, you should request a pre-graduation audit. You may graduate under the Lake Michigan College catalog in effect at the time of initial registration at Lake Michigan College or any succeeding catalog. However, no student may graduate under the requirements of a catalog that is more than 10 years old.
A student who began courses at LMC prior to fall 1998 may have Healthful Living (PHED 200) waived for the first associate's degree only. The semester credit hour from this wavier must be met in another area to fulfill the total credit hours required for the degree.

## Requirements that must be met include:

1. Admission to Lake Michigan College.
2. Associate Degree: satisfactory completion of at least 61 semester hours of credit. Some programs require more than 61 semester hours. Of these, 61 or more total hours required for the associate degree, a minimum of 20 credit hours must be taken at Lake Michigan College. The remaining 41 or more credit hours may be from Lake Michigan College courses, CLEP credit, transfer credit (TR), prior experiential learning credit (PEL), articulated credit (AC), and credit by examination. Of the final 20 hours applied to the degree, 10 must be taken at Lake Michigan College and none of these 10 may be CLEP, TR, PEL or credit by examination. Certificate of Achievement: Satisfactory completion of at least 30 semester hours of credit. Some programs require more than 30 semester hours. Of these 30 or more total hours required for the Certificate of Achievement, a minimum of 15 credit hours must be taken at Lake Michigan College. The remaining 15 or more credit hours may be from Lake Michigan College courses, CLEP, TR, PEL, AC or credit by examination. The final 10 credits needed to complete the Certificate of Achievement must be earned in Lake Michigan College courses, not CLEP, TR, PEL or credit by examination.
Level I Certificate: A Level I Certificate is a program with 1 to 29 credit hours that gives you the basic skills that are in demand by local employers. All of the credits can then be applied toward a Certificate of Achievement and toward the appropriate associate degree.
3. Course credits earned for fulfilling the requirements of a certificate and/or an associate's degree must be at the 100-level or above. Courses with numbers below 100 are graded but not used to compute a student's grade point average or calculated into graduation credit hour requirements.
4. A grade point average of not less than 2.00 (C).
5. For associate's degree, participate in Outcomes Assessment Testing (OAT) as managed by the administration of the college. The college will accept a maximum of 30 credits by CLEP and 120 credits by transfer.

## December Graduation

If you apply for December graduation, you must complete all coursework by the end of the fall semester. If you don't complete all coursework by the end of fall semester, you will have to re-apply and pay again for another graduation date. As a December graduate, you can attend the May commencement ceremony.

## December Graduation Timeline

Applications available Sept. 1.
Last day to apply for December graduation is 2nd Friday in
November.

## May Graduation

If you apply for May graduation, you can finish any coursework during the spring and/or summer sessions immediately following. If, as a May graduate, you have not completed your coursework by the end of the summer session, you will have to re-apply and pay again for another graduation date.

## May Graduation Timeline

Applications available Jan. 1
Last day to apply for May graduation is last Monday in February.

## Fees \& Diplomas

The graduation application fee is the same for either the May or December graduation dates. This fee is non-refundable. Graduation statements will be posted to your transcripts and your diploma will be mailed approximately six weeks following the date of graduation or completion of all degree requirements. There is no additional charge to participate in commencement exercises.

## Transfer Credit for Graduation

Courses you complete with a grade of 2.0 or better on a 4.0 scale at another accredited college will be accepted when they apply to your program at Lake Michigan College. These transfer credits MUST be received no later than two weeks immediately following the date of graduation from Lake Michigan College. Transfer credits must be received via an official college transcript mailed directly to Lake Michigan College. The grade point average (GPA) from another college does not affect the Lake Michigan College GPA.

## Cooperative Work Experience

Cooperative Work Experience is a process of education that combines work experience with college instruction as an integral part of the community college curriculum. It is called Cooperative Work Experience because employers and educators cooperate to form a more complete educational program for students. It is a unique plan of education designed to develop skills and provide hands-on experience by integrating classroom study with planned, supervised work experience. Ał Lake Michigan College, the employer typically pays co-op positions and the student will typically earn college credit.

## Internship

Internship is a process of education that combines work experience with college instruction as an integral part of the community college curriculum. Internship is a unique plan of education designed to develop skills and knowledge and to provide hands-on experience specific to a discipline by integrating classroom study with planned, supervised work experience. Internships form a more complete educational program for students. At Lake Michigan College, internships are typically un-paid positions and the student will typically earn college credit.

## General Education

Students must select courses from the General Education Groups. Requirements vary for each associate's degree. Virtually all colleges and universities require a number of courses in English, humanities, biological and physical sciences, and social sciences that serve to broaden a student's intellectual background.

## General Testing

As part of the College's effort to evaluate the effectiveness of our General Education program, each student will also participate in assessment as determined by and managed by the administration of the college. This assessment shall be of the requirements for each associate degree awarded by the college. The minimum group requirements for the various degrees are outlined on page 30.

When you complete the Associate of Arts, Associate of Science, or Associate in Business Administration, you will satisfy the freshmansophomore general education requirement at most four-year institutions in Michigan by virtue of the Michigan Association of College Registrars and Admissions Officers (MACRAO) Transfer Agreement. See page 26 for more transfer information.

## College Requirements

a. English 101 and English 102 or 103.
b. Political Science 101 or Political Science 102 or History 201 or History 202.
c. Physical Education 200,212 or 214 for associate's degree programs only.
d. Outcomes Assessment Test for associate degree program only.

NOTE: Credits from only one of the following courses will count toward LMC graduation; PHED 200, 212 or 214.

## Group Requirements

In addition to college requirements, you must select the required courses, which vary for each associate's degree, from the following groups.

## Group I Science

a. Biology 101, 108 (beginning fall 2006), 111, 112, 204, 205, 206, 210, 212
b. Chemistry 101, 102, 105, 106, 111, 112, 203, 204 Physical Science 104, 101 Physics 101, 104, 102, 201, 202
c. Mathematics $122,128,130,135,151,201,202,216,252$ or BUSA 216

NOTE: Only the mathematics courses listed will satisfy graduation requirements for Associate in Arts, Associate in Science, or Associate in General Studies degrees.

## Group II Social Science

- Business Administration 203, 204
- Geography 100, 101, 102
- History 101, 102, 201, 202, 204, 207, 208, 209, 210
- Political Science 101, 102, 202, 203, 204, 250, 260
- Psychology 201, 203, 204, 205, 206, 231, 250
- Sociology 101, 201, 202, 204, 205, 210, 250


## Group III Humanities

- Art 101, 102, 200, 201, 202, 203, 204
- Drama 201
- English 201, 203, 204, 205, 206, 208, 209, 211, 214, 215, 216, 217, 220
- Foreign Language $101,102,111,112,121,122,125,126$, 174, 175, 177, 178, 179, 180, 181, 182, 184, 185, 186, $187,188,189,191,193,194,195,196,198,199,201$, 202, 211, 212, 221, 222, 251
- Humanities 105, 201, 207, 208, 209, 210, 211, 212, 213, 221, 294
- Music 109, 187, 213, 214
- Philosophy 101, 102, 215, 250
- Communication 101
*Note: See Honors Courses listed under Course Descriptions.


## Specific Degree Requirements

| Associate in Arts |  |  |
| :--- | :---: | :--- |
| Course Type | Number of <br> Semester Hours |  |
| College requirements | 10 |  |
| Group I a. | 4 |  |
| Group I b. | 4 |  |
| Group I c. | 3 or 4 |  |
| Group II | 6 |  |
| Group III | 9 | in at least two areas |
| Electives | 24 or 25 |  |
| Total Hours | 61 |  |

## Associate in Science

|  | Number of <br> Semester Hours | Notes |
| :--- | :---: | :--- |
| College requirements | 10 |  |
| Group I a, b, \& c | $23-24$ | At least 8 hours must be from <br> Group I a or b; <br> At least 3-4 must be from Group I c |
| Group II | 6 |  |
| Group III | 9 | In at least two areas |
| Electives | 12 or 13 |  |
| Total Hours | 61 |  |


| Associate in Business Administration <br> Course Type <br>  <br>  <br> Number of <br> Semester Hours |  |  |
| :--- | :---: | :--- |
| Notes |  |  |
| College requirements | 10 |  |
| Group I a or b | 4 |  |
| Group Ic | 4 | Pre-Calculus Algebra 128 |
| Group II | 9 | Economics 203 \& 204, and <br> Sociology 101 or Psychology 201 |
| Communication 101 | 3 |  |
| Group III | 6 | In at least two areas |
| Department Requirements | 26 | See Business Administration |
| Total Hours | 62 | Program |


| Associate in Applied Science |  |  |
| :--- | :---: | :--- |
| Number of <br> Semester Hours |  |  |
| Notes |  |  |
| College requirements | 10 |  |
| Group I, II, III | 11 | In at least two groups |
| Department Requirements | $40+$ | See specific program |
| Total Hours | $61+$ |  |

## Associate in Applied Business

| Course Type | Number of <br> Semester Hours | Notes |
| :--- | :---: | :--- |
| College requirements | 10 |  |
| Group I, II, III | 9 | In at least two areas |
| Department Requirements | $42+$ | See specific program |
| Total Hours | $61+$ |  |

Associate in Industrial Technology

| Course Type | Number of <br> Semester Hours | Notes |
| :--- | :---: | :--- |
| College requirements | 10 |  |
| Department Requirements | $51+$ | See specific program |
| Total Hours | $61+$ |  |


| Associate in Skilled Trade Technologies |  |  |
| :--- | :---: | :--- |
| Number of <br> Course Type |  |  |


| AsSociate in General Studies |  |  |
| :--- | :---: | :--- |
| Course Type | Number of <br> Semester Hours | Gen. Ed. <br> Requirements |
| CIS 100 or 102 | 3 or 1 | 7 |
| ENGL 101 and 102 or 103 | 6 | 2 and 3 |
| POSC 101 or 102 or <br> HIST 201 or 202 | 3 | 4 and 3 |
| PHED 200 | 1 or 3 | 8 and 3 |
| SCIENCE (Group I a or b) | $3-4$ |  |
| MATH (Group I c) | $3-4$ | 6 and 3 |
| HUMANITIES (Group III) | $3-4$ | 1 and 3 |
| Electives | $34-41$ | Various |
| Total Hours | 61 |  |

## Level I Certificate

A Level I Certificate is a program with 1 to 29 credit hours that gives you the basic skills that are in demand by local employers. All of the credits can then be applied toward a Certificate of Achievement and toward the appropriate associate degree.

## Certificate of Achievement

Lake Michigan College offers certain specific certificate programs. Others may be developed to meet particular employment goals. Certificate programs require a minimum of 30 semester hours of credit for the Certificate of Achievement.

## Additional Associate Degrees

You can earn additional associate's degrees when you meet all of the requirements of that particular degree. A minimum of 15 additional semester hours of " C " credit or higher must be completed at Lake Michigan College and these hours must specifically apply in the additional degree. You may graduate under the Lake Michigan College catalog in effect at the time of initial registration at Lake Michigan College or any succeeding catalog. However, no student may graduate under the requirements of a catalog that is more than 10 years old.

# General Education, College, and Group Requirements For Graduates of Lake Michigan College 

Lake Michigan College takes great pride in the quality of its Academic Programs. Data from cooperating baccalaureate institutions have consistently shown that LMC students who transfer to those universities do very well academically. Frequently our students earn higher grade point averages than students who began at the universities and maintain higher averages than the statewide average for transfer students.

A core component of our strong academic program is our General Education Requirement. All associates degree graduates of Lake Michigan College must meet requirements in eight general categories. These requirements were developed by the faculty and academic administrators and were approved by the college administration to be a part of all associate degrees granted. These requirements are embedded in coursework across all curricula and are measured within specific courses.

A well-educated student, upon completion of an associate degree program from Lake Michigan College, will be able to do the following:

## 1. Arts \& Humanities

Demonstrate an awareness of the capacity, values, and variety of human experiences as expressed through the arts and humanities.

This objective can be satisfied by successfully completing any program requirements or electives listed under Group III: Humanities.

## 2. Communication

Express ideas both orally and in writing; demonstrate the ability to understand written, visual, and spoken communications; convey purpose, meaning, and main ideas effectively to individuals and groups.

This objective is fully satisfied by successfully completing College Requirements.

## 3. Critical Thinking

Identify central issues and assumptions in an argument, recognize important relationships, locate additional information sources, make reasonable inferences from data, deduce conclusions from data or information, interpret whether conclusions are warranted on the basis of the data analyzed, and evaluate evidence and authority.

This objective is fully satisfied by successfully completing College Requirements.

## 4. Culture and Society

Demonstrate an awareness of the commonality and diversity of individual and group behavior. Demonstrate awareness of the contemporary global community and its geographic, cultural, economic, political, and historical dimensions. Understand the history, structure, and function of American political, economic, and social institutions.

This objective is fully satisfied by successfully completing College Requirements.

## 5. Mathematics

Represent and solve problems using mathematical techniques. Demonstrate an awareness of the usefulness of mathematics in society.

This objective can be satisfied by successfully completing any program requirements or electives in Mathematics, including, but not limited to, those courses listed under Group I c.

## 6. Science

Demonstrate how basic principles of science apply to life and an understanding of our universe. Apply the methods of scientific inquiry and research to problem solving.

This objective can be satisfied by successfully completing any program requirements or electives in Science, including, but not limited to, those courses listed under Group I a and b.

## 7. Technology

Describe how changes in modern technology affect the individual, society, and the environment. Demonstrate the ability to use computers and related technology to manage and access information.

This objective can be satisfied by successfully completing program requirements or electives in a variety of areas. Please consult an advisor for more information.

## 8. Wellness

Demonstrate an awareness of the relationship between lifestyle choices and optimal health.

This objective is fully satisfied by successfully completing College Requirements.

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Medical Assistant Technology ..... 95
Medical Office Systems. ..... 96
Medicine \& Osteopathic Medicine (Pre) ..... 97
Mortuary Science (Pre) ..... 98
Music - Associate in Arts ..... 99
Music - Associate in Science ..... 100
Nuclear Technology. ..... 101
Nursing (Practical) ..... 102
Nursing (Registered) ..... 104
Optometry (Pre) ..... 106
Paramedic ..... 107
Pharmacy (Pre) ..... 108
Philosophy ..... 109
Physical Education \& Wellness ..... 110
Physical Science ..... 111
Physical Therapy (Pre) ..... 112
Physicians Assistant (Pre) ..... 113
Physics ..... 114
Political Science ..... 115
Psychology ..... 116
Radiologic Technology ..... 117
Respiratory Care (Respiratory Therapy) ..... 118
Skilled Trades Technology ..... 119
Sociology/Social Work (Pre) ..... 120
Thearre. ..... 121
Ultrasound (see Diagnostic Medical Sonography)
Veterinary Medicine (Pre) ..... 122
Water Purification Technology ..... 123
Emergency Medical Services ..... 124
Health ..... 124

Business, Management Marketing \& Technology

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course requirements.
Degree Requirements ..... Credit Hours
College Requirements
English 101, English Composition. ..... 3
English 103, Report Writing ..... 3

* Physical Education 200, Healthful Living, orPhysical Education 212, Health and Fitness, orPhysical Education 214, Personal Healthor 3
Political Science 101, National Government, or Political Science 102, State Governments, or History 201, American History to 1865, or History 202, American History 1865 to present. ..... 3
Support Courses
Mathematics 122, Intermediate Algebra ..... 4
Psychology 201, Introduction to Psychology ..... 3
Communication 101, Introduction to Public Speaking ..... 3
Major Requirements
Business Administration 201, Principles of Accounting I. ..... 4
Business Administration 202, Principles of Accounting II ..... 4
Business Administration 203, Principles of Economics (Macro) ..... 3
Business Administration 204, Principles of Economics (Micro) ..... 3
Business Administration 205, Business Law I. ..... 3
Business Administration 212, Accounting Applications on Computers. ..... 3
Business Administration 213, Cost Accounting I ..... 3
Business Administration 218, Intermediate Accounting I ..... 3
Business Administration 219, Intermediate Accounting II ..... 3
Business Administration 224, Income Tax Accounting ..... 3
Computer Information Systems 108,
Computer Operations-Microcomputing ..... 3
Electives (select six credits from the following list)
Business Administration 150, Job Search Seminar ..... 1
Business Administration 210, Business Correspondence ..... 3
Business Administration 214, Cost Accounting II ..... 3
Business Administration 265, Accounting Co-op I ..... 3
Business Administration 266, Accounting Co-op II ..... 3
Computer Information Systems 100, Introduction to Computer Literacy ..... 3
You should notify your advisor and the co-op coordinator of your intention to take BUSA265 and BUSA 266 before beginning your second-year classes.
*Transferring students are encouraged to take PHED 212 or PHED 214.


## About the Area of Study

With a two-year degree in accounting, you will be prepared for entry-level accounting positions such as bookkeeper, accounts payable, payroll clerk, or assistant to an accountant.

You will compute, classify, record, and verify financial data and develop and maintain financial records.

## Associate Degree

Upon completion of the 61-credit Accounting program, you may apply for an Associate in Applied Science degree.

## Transfer Options

This program transfers to Siena Heights University's Bachelor of Accounting program; however if you plan to transfer to another fouryear business school, you should enroll in the Business Administration program listed on page 41.

## Sample Program Sequences <br> An advisor will help you make necessary

 changes to this recommended sequence.
## Associate's Degree Program

| Semester 1 | Semester 2 | Semester 3 |
| :--- | :--- | :--- |
| BUSA 201 | BUSA 202 | BUSA 203 |
| CIS 108 | BUSA 212 | BUSA 205 |
| ENGL 101 | COMM 101 | BUSA 218 |
| MATH 122 | ENGL 103 | BUSA 224 |
| PHED 200 | PSYC 201 | Elective |
|  |  |  |
| Semester 4 | Semester 5 |  |
| BUSA 204 | Elective |  |
| BUSA 213 |  |  |
| BUSA 219 |  |  |
| POSC 101 or |  |  |
| HIST 201 |  |  |
| Elective |  |  |



Business, Management Marketing \& Technology

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.
Degree Requirements Credit Hours
College Requirements

* English 101, English Composition ..... 3
English 102, English Composition, or English 103, Report Writing ..... 3
*** Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health ..... 1 or 3
Political Science 101, National Government, or Political Science 102, State Governments, or History 201, American History to 1865, or History 202, American History 1865 to Present ..... 3
Support Courses
General Electives, Group I, II, or III (see page 29) ..... 6
Communication 101, Introduction to Public Speaking ..... 3
Major Requirements
Business Administration 100, Business Mathematics ..... 3
Business Administration 101, Business Accounting I ..... 3
* Business Administration 210, Business Correspondence ..... 3
* Computer Information Systems 123, Spreadsheet Skills ..... 1
* Computer Information Systems 223, Advanced Spreadsheet Skills ..... 1
* Office Information Systems 114, Intermediate Keyboarding ..... 3
* Office Information Systems 125, Records Management. ..... 3
* Office Information Systems 201, Advanced Keyboarding. ..... 3
* Office Information Systems 211, Office Procedures ..... 3
* Office Information Systems 213, Word Processing Transcription ..... 3
* Office Information Systems 217, Introduction to Word Processing Applications. ..... 3
* Office Information Systems 218, Advanced Word Processing Applications ..... 3
** Office Information Systems 261, Office Co-op I ..... 3
Program Electives (Select 7 credit hours)Business Administration 103, Introduction to Business3
** Business Administration 150, Job Search Seminar ..... 1
Business Administration 209, Principles of Marketing ..... 3
Business Administration 211 , Principles of Management ..... 3
** Computer Information Systems 106, Operating Systems ..... 3
** Computer Information Systems 111, Database Concepts ..... 3
Office Information Systems 262, Office Co-op II. ..... 3
* Required for certificate program** Elective for certificate program - select 2-3 credit hours***Transferring students are encouraged to take PHED 212 or PHED 214.

Some courses may be offered in an Open Entry/Open Exit (OE/OE) format. See course description.

You should notify your advisor and the co-op coordinator of your intention to take OIS 261 or OIS 262 before beginning your second-year classes.

## About the Area of Study

The Administrative Office Systems program teaches you office skills, computer software, keyboarding, and other general business functions. As an administrative office assistant, you may perform a variety of administrative activities such as scheduling appointments, organizing and maintaining files, managing projects, producing correspondence, working with customers, training new staff, conducting research on the Internet, and operating office technologies. Typical places of employment include business, professional, and government-type firms.

## Certificate \& Degree Options

By completing the 61-credit program in Administrative Office Systems, you may apply for an Associate in Applied Business degree.

## Transfer Options

This degree transfers to Siena Heights University's Bachelor of Applied Science program. Work with your LMC advisor if you wish to transfer to another college or university.

## Sample Course Sequence

An advisor will help you make necessary changes to these recommended sequences.

## Certificate Program <br> Semester 1 Semester 2 <br> ENGL 101 OIS 125 <br> OIS 114 CIS 223 <br> BUSA 210 OIS 201 <br> OIS 211 OIS 213 <br> OIS 217 OIS 218 <br> CIS 123 Program Elective

## Associate's Degree Program

| Semester 1 | Semester 2 | Semester 3 |
| :--- | :--- | :--- |
| ENGL 101 | BUSA 100 | BUSA 101 |
| OIS 114 | ENGL 102 or | CIS 223 |
| BUSA 210 | ENGL 103 | OIS 125 |
| OIS 211 | CIS 123 | POSC 101 or |
| OIS 217 | OIS 201 | POSC 102 or |
|  | OIS 218 | HIST 201 or |
|  | PHED 200 | HIST 202 <br> General Elective |
| Semester 4 |  | Program Elective |

## Semester 4

OIS 213
OIS 261
COMM 101
General Elective
Program Elective

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully Complete recommended classes. See course descriptions for specific course requirements.

## Certificate Concentrations

## Basic Education Requirements: (MSU Certificates + LMC Degrees)

MSU
AT 293 Professional Internship in Ag. Technology ..... MSU-3 min.
HRT 215 Plant Industries Seminar ..... MSU - 1
PLP 200 Plant Diseases and Their Pathogens. ..... MSU - 3
ENT 110, Applied Entomology for Ornamentals \& Turf ..... MSU-3
CSS 210, Fundamentals of Soil \& Landscape Science ..... MSU-3
HRT 213, Landscape Maintenance ..... MSU-2
HRT 218, Landscape Irrigation ..... MSU - 3
LMC
Biology 112, Principles of Biology 11 . ..... LMC-4
Chemistry 101, Introductory Chemistry ..... LMC - 4
Business 203, Principles of Economics (Macro) ..... LMC - 3
Computer Information Systems 100, Introduction to Computer Literacy ..... LMC - 3
English 101, English Composition ..... LMC - 3
35 credits
MSU Institute of Agricultural Technology Certificate:
(Concentrations below)
minimum credit requirements (minimum of 24 from MSU credits): ..... 48 credits
Applied Plant Science with concentration in Commercial Horticulture Operations
HRT-208, Pruning and Training of Hort Systems ..... MSU-3
ESA 225, Land \& Environmental Issues in Law ..... MSU - 3
6 credits
Applied Plant Science with concentration in Commercial Turfgrass Operations
CSS-202/203, The World of Turf and Applied Turf Management ..... MSU-2/1
CSS 267, Turfgrass Practices and Strategies ..... MSU-2
ESA 225, Land \& Environmental Issues in Law ..... MSU - 3
8 credits
Applied Plant Science with concentration in Landscape and Nursery
HRT 211, Landscape Plants I ..... MSU - 3
HRT 212, Landscape Plants II ..... MSU - 3
HRT 111 , Landscape Planning \& Design ..... MSU - 39 credits

About the Area of Study<br>The Applied Plant Science Cerrificate - Students completing the basic education requirements may apply for other concentration offerings.<br>This is a new program to be offered at LMC beginning in Winter 2010. Please check the LMC website for updates.

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully Complete recommended classes. See course descriptions for specific course requirements.

## Degree Requirements

## Credit Hours

## College Requirements

| ENGL 101, English Composition | C-3 |
| :---: | :---: |
| English 103, Report Writing, or |  |
| English 102, English Composition | 3 |
| Political Science 101, National Government, or |  |
| Political Science 102, State Governments, or |  |
| History 201, American History to 1865, or |  |
| History 202, American History 1865 to Present ....................................... 3 |  |
| * Physical Education 200, Healthful Living, or |  |
| Physical Education 212, Health and Fitness, or |  |
| Physical Education 214, Personal Health | 1 or 3 |

## Support Courses

PLP 200, Plant Diseases and Their Pathogens. ..... MSU - 3
ENT 110, Applied Entomology for Ornamentals \& Turf ..... MSU-3
CSS 210, Fundamentals of Soil Science ..... MSU-3
BIOL 112 , Principles of Biology II ..... LMC-4
BUSA 203, Principles of Economics (Macro) ..... LMC - 3
CIS 100, Introduction to Computer Literacy ..... LMC-3
AT 293, Professional Internship in Ag. Technology ..... MSU - 3 min
ESA 225, Land \& Environmental Issues in Law ..... MSU - 3
Major
VIN 146, Introduction to Enology ..... VESTA - 3
VIN 148, Winery Sanitation ..... VESTA - 3
VIN 160, Winery Equipment Operation. ..... VESTA - 2
VIN 246, Intermediate Enology ..... VESTA - 3
VIN 257, Fall Wine Production Internship ..... VESTA - 3
VIN 259, Cellar Operations Technology ..... VESTA - 2
VIN 266, Sensory Evaluation ..... VESTA - 3
VIN 268, Wine and Must Analysis ..... VESTA - 3
VIN 210, Intro to Wine Microorganisms ..... VESTA - 3
CHEM 101, Introductory Chemistry ..... LMC - 4
Electives (choose 1)
VIN 111, Intro to Viticulture \& Vineyard Establishment ..... VESTA - 3
VIN 211, Integrated Pest Management ..... VESTA - 3
VIN 293, Soils for Viticulture ..... VESTA - 3

## About the Area of Study

The Applied Plant Science Certificate Concentration in Enology provides students with a solid background in plant science along with the specific expertise and skills needed for careers in the rapidly expanding wine industry, both in Michigan and throughout North America and beyond. The combination of on-line enology courses delivered by experts from throughout the United States, hands-on experience at local wineries and vineyards and the fundamental plant science courses makes the Enology concentration unique and valuable

## Certificate and Degree Options

Graduates of the program receive a Certificate from the MSU Institute of Agricultural Technology. Students can continue their class work to obtain Associates in Applied Science (AAS) from the community college partners in addition to the Certificate from MSU. Should students wish to continue their education, credits will transfer to a bachelors program at MSU.

## Transfer Option

This program is offered only off-campus in southwest Michigan in partnership with Lake Michigan College and in northwest Michigan in partnership with Northwestern Michigan College, West Shore Community College, North Central Michigan College and Kirtland Community College.

## Sample Course Sequence <br> An advisor will help you develop a program

 plan.This is a new program to be offered at LMC beginning in Winter 2010. Please check the LMC website for updates.
t

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully Complete recommended classes. See course descriptions for specific course requirements.

## Degree Requirements

## Credit Hours

## College Requirements

English 102, English Composition.................................................................. 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present ............................................ 3

* Physical Education 200, Healthful Living, or
Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health .............................................. 1 or 3


## Support Courses

HRT 215, Plant Industries Seminar ............................................................MSU - 1
PLP 200, Plant Diseases and their Pathogens .............................................. MSU - 3
ENT 110, Applied Entomology for Ornamentals \& Turf ............................... MSU - 3
CSS 210, Fundamentals of Soil Science ......................................................MSU - 3
HRT 218, Landscape Irrigation .................................................................... MSU - 3
BUSA 203, Principles of Economics (Macro).............................................. LMC - 3
ENGL 101, English Composition .............................................................. LMC - 3
AT 293, Professional Internship in Ag. Technology ................................. MSU - 3 min.
ESA 225, Land \& Environmental Issues in Law............................................ MSU - 3
HRT 208, Pruning and Training of Hort Systems.......................................... MSU - 3

## Major

VIN 111, Intro to Viticulture \& Vineyard Establishment ...............................VESTA - 3
VIN 113, Winter Viticulture Technology ....................................................VESTA - 2
VIN 114, Spring Viticulture Technology.....................................................VESTA - 2
VIN 115, Summer Viticulture Technology ...................................................VESTA - 2
VIN 211 , Integrated Pest Management .......................................................VESTA - 2
VIN 213, Midwest Vineyard Management ................................................VESTA - 2
VIN 293, Soils for Viticulture......................................................................VESTA - 3
BIOL 112, Principles of Biology II.............................................................IMC - 4
CHEM 101, Introductory Chemistry ..........................................................LMC - 4
CIS 100, Introduction to Computer Literacy ...............................................LMC - 3

## Electives

VIN 146, Introduction to Enology, or .......................................................VESTA - 3
VIN 266, Sensory Evaluation
VESTA - 3
*Transferring students are encouraged to take PHED 212 or PHED 214


#### Abstract

About the Area of Study The Applied Plant Science Certificate Concentration in Viticulture provides students with a solid background in plant science along with the specific expertise and skills needed for careers in the rapidly expanding grape industry, supplying grapes for table, juice and wine making. This skill and expertise is in demand in Michigan and throughout North America and beyond. The combination of on-line viticulture courses delivered by experts from throughout the United States, hands-on experience at local vineyards, fresh markets, juice processors, packing plants and wineries and the fundamental plant science courses makes graduates in the Viticulture concentration in high demand.


## Certificate and Degree Options

Graduates of the program receive a Certificate from the MSU Institute of Agricultural Technology. Students can continue their class work to obtain Associates in Applied Science (AAS) from the community college partners in addition to the Certificate from MSU. Should students wish to continue their education, credits will transfer to a bachelors program at MSU.

## Transfer Option

This program is offered only off-campus in southwest Michigan in partnership with Lake Michigan College and in northwest Michigan in partnership with Northwestern Michigan College, West Shore Community College, North Central Michigan College and Kirtland Community College.

## Sample Course Sequence

An advisor will help you develop a program plan.

This is a new program to be offered at LMC beginning in Winter 2010. Please check the LMC website for updates.

Associate in Arts Degree - TRANSFER PROGRAM

Arts and Communication

## Sample Transfer Program

Meeting the 61-credit degree requirement for the Associate in Arts degree is the most typical curriculum for you to follow if you are planning to transfer to an art program at a four-year college or university. A variety of art courses, both studio and history, should also be included as well as working to develop a portfolio. It is essential that you consult with an academic advisor for the specific requirements of the college you plan to attend.
Courses Credit Hours
English 101, English Composition ..... 3
English 102, English Composition ..... 3

* Physical Education 200, Healthful Living, or
Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health ..... 1 or 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present ..... 3
Mathematics 122, Intermediate Algebra (or above) ..... 4
Sociology 101, Principles of Sociology. ..... 3
Art courses
Humanities electives
Science electives
Social Science electives


## Transfer Opportunities

Lake Michigan College has worked with the following universities to develop program guides. These guides ensure that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

## Kendall (Ferris State University) <br> Michigan State University <br> Western Michigan University <br> University of Michigan

If you are interested in attending a school not listed here, please work with an academic advisor to build a program that will meet the requirements of your chosen school.

[^2]
## About the Area of Study

Study and courses in Art can help you develop an appreciation for the visual arts as well as to expand your expertise and understanding in this field. You will study art theory and history, and work directly with a given medium in a studio environment in coursework such as Design, Drawing, Painting, Photography, Printmaking, Weaving, and Sculpture.

If you plan to transfer to a four-year school, you should become aware of the requirements for the freshman and sophomore years at the selected school. Also of great importance will be building a portfolio that represents all of your work prior to transfer. Students who complete this program will receive an Associate in Arts degree. Courses are open to all students.

## Sample Transfer Program


#### Abstract

The following is a sample college transfer program. It is essential that you work with an academic advisor to develop and individualized program that meets the specific requirements of the college you plan to attend.


It is important to begin the science and math sequence as soon as possible to efficiently complete the coursework. Be sure to determine readiness for the math and science courses as many students need to begin with lower level math and science coursework to successfully complete the required courses.

ENGL 101, English Composition ...................................................................... 3

POSC 101, National Government, or
POSC 102, States Governments, or
HIST 201, American History to 1865, or
HIST 202, American History 1865 to Present............................................ 3

* PHED 200, Healthful Living, or

PHED 212, Health and Fitness, or PHED 214, Personal Health ................ 1 or 3
BIOL 108, Basic Human Anatomy and Physiology ............................................ 4
BIOL 205, Human Anatomy ........................................................................... 4
BIOL 206, Human Physiology........................................................................... 4
PHSC 101 Physical Science: Chemistry and Physics ......................................... 4
HEAL 165, Standard First Aid and Personal Safety ......................................... 1.5
HEAL 166, CPR/AED .................................................................................... 1
HOSP 113, Nutrition and Diet Therapy............................................................ 3
MATH 122 or higher ............................................................................... 4 or 5
MATH 216, Intro to Statistics ............................................................................ 3
PHED 146, Total Fitness II............................................................................... 1
PHED 201, Foundations of Physical Education .................................................. 3
PHED 210, Athletic Training........................................................................... 2
PSYC 201, Introduction to Psychology............................................................. 3
PSYC 203, Human Development .................................................................... 3
*Transferring students are encouraged to take PHED 212 or PHED 214.

## Transfer Opportunities

Lake Michigan College has worked with the following universities to develop program guides. These guides ensure that you can work toward a bachelor's degree and get the maximum number of transferable credits at Lake Michigan College. For more information, see the program guides in the advising office.

## About the Area of Study

Athletic training is a health care profession practicing within the domains of prevention; clinical evaluation and diagnosis; immediate care; treatment, rehabilitation and reconditioning; organization and administration; and professional responsibility. "Sports medicine" is often associated with athletic training. It is a popular term that refers to the many individuals and professions that assist with the overall health care of athletes and individuals who are involved with physical activity.

All certified or licensed athletic trainings must have a bachelor's or master's degree from an accredited college or university. Degrees are complementary to accredited athletic training majors and include established academic curricula. Athletic trainers' bachelor's degrees are in pre-medical sciences, kinesiology, exercise physiology, biology, exercise science or physical education.

Central Michigan University Grand Valley State University<br>Michigan State University Eastern Michigan University Western Michigan University University of Michigan

Dr. William Yamokoski, (269) 927-8100, ext.4014, yamokosk@lakemichigancollege.edu Frank Stijnman (269) 927-8100 ext. 5256, stijnman@lakemichigancollege.edu Dr. Melissa Howse-Willard (269) 927-8100 ext. 5194, willard@lakemichigancollege.edu

## Sample Transfer Program

The following is a sample college transfer program. It is essential that you work with an academic advisor to develop an individualized program that meets the specific requirements of the college you plan to attend.

It is important to begin the science and math sequence as soon as possible to efficiently complete the coursework. Be sure to determine readiness for the math and science courses as many students need to begin with lower level math and science coursework to successfully complete the required courses.

## Courses Credit Hours

English 101, English Composition.............................................................. 3
English 102, English Composition. 3

* Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health ............................................ 1 or 3
Political Science 101, National Government, or Political Science 102, State Governments, or History 201, American History to 1865, or History 202, American History 1865 to Present...................................... 3
Mathematics 151, Calculus I ..................................................................... 5
Biology 111, Principles of Biology I............................................................ 4
Biology 112, Principles of Biology II............................................................. 4
Chemistry 111, General Chemistry I........................................................... 4
Chemistry 112, General Chemistry II.......................................................... 4
Social Science electives
Humanities electives
*Transferring students are encouraged to take PHED 212 or PHED 214.


## Transfer Opportunities

Lake Michigan College has worked with the following universities to develop program guides. These guides ensure that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

## Central Michigan University

## Ferris State University

Grand Valley State University
Michigan Technological University
Tuskegee University
University of Michigan
Western Michigan University
If you are interested in attending a school not listed here, please work with an academic advisor to build a program that will meet the requirements of your chosen school.

## About the Area of Study

Biology deals with living organisms and vital processes, including microbial plant and animal life. Your study in Biology may include coursework in areas such as Botany, Zoology, Ecology, Anatomy and Physiology, Cell Biology, Molecular Biology, Biotechnology, Microbiology, and Genetics.

A Biology concentration consists of a minimum of 12 hours of coursework in the discipline. Sixty semester hours of Lake Michigan College credit can be transferred to the Biology major program of any Michigan college or university. You should consult with the Biology advisor to plan their program which best fits the senior college program to which you plan to transfer.

## There is a 61 -credit degree requirement needed for graduation.

# Business Administration 

| Advisor: | Lisa Augustyniak, (269) 927-8171, aug Bob Lane, (269) 927-8100 ext. 5003, la Greg IWaniuk, (269) 927-8100 ext. 2949 Erick Pifer, (269) 927-8100 ext. 5004, p | igancollege.edu college.edu michigancollege.edu ncollege.edu |
| :---: | :---: | :---: |
| Program Prerequisites <br> Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites. |  |  |
| Degree | equirements | Credit Ho |
| College Requirements <br> English 101, English Composition. |  |  |
| English 101, English Composition...... English 102, English Composition, or |  |  |
| Physical Education 212, Health and Fitness, or |  |  |
| Political Sc Politic Histo Histo | nce 101, National Government, or Science 102, State Governments, or 201, American History to 1865, or 202, American History 1865 to Prese |  |

## Support Courses

Mathematics 128, Pre-Calculus Algebra ..................................................... 4
Sociology 101, Principles of Sociology, or
Psychology 201, Introduction to Psychology ............................................... 3
Communication 101, Introduction to Public Speaking*** ................................ 3
Humanities Electives, Group III (See pg. 29) ................................................. 6
Lab Science Elective, Group la or Ib (See pg. 29).......................................... 4

## Major

**Business Administration 103, Introduction to Business, or
Business Administration, approved elective.
.3
Business Administration 201, Principles of Accounting I ................................... 4
Business Administration 202, Principles of Accounting II ................................. 4
Business Administration 203, Principles of Economics (Macro)....................... 3
Business Administration 204, Principles of Economics (Micro)........................ 3
Business Administration 209, Principles of Marketing ...................................... 3
Business Administration 216, Business Statistics ................................................ 3
Business Administration 220, Organizational Behavior ..................................... 3
Computer Information Systems 100,
Introduction to Computer Literacy.................................................................. 3
Computer Information Systems 251, Computer Programming (BASIC).......... 3
*Transferring students are encouraged to take PHED 212 or PHED 214.
**You can substitute an approved elective for BUSA 103. See your advisor for approval.
***Required Humanities to meet MACRAO Agreement.

## About the Area of Study

The Business Administration program is a transfer program that will help you learn business and communication principles that can lead to careers in accounting, economics, finance, general business, management, marketing, human resource administration, and public relations.

## Associate's Degree

This program leads to an Associate in Business Administration degree and prepares you to transfer to a four-year college or university by completing 62 credits needed for graduation.

## Transfer Options

Work with your advisor to develop a program plan that will best transfer to the bachelor degree program of your choice. This program meets MACRAO requirements (see page 26). It is accepted by Siena Heights University toward a Bachelor of Arts in Business Administration Degree. Western Michigan University-Southwest accepts this program toward its Bachelor of Arts in Business Administration.

## Sample Course Sequence

An advisor will help you make necessary changes to this recommended sequence.

## Associate's Degree Program <br> Semester 1 Semester 2 <br> BUSA 103 BUSA 204 <br> BUSA 203 BUSA 216 <br> ENGL 101 ENGL 102 or <br> MATH 128 ENGL 103 <br> SOC 101 or POSC 101 or <br> PSYC 201 POSC 102 or <br> HIST 201 or <br> HIST 202 <br> Lab Science Elective

Semester 3 Semester 4
BUSA 201 BUSA 202
BUSA 209 COMM 101
BUSA 220 CIS 251
CIS $100 \quad$ HUMN Elective
HUMN Elective PHED 200
General Elective


Health
Sciences


Natural Resources and Agriscience

## Sample Transfer Program


#### Abstract

The following is a sample college transfer program. It is essential that you work with an academic advisor to develop an individualized program that meets the specific requirements of the college you plan to attend.


It is important to begin the science and math sequence as soon as possible to efficiently complete the coursework. Be sure to determine readiness for the math and science courses as many students need to begin with lower level math and science coursework to successfully complete the required courses.

## Courses Credit Hours

English 101, English Composition.................................................................. 3
English 102, English Composition.................................................................. 3

* Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health............................................... 1 or 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present........................................ 3
Mathematics 151, Calculus I ........................................................................... 5
Biology 111, Principles of Biology I................................................................. 4
Biology 112, Principles of Biology II.................................................................. 4
Chemistry 111, General Chemistry I............................................................... 4
Chemistry 112, General Chemistry II .............................................................. 4
Chemistry 203, Organic Chemistry I................................................................. 4
Chemistry 204, Organic Chemistry II.............................................................. 4
Physics 201, Engineering Physics I................................................................. 5
Physics 202, Engineering Physics II................................................................. 5
Social Science electives
Humanities electives
*Transferring students are encouraged to take PHED 212 or PHED 214.


## Transfer Opportunities

Lake Michigan College has worked with the following universities to develop program guides. These guides ensure that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

Central Michigan University
Grand Valley State University
Michigan State University
University of Michigan
Western Michigan University
If you are interested in attending a school not listed here, please work with an academic advisor to build a program that will meet the requirements of your chosen school.

## About the Area of Study

Chemistry deals at the atomic level with the material of which the world is composed. As a chemist you will study these materials along with their compositions, structures, and changing properties. You will also develop techniques to apply your knowledge in areas such as agriculture, energy, and medicine. Industry, education, and government offer opportunities for employment in chemistry.

Your high school transcript should show a strong background in mathematics, chemistry, and physics. If not, Lake Michigan College offers the basic courses needed, and an advisor can help to plan a program for success.

The Chemistry program meets the freshman and sophomore requirements in most fouryear institutions although specific course requirements vary. To make sure your credit will transfer to the school of your choice, work with your advisor to help you select transferable courses. There is a 61 -credit degree requirement needed for graduation.

## Sample Transfer Program


#### Abstract

The following is a sample college transfer program. It is essential that you work with an academic advisor to develop an individualized program that meets the specific requirements of the college you plan to attend.


It is important to begin the science and math sequence as soon as possible to efficiently complete the coursework. Be sure to determine readiness for the math and science courses as many students need to begin with lower level math and science coursework to successfully complete the required courses.

## Courses Credit Hours

English 101, English Composition.................................................................. 3
English 102, English Composition.................................................................... 3

* Physical Education 200, Healthful Living, or

Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health ................................................. 1 or 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present ........................................ 3
Mathematics 151, Calculus I ............................................................................ 5
Biology 111, Principles of Biology I................................................................. 4
Biology 112, Principles of Biology II.................................................................. 4
Chemistry 111, General Chemistry I................................................................ 4
Chemistry 112, General Chemistry II ............................................................... 4
Physics 101, General Physics I ...................................................................... 5
Physics 102, General Physics II....................................................................... 5
Humanities electives
Social Science electives
*Transferring students are encouraged to take PHED 212 or PHED 214.

## Transfer Opportunities

Lake Michigan College has worked with the following universities to develop program guides. These guides ensure that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

## National College of Chiropractic <br> Palmer College of Chiropractic

If you are interested in attending a school not listed here, please work with an academic advisor to build a program that will meet the requirements of your chosen school.

## About the Area of Study

A chiropractor is a member of the healthcare profession who treats ailments without the use of drugs or surgery. Most chiropractors enter private practice; others enter chiropractic education.

You can prepare for a chiropractic career by completing a two-year program at Lake Michigan College and transferring credits to a chiropractic college. You should become familiar with the admission requirements of the college you want to attend. The PreChiropractic advisor will assist you in planning a program of study.

Through an agreement with Palmer College of Chiropractic, students who meet specified requirements will receive preferred admission status at that college. There is a 61 -credit degree requirement needed for graduation.

# Communication 

Human Services

## Sample Transfer Program

It is essential that you consult with an advisor for the specific requirements of the college you plan to attend.

## Courses <br> English 101, English Composition Credit Hours <br> 3

English 102, English Composition*Physical Education 200, Healthful Living, or
Physical Education 212, Health and Fitness, orPhysical Education 214, Personal Healthor 3
Political Science 101, National Government, or
Political Science 102, State Governments, orHistory 201, American History to 1865, orHistory 202, American History 1865 to Present3
Communication 101, Introduction to Public Speaking ..... 3
Mathematics 128, Intermediate Algebra (or above) ..... 4
Sociology 101, Principles of Sociology ..... 3
Humanities electives
Science electives
Social Science electives
*Transferring students are encouraged to take PHED 212 or PHED 214.

## Transfer Opportunities

Lake Michigan College has worked with the following universities to develop program guides. These guides ensure that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

## Central Michigan University

Grand Valley State University
Michigan State University
Western Michigan University
University of Michigan
If you are interested in attending a school not listed here, please work with an academic advisor to build a program that will meet the requirements of your chosen school.

## About the Area of Study

Communication provides you with an opportunity to explore the dynamics that govern how humans exchange information both individually and in groups. An education in communication is designed to help you become a communication specialist in marketing, management, sales, media, government, or secondary education.

If you plan to transfer to a four-year institution, you should find out what the freshman and sophomore years' degree requirements are for the school that you want to attend. You should work with a counselor or advisor to plan a program that will transfer. There is a 61-credit degree requirement for graduation.

# Computer Information Systems <br> Level I Information Technology Certificate Program Code 161A Associate in Applied Business Degree - Information Technology Program Code 160A <br> Advisors: Gary Grannell, (269) 927-8100 ext. 5011, grannell@lakemichigancollege.edu Charles Olszewski, (269) 927-8100 ext. 5044, olszewski@lakemichigancollege.edu 

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.
Degree \& Certificate Requirements Credit Hours
College Requirements
English 101, English Composition. ..... 3
English 103, Report Writing ..... 3
History 201, American History to 1865, or History 202, American History 1865 to Present, or Political Science 101, National Government,
Physical Education 200, Healthful Living, or
Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health ..... or 3
Political Science 102, State Governments ..... 3
Support Courses
Mathematics 128, Pre-Calculus Algebra ..... 4
Psychology 201, Introduction to Psychology ..... 3
Communication 101, Introduction to Public Speaking ..... 3
Philosophy 250, Sophomore Seminar in Philosophy, or Philosophy 102 Intro to Logic ..... 3
Business Administration 204, Principles of Economics (Micro) ..... 3
Business Administration 201, Principles of Accounting I. ..... 4
Major Requirements
*Computer Information Systems 106, Intro to Operating Systems ..... 3
*Computer Information Systems 108, Computer Operations, Microcomputing ..... 3
*Computer Information Systems 111, Database Concepts ..... 3
*Computer Information Systems 118, Basic Web Design ..... 3
*Computer Information Systems 140, Computer Networking Fundamentals ..... 3
Computer Information Systems 145, Computer Programming. COBOL 1 ..... 3
Computer Information Systems 155, Comparative Operating Systems ..... 3
Computer Information Systems 200, PC Hardware ..... 3
Computer Information Systems 261, Co-op 1 ..... 3
Electives (Select 6 credit hours)
Computer Information Systems 150, Network Routing ..... 3
Computer Information Systems 156, Practical Computer Security ..... 3
Computer Information Systems 208, Adv. Microcomputer Applications. ..... 3
Computer Information Systems 242, Windows Server ..... 3
Computer Information Systems 245, Computer Programming. COBOL 2 ..... 3
Computer Information Systems 250, Advanced Topics, CIS ..... 4
Computer Information Systems 251, Computer Programming. BASIC ..... 3
Computer Information Systems 254, Computer Programming. C. ..... 3
Computer Information Systems 255, Structured Query Language ..... 3
Computer Information Systems 260, Computer Programming. Visual BASIC ..... 3
Computer Information Systems 264, Computer Programming. C++ ... ..... 3
Computer Information Systems 265, Computer Programming. Visual BASIC 2 ..... 3

* Indicates courses needed for Level I certificate.** Transferring students are encouraged to take PHED 212 or PHED 214.

You should notify your advisor and the co-op coordinator of your intention to take CIS 261 before beginning your second-year classes.

## About the Area of Study

The CIS Information Technologies option emphasizes the overall business support function of computer information systems. It can lead to careers as database managers and computer support specialists.

## Associate's Degree

When you complete the 63-credit program, you may apply for an Associate in Applied Business degree.

## Transfer Options

Lake Michigan College has a special agreement with Davenport University that articulates this degree with Davenport's Bachelor of Computer Information Systems and Bachelor of Computer Gaming and Simulation programs.

## Sample Course Sequence

An advisor will help you make necessary changes to these recommended sequences.

## Level I Certificate Program

Semester 1 Semester 2

| CIS 106 | CIS 111 |
| :--- | :--- |
| CIS 108 | CIS 118 |

CIS 140
CIS 118

## Associate's Degree Program

Semester 1 Semester 2
ENGL 101 ENGL 103
BUSA 204 BUSA 201
COMM 101 CIS 111
CIS 106 CIS 108
CIS 145 CIS 200
PHED 200
Semester 3 Semester 4
MATH 128 Elective
PSYC 201 PHIL 250
CIS 140 CIS 261
CIS 155 CIS 118
Elective POSC 101 or
POSC 102 or
HIST 201 or
HIST 202

Level I certificate is 15 credit hours.
Program code 16la.

# Computer Information Systems 

Level I Certificate PC and Network Technician Program Code 161B
Associate in Applied Business Degree - Networking Program Code 160B Certificate of Achievement - Cisco Program Code 165
Advisors: Gary Grannell, (269) 927-8100 ext. 5011, grannell@lakemichigancollege.edu Charles Olszewski, (269) 927-8100 ext. 5044, olszewski@lakemichigancollege.edu

Business, Management Marketing \& Technology

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.

## Degree \& Certificate Requirements Credit Hours College Requirements

English 101, English Composition3
English 103, Report Writing ..... 3
History 201, American History to 1865, or
History 202, American History 1865 to Present, orPolitical Science 101, National Government, orPolitical Science 102, State Governments3
** PHED 200, Healthful Living, or PHED 212, Health and Fitness, or PHED 214, Personal Health ..... 1 or 3
Support Courses
MATH 128 , Pre-Calculus Algebra ..... 4
PSYC 201, Introduction to Psychology ..... 3
COMM 101, Introduction to Public Speaking ..... 3
PHIL 250, Sóphomore Seminar in Philosophy ..... 3
BUSA 204, Principles of Economics (Micro). .4
Major Requirements
\#* $^{*} 100$ Intro to computer literacy, or
\#* $^{*} 100$ Intro to computer literacy, or
\#*CIS 106 Intro to Operating Systems, or
\#*CIS 108 Computer Operations, Microcomputing ..... 3
\#*CIS 140 Computer Networking Fundamentals ..... 3
\#*CIS 155 Comparative Operating Systems.
\#*CIS 156 Practical Security ..... 3
\#*CIS 200 PC Hardware ..... 3
\#*CIS 226 Cisco INTRO review\#CIS 228 Switched and Routed Networks3
\#CIS 242 Windows Servers ..... 3
Electives (Select 9 credit hours) ..... 3
\#CIS 227 Cisco ICND 2/CCNA review
\#CIS 227 Cisco ICND 2/CCNA review
CIS 241 Switching and Routing ..... 3
CIS 261 Co-op I
3
CIS 250 Advanced Topics, CIS
Database
CIS 124 Database skills ..... 1
CIS 224 Advanced Database skills ..... 1
CIS 111 Database Concepts ..... 3
Web programming
CIS 118 Basic Web Design3
CIS 219 Advanced Web Design ..... 3
CIS 220 Web Programming3
Game Design
CIS 117 Intro Game Design Theory ..... 3
CIS 136 Game Design II ..... 3
Programming
CIS 25 Computer Programming - BASIC ..... 3
CIS 254 Computer Programming - C ..... 3
CIS 255 Structured Query Language
3
IS 260 Computer Programming - Visual Basic ..... 3

* Indicates courses needed for Level I Certificate** Transferring students are encouraged to take PHED 212 or PHED 214.\# Indicates courses needed for Certificate of Achievement - Cisco

About the Area of Study
The CIS Networking option emphasizes the networking software, hardware, and preparation for certification exams. It can lead to careers in network and computer systems administration working with local area networks, wide area networks, Internet and Intranet systems, and network segments.

## Associate's Degree

When you complete the 63-credit program, you may apply for an Associate in Applied Business degree.

## Transfer Options

The sample course sequence includes courses that may transfer only as elective credit. It is essential that you work with a counselor or academic advisor to develop an individual program that meets the specific requirements of the college/university you plan to attend.

## Sample Course Sequence

An advisor will help you make necessary changes to these recommended sequences.

## Level I Certificate Program <br> PC and Network Technician

| Semester 1 | Semester 2 |
| :--- | :--- |
| CIS 100, 106, or 108 | CIS 155 |
| CIS 140 | CIS 200 |
| CIS 156 | CIS 226 |

Cisco Certificate of Achievement

| Semester 1 | Semester 2 |
| :--- | :--- |
| CIS 100, 106, or 108 | CIS 155 |
| CIS 140 | CIS 200 |
| CIS 156 | CIS 226 |
| Semester 3 | Semester 4 |
| CIS 228 | CIS 227 |
| CIS 242 | ENGL 101 |

## Associate Degree Program

| Semester 1 | Semester 2 |
| :--- | :--- |
| ENGL 101 | ENGL 103 |
| CIS 100, 106 or 108 | CIS 155 |
| CIS 140 | CIS 200 |
| CIS 156 | CIS 226 |
| College requirement, | College requirement, course <br> course support, or <br> elective |
| Support, or elective |  |
| CIS 228 | Semester 4 |
| CIS 242 College requirement, course <br> College requirement,  <br> course support, or  <br> elective  |  |

Computer Information Systems -
Level I Certificate Programming Option Program Code 161 C Associate in Applied Business Degree - Programming Option Program Code 160C

Advisors: Gary Grannell, (269) 927-8100 ext. 5011, grannell@lakemichigancollege.edu Charles Olszewski, (269) 927-8100 ext. 5044, olszewski@lakemichigancollege.edu

Business, Management Marketing \& Technology

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.
Degree \& Certificate Requirements Credit Hours
College Requirements
English 101, English Composition. ..... 3
English 103, Report Writing ..... 3
History 201, American History to 1865, or History 202, American History 1865 to Present, or Political Science 101, National Government, or Political Science 102, State Governments ..... 3
** Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health ..... or 3
Support Courses
Math 128, Pre-Calculus Algebra ..... 4
Psychology 201, Introduction to Psychology ..... 3
Communication 101, Introduction to Public Speaking ..... 3
Philosophy 250, Sophomore Seminar in Philosophy. ..... 3
Business 204, Principles of Economics (Micro) ..... 3
Business 201, Principles of Accounting I ..... 4
Major Requirements
*CIS 106, Intro to Operating Systems ..... 3
*CIS 108, Computer Operations, Microcomputing ..... 3
CIS 145, Computer Programming - COBOL I ..... 3
CIS 155, Comparative Operating Systems ..... 3
CIS 200, PC Hardware ..... 3
*CIS 251, Computer Programming - BASIC ..... 3
CIS 254, Computer Programming - C ..... 3
*CIS 260, Computer Programming - Visual BASIC ..... 3
CIS 261, Co-op I. ..... 3
Electives (select 6 credit hours)
CIS 111, Database Concepts ..... 3
CIS 118, Basic Web Design ..... 3
CIS 140, Computer Networking Fundamentals ..... 3
CIS 156, Practical Computer Security ..... 3
CIS 208, Adv. Microcomputer Applications ..... 3
CIS 242, Windows Server ..... 3
CIS 245, Computer Programming - COBOL II. ..... 3
CIS 250, Advanced Topics, CIS ..... 4
CIS 255, Structured Query Language ..... 3
*CIS 264, Computer Programming - C++ ..... 3
CIS 265, Computer Programming - Visual BASIC 2 ..... 3

* Indicates courses needed for Level I certificate.
** Transferring students are encouraged to take PHED 212 or PHED 214.You should notify your advisor and the co-op coordinator of your intention to takeCIS 261 before beginning your second-year classes.


## About the Area of Study

The CIS Programming option will allow you to develop skills in a variety of popular programming languages. Programmers can be found in almost every industry including telecommunications, financial institutions, educational institutions, government agencies, and management firms.

## Associate's Degree \& Certificate Options

When you complete the 63-credit program, you may apply for an Associate in Applied Business degree.

## Transfer Options

The sample course sequence includes courses that may transfer only as elective credit. It is essential that you work with a counselor or academic advisor to develop an individual program that meets the specific requirements of the college you plan to attend.

## Sample Course Sequence

An advisor will help you make necessary changes to these recommended sequences.

## Level I Certificate Program

| Semester 1 | Semester 2 |
| :--- | :--- |
| CIS 106 | CIS 251 |
| CIS 108 |  |

Semester 3 Semester 4

## CIS 260 <br> CIS 264

## Associate's Degree Program

Semester 1 Semester 2
ENGL 101 ENGL 103
BUSA 204 BUSA 201
COMM 101 CIS 260
CIS 106 CIS 108
CIS 251 CIS 200
PHED 200
Semester 3
Semester 4
MATH 128
Elective
PSYC 201 PHIL 250
CIS $145 \quad$ CIS 261
CIS 155 CIS 254
Elective POSC 101 or POSC 102 or HIST 201 or HIST 202

Level I certificate is 15 credit hours. Program code 161c.

# Computer Information Systems - 

Level I Certificate Web Option Program Code 161D<br>Associate in Applied Business Degree - Web Option<br>Program Code 160D<br>Advisors: Gary Grannell, (269) 927-8100 ext. 5011, grannell@lakemichigancollege.edu Charles Olszewski, (269) 927-8100 ext. 5044, olszewski@lakemichigancollege.edu



Business, Management Marketing \& Technology

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.
Degree \& Certificate Requirements Credit Hours
College Requirements
English 101, English Composition ..... 3
English 103, Report Writing ..... 3
History 201, American History to 1865, or
History 202, American History 1865 to Present, or Political Science 101, National Government, or Political Science 102, State Governments ..... 3
** PHED 200, Healthful Living, or
PHED 212, Health and Fitness, or PHED 214, Personal Health* ..... 1 or 3
Support Courses
Math 128, Pre-Calculus Algebra ..... 4
Psychology 201, Introduction to Psychology ..... 3
Communication 101, Introduction to Public Speaking ..... 3
Philosophy 102, Intro to Logic, or Philosophy 250, Sophomore Seminar in Philosophy ..... 3
Business 204, Principles of Economics (Micro) ..... 3
Business 201, Principles of Accounting I ..... 4
Major Requirements
*CIS 106, Intro to Operating Systems ..... 3
*CIS 108, Computer Operations, Microcomputing ..... 3
*CIS 118, Basic Web Design ..... 3
*CIS 219, Professional Web Design ..... 3
CIS 220, Web Programming ..... 3
CIS 200, PC Hardware ..... 3
CIS 221 Server-Side Scripting ..... 3
*CIS 251, Computer Programming - BASIC. ..... 3
CIS 261, Co-op 1 ..... 3
Electives (Select 6 credit hours)
CIS 111, Database Concepts ..... 3
CIS 145, Computer Programming - COBOL 1 ..... 3
CIS 150, Practical Computer Security ..... 3
CIS 156, Practical Computer Security ..... 3
CIS 208, Adv. Microcomputer Applications ..... 3
CIS 242, Windows Server ..... 3
CIS 245, Computer Programming - COBOL 2 ..... 3
CIS 250, Advanced Topics, CIS ..... 4
CIS 254, Computer Programming - C ..... 3
CIS 255, Structured Query Language ..... 3
CIS 260, Computer Programming - Visual BASIC ..... 3
CIS 264, Computer Programming - C++ ..... 3
CIS 265, Computer Programming - Visual BASIC 2 ..... 3

* Indicates courses needed for Level I certificate.
** Transferring students are encouraged to take PHED 212 or PHED 214.
You should notify your advisor and the co-op coordinator of your intention to takeCIS 261 before beginning your second-year classes.
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## About the Area of Study

The CIS Web option will allow you to develop skills in a variety of popular Web design and programming languages. Web Designers and Programmers can be found in almost every industry including telecommunications, financial institutions, educational institutions, government agencies, and management firms. Web Design and Maintenance are regular features on any business whether large or small.

## Associate's Degree \& Certificate Options

When you complete the 63-credit program, you may apply for an Associate in Applied Business degree.

## Transfer Options

The sample course sequence includes courses that may transfer only as elective credit. It is essential that you work with a counselor or academic advisor to develop an individual program that meets the specific requirements of the college/university you plan to attend.

## Sample Course Sequence

An advisor will help you make necessary changes to these recommended sequences.

## Level I Certificate Program

| Semester 1 | Semester 2 <br> CIS 106 | Semester 3 <br> CIS 108 |
| :--- | :--- | :--- |
| CIS 251 |  |  |
| CIS 219 |  |  |

Associate's Degree Program
Semester 1 Semester 2
ENGL 101 ENGL 103
BUSA 204 BUSA 201
COMM 101 CIS 118
CIS 106 CIS 251

CIS 108 CIS 200
PHED 200
Semester 3 Semester 4
MATH 128 Elective
PSYC 201 PHIL 250
CIS 219 CIS 261
CIS 220 CIS 221
Elective POSC 101 or
POSC 102 or
HIST 201 or
HIST 202

Level I certificate is 15 credit hours.
Program code 161d.
Computer Science for Western Michigan University - Transfer Program
Associate in Applied Science Program Code 170
Advisors: James Larson, (269) 927-8100 ext. 5148, larson@lakemichigancollege.edu Mike Durren, (269) 927-8100 ext. 5012, durren@lakemichigancollege.edu

This program is specifically designed to meet the program requirements for the Bachelor of Science in Computer Science program at Western Michigan University.

## Program Prerequisites

Proficiency in Reading, English and Mathematics. There are prerequisites for individual courses.

## College Degree Requirements Credit Hours <br> English 101, English Composition ................................................................... 3

English 103, Report Writing .......................................................................... 3
Political Science 101, National Government, or Political Science 102, State Governments, or History 201, American History to 1865, or History 202, American History 1865 to Present........................................ 3
Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health3
Program RequirementsChemistry 111, General Chemistry I4
Communications 101, Public Speaking ..... 3
Computer Information Systems 251, Computer Programming - Basic ..... 3
Computer Information Systems 254, C Programming ..... 3
Engineering 103, Beginning Engineering Drawing ..... 4
Mathematics 151, Calculus I ..... 5
Mathematics 201, Calculus II ..... 5
Mathematics 202, Calculus III ..... 5
Mathematics 252, Differential Equation ..... 4
Philosophy 102, Intro to Logic ..... 3
Physics 201, Engineering Physics I ..... 5
Physics 202, Engineering Physics II ..... 5
Art, Drama, Humanities, or Music Group III elective ..... 3

Business, Management Marketing \& Technology

## Sample Course Sequence

An advisor will help you make necessary changes to this recommended sequence.

## Associate Degree Program

Semester 1
ENGL 101
MATH 151
PHYS 201
Government or History

## Semester 2

ENGL 103
MATH 201
PHYS 202
COMM 10
Semester 3
MATH 202
CHEM 111
ENGR 103
CIS 251
PHED 212 or 214

## Semester 4

MATH 252
PHIL 102
CIS 254
COMM 101
Art, Drama, Humanities, or Music Group III elective

# Corrections, Probation, \& Parole <br> Associate in Applied Science Degree Program Code 386 <br> Advisor: Robert Lane, (269) 927-8100 ext. 5003, lane@lakemichigancollege.edu 4 ens 

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.
Degree Requirements Credit Hours
College Requirements
English 101, English Composition. ..... 3
English 103, Report Writing ..... 3
** Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health ..... 1 or 3
Political Science 101, National Government, or
Political Science 102, State Governments, orHistory 201, American History to 1865, orHistory 202, American History 1865 to Present3
Support Courses
Mathematics, Group Ic, Elective, or
Business Administration 100, Business Mathematics ..... 4/3
Psychology 201, Introduction to Psychology .....  3
Office Information Systems 102, Keyboarding II, or Elective ..... 2
Sociology 101, Principles of Sociology. ..... 3
Sociology 201, Modern Social Problems ..... 3
Communication 101, Introduction to Public Speaking ..... 3
General Elective ..... 3/4
Major Requirements
*Corrections, Probation \& Parole 160, Introduction to Corrections. ..... 3
*Corrections, Probation \& Parole 161, Institutional Operations ..... 3
*Corrections, Probation \& Parole 162, Institutional Populations ..... 3
*Corrections, Probation \& Parole 163, Concepts of Rehabilitation ..... 3
*Corrections, Probation \& Parole 164, Legal Issues in Corrections ..... 3
Law Enforcement 250, Juvenile Delinquency and Behavior ..... 3
Law Enforcement 251, Seminar in Criminal Justice and Public Safety .....  3
Law Enforcement 252, Criminal Procedures ..... 3
Corrections, Probation \& Parole 264, Case Studies in Rehabilitation ..... 3
*Program Elective ..... 3

You may select a Law Enforcement or Corrections, Probation, \& Parole course as a program elective. Before taking Seminar in Criminal Justice and Public Safety, please see an advisor.
*Courses needed for the Corrections Officer Academic Certificate program.
** Transferring students are encouraged to take PHED 212 or PHED 214.
To be hired as a Corrections Officer, you must comply with the following State of Michigan requirements:

1. Before being hired, an applicant must pass a physical fitness test given by the Michigan Department of Corrections (MDOC).
2. An applicant must have acceptable vision, hearing, general good physical health, and pass a drug screen.
3. Any individual who has been convicted of a felony or domestic violence cannot be hired and may be considered ineligible for the program. Consideration cannot be given to an applicant who is on probation, has outstanding warrants, or has a controlled substance (drug) related conviction in any jurisdiction, including drug-related military discharges.
4. An applicant who has been convicted of any misdemeanor will not be eligible for employment until one year after satisfactory completion of any sentence imposed, including probation.

## About the Area of Study

This program trains you for jobs in corrections, probation, parole, and related fields. The certificate program is for those interested in an entry-level position in corrections. These are typically found countr, state, or federal jails, prisons, or juvenile centers.

The associate's degree program is a transfer program. If you are interested in a career in probation or parole, you will need to pursue a bachelor's degree. Positions in these fields are also found at the local, state, and federal levels.

## Certificate \& Degree Program

Upon completion of the 15 -credit Corrections, Probation, \& Parole program, you may apply for a Corrections Officer Academic Cerificate through the Business department.

Upon completion of the 61 -credit hour Corrections, Probation, and Parole program, you may apply for an Associate in Applied Science Degree.

## Transfer Options

The sample course sequence includes courses that may transfer only as elective credit. It is essential that you work with a counselor or academic advisor to develop an individualized program that meets the specific requirements of the College you plan to attend.

## Sample Course Sequence

An advisor will help you make necessary changes to these recommended sequences.

## Certificate Program

| Semester 1 | Semester 2 |
| :--- | :--- |
| CORR 160 | CORR 162 |
| CORR 161 | CORR 164 |
| CORR 163 |  |

## Associate's Degree Program

| Semester 1 | Semester 2 |
| :--- | :--- |
| ENGL 101 | ENGL 102 |
| COMM 101 | SOC 101 |
| CORR 160 | CORR 162 |
| CORR 161 | CORR 264 |
| OIS 102 | CORR 164 |
| Elective |  |
| Semester 3 | Semester 4 |
| PSYC 201 | POSC 101 |
| SOC 201 | LAWE 250 |
| CORR 163 | LAWE 251 |
| Program Elective | LAWE 252 |
| PHED 200 | General Elective |
| MATH |  |

# Dental Assisting 

Certificate of Achievement - Dental Assisting program Code 231
Associate Degree in Applied Science Program Code 230
Advisor: $\quad \begin{aligned} & \text { Deborah Burch, (269) 927-8100 ext. 5100, burch@lakemichigancollege.edu } \\ & \text { Student Services Academic Advising appointments (269) 927-8128 }\end{aligned}$ (20)

Sciences

## Program Prerequisites

Proficiency in reading, english and mathematics or the assessment or successfully complete recommended classes. See course description of specific course requirments This program has special admission procedures and limited enrollment. Please see specific health science program prerequisites on page 14. An academic advisor will help determine your eligibility and recommend courses designed to prepare you for this program.

## Challenge Examinations

The following pathways allow individuals to obtain a Certificate of Achievement in Dental Assisting from LMC. See the Dental Assisting advisor to determine which pathway is best for you. Pathway I is the traditional entry for any student.
Pathway II is available to dental assisting completers from high school career centers or other educational facilities that have articulation agreements with the LMC Dental Assisting program. Pathway III grants up to 33.5 advanced standing credits to current Certified Dental Assistants (CDAs). Pathway IV is available for non-credentialed working dental assistants. This pathway allows students to challenge each course, up to 27 credits, by successfully completing the final exam

## Degree Requirements

Credit Hours
Dental Assisting core courses are the same for the certificate and associate's degree programs. The courses required for the associate's degree may be taken prior, during or after completion of the major courses.

## College Requirements

English 101, English Composition................................................................... 3
English 102, English Composition, or English 103, Report Writing.3

* Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health or 3
Political Science 101, National Government, or Political Science 102, State Governments, or History 201, American History to 1865, or History 202, American History 1865 to Present ............................................ 3


## Support Courses

Biology 108, Basic Anatomy and Physiology, or Biology 205, Human Anatomy4
Psychology 201, Introduction to Psychology ..... 3
Communication 101, Introduction to Public Speaking ..... 3
**Health 165, Standard First Aid and Personal Safety ..... 1.5
**Health 166, CPR/AED ..... 1
**Business Administration 150, Job Search Seminar ..... 1
Psychology 204, Child Development and Personality, orPsychology 205, Interpersonal Relations, orSociology 101, Principles of Sociology3
Major
**Dental Assisting 165, Introduction to Dental Assisting ..... 3
**Dental Assisting 166, Chairside I. ..... 3
**Dental Assisting 167, Chairside II ..... 3
**Dental Assisting 168, Chairside III ..... 3
**Dental Assisting 169, Chairside IV ..... 3
**Dental Assisting 170, Introduction to Business Assisting ..... 3
**Dental Assisting 171, Introduction to Dental Radiography ..... 4
**Dental Assisting 172, Medical Issues in Dental Office ..... 2
**Dental Assisting 173, Clinical I ..... 6
**Dental Assisting 174, RDA I ..... 3
**Dental Assisting 175, RDA II ..... 3
**Dental Assisting 176, Clinical II ..... 5

* Transferring students are encouraged to take PHED 212 or PHED 214** Classes required for Certificate program


## Sample Course Sequence Certificate (Full-time)

| Semester 1 | Semester 2 | Semester 3 |
| :--- | :--- | :--- |
| *DENT 165 | DENT 169 | DENT 173 |
| DENT 166 | DENT 170 | DENT 174 |
| DENT 167 | +DENT 171 | DENT 175 |
| DENT 168 | DENT 172 | DENT 176 |
| **BUSA 150 | HEAL 165 |  |
|  | HEAL 166 |  |

## Certificate (Part-time)

| Semester 1 | Semester 2 Semester 3 <br> *DENT 165 DENT 167 <br> DENT 166 DENT 168 169 <br>  **BUSA 150 | DENT 170 |
| :--- | :--- | :--- |
| Semester 4 | Semester 5 | Semester 6 |
| +DENT 171 | DENT 174 | DENT 173 |
| DENT 172 | DENT 175 | DENT 176 |

DENT 172
DENT 176
HEAL 165
HEAL 166

## Associate Degree Program (Full-fime)

Semester 1 Semester 2 Semester 3
BIOL 108 or 205 **BUSA 150 COMM 101
*DENT 165 DENT 167 DENT 170
DENT 166 DENT 168 +DENT 171
ENGL 101 ENGL 102 or 103 POSC 101 or 102, or
PHED 200 DENT 169 HIST 201 or 202

## Semester 4 Semester 5

DENT 172 DENT 173
DENT 174 DENT 176
DENT 175 SOCI Elective
HEAL 166
HEAL 165
PSYC 201

## Associate Degree (Part-time)

Semester 1
*DENT 165
BIOL 108 or 205

## Semester 4

DENT 168
COMM 101

Semester 7
DENT 171
PSYC 201

## Semester 10

DENT 173
DENT 175

Semester 2
DENT 166
ENGL 101

## Semester 5

DENT 169
POSC 101 or HIST 201 or 202
HIST 201 or 202

* Transitional courses can be taken concurrently
** Course only offered during Fall/Winter semester
+ These courses to all employed Dental Assistants


## Program Accreditation

The program in Dental Assisting is accredited by the Commission on Dental Accreditation of the American Dental Association, a specialized accrediting body recognized by the Council on Postsecondary Accreditation and by the U.S. Department of Education. The program is also accredited by the Michigan State Board of Dentistry.
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## Program Prerequisites

To be eligible to take Lake Michigan College courses, you must demonstrate proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. Prerequisites to admission to KVCC: Reading ASSET score of 42, Math ASSET score of 37 , asterisked (*) in classes listed below, Chemistry - 1 year of high school chemistry. You must have prerequistes completed to submit your application to KVCC Dental Hygiene program. Applications are accepted beginning September 1 for entry consideration for the following fall. Early applications will be returned.

## Requirements

Credit Hours

## College Requirements (taken at LMC)

* English 101, English Composition ..... 3
English 102, English Composition, or Communication 100, Introduction to Public Speaking ..... 3
* Biology 101, Biological Science (or equivalent) ..... 4
* Biology 108, Basic Human Anatomy \& Physiology ..... 4
* Biology 210, Microbiology ..... 4
* Chemistry 105, Fundamentals of Inorganic Chemistry ..... 4
Hospitality 113 , Nutrition and Diet Therapy ..... 3
Political Science 101, National Government, or Political Science 102, State Governments ..... 3
Psychology 201, Introduction to Psychology ..... 3
Sociology 101, Principles of Sociology. ..... 3
Physical Education, Elective ..... 2
Health 166, CPR/AED ..... 1
Major Requirements (at KVCC)
See KVCC program information at kvcc.edu/careerguides/displayprograms


#### Abstract

About the Area of Study Lake Michigan College offers the first year of a three-year Associate in Applied Science degree in Dental Hygiene in cooperation with Kalamazoo Valley Community College (KVCC). The program is fully accredited by the American Dental Association. It will train you to provide specialized intraoral technical service and prevention-oriented educational services.

You may apply for admission at LMC and KVCC simultaneously .


As a dental hygienist, you are likely to work in a private dental office where you will clean patients' teeth and provide other preventive dental care. Other places of employment can include school programs and public health care service agencies.

## Associate's Degree \& Certification

Graduates receive an Associate in Applied Science degree from KVCC and are eligible to write the National Board Examination and Regional Board Examination for licensure. Upon successful completion of these exams, a graduate is registered and qualified to practice as a dental hygienist in Michigan and many other states, plus the District of Columbia.

## Sample Course Sequence

An advisor will help you make necessary changes to this recommended sequence.

Program Prerequistes at LMC

| Semester 1 | Semester 2 |
| :--- | :--- |
| ${ }^{\text {*ENGL 101 }}$ | ENGL 102 |
| *BIOL 101 | COMM 101 |
| *CHEM 105 | ${ }^{\text {*BIOL 108 }}$ |
| SOC 101 | *BIOL 210 |
| POSC 101 or 102 | PSYC 201 |
| HOSP 113 | HEAL 166 |
|  | PHED Elective |

Years 2 and 3
Taken at Kalamazoo Valley Community College
(*) Prerequisites classes must be taken before application is submitted

Advisor: Dr. William Yamokoski, (269) 927-8100 ext. 5153, yamokosk@lakemichigancollege.edu

## Sample Transfer Program

The following is a sample college transfer program. It is essential that you work with an academic advisor to develop an individualized program that meets the specific requirements of the college you plan to attend.

It is important to begin the science and math sequence as soon as possible to efficiently complete the coursework. Be sure to determine readiness for the math and science courses as many students need to begin with lower level math and science coursework to successfully complete the required courses.

## Courses Credit Hours

English 101, English Composition............................................................. 3
English 102, English Composition................................................................. 3

* Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health $\qquad$
Political Science 101, National Government, or Political Science 102, State Governments, or History 201, American History to 1865, or History 202, American History 1865 to Present...................................... 3
Mathematics 151, Calculus ...................................................................... 5
Biology 111, Principles of Biology I............................................................ 4
Biology 112, Principles of Biology II............................................................ 4
Chemistry 111, General Chemistry I.......................................................... 4
Chemistry 112, General Chemistry II ......................................................... 4
Chemistry 203, Organic Chemistry I.......................................................... 4
Chemistry 204, Organic Chemistry II.......................................................... 4
Physics 101, General Physics I ................................................................... 5
Physics 102, General Physics II.................................................................. 5
Social Science electives
Humanities electives
* Transferring students are encouraged to take PHED 212 or PHED 214.


## Iransfer Opportunities

Lake Michigan College has worked with the following universities to develop program guides. These guides ensure that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

## University of Detroit <br> University of Michigan

If you are interested in attending a school not listed here, please work with an academic advisor to build a program that will meet the requirements of your chosen school.

## About the Area of Study

You can complete the minimum requirements for admission to dentistry school at Lake Michigan College. Since the requirements vary among dental schools, you should become familiar with the specific ones for the dental school in which you are interested. Most dental schools prefer candidates with bachelor's degrees.

Sixty semester hours of the Pre-Dentistry program can be transferred to similar programs at Michigan colleges and universities. The Pre-Dentistry advisor will assist you in planning you individualized program.

A career in dentistry can lead to running your own practice as a general practitioner. However, you may wish to specialize in orthodontics, oral and maxillofacial surgery, pediatric dentistry, periodontics, prosthodontics, endodontics, public health dentistry, oral pathology, or oral and maxillofacial radiology. There is a 61 -credit degree requirement needed for graduation.

Advisor: Elizabeth Zak, (269) 927-8100 ext. 5134, bzak@lalemichigancollege.edu Student Services Academic Advising (269) 927-8128

Sthens

Health Sciences

## Program Prerequisites

This program has special admission procedures based on a program specific GPA ranking and limited enrollment. A certain number of seats will be reserved for certified medical imaging professionals. See the specific admission requirements for Health Science students on page 14. Contact Student Services Academic Advising at ext. 8128 or the Health Science office at ext. 5090 for complete details. An academic advisor will help you determine prerequisites that are required and designed to prepare you for training in the program.

## Prerequisite Courses <br> Biology 101, Biological Science, or

 Biology 108, Basic Human Anatomy........................................................ 4 Prerequisite for Biology 205; see course descriptionBiology 205, Human AnatomyPhysical Science 101, Physical Science: Chemistry and Physics4Health 165, Standard First Aid5
Health 166, CPR/AED ..... 1
Psychology 201, Introduction to Psychology ..... 3
Reading 110, Medical Terminology ..... 1
Math 122, Intermediate Algebra ..... 4
Degree Requirements ..... Credit Hours
English 101, English Composition ..... 3
English 102, English Composition ..... 3
Political Science 101, National Government, or Political Science 102, State Governments, or History 201, American History to 1865, or History 202, American History 1865 to Present ..... 3
Physical Education 200, Healthful Living, or
Physical Education 212, Health and Fitness, orPhysical Education 214, Personal Health*
$\qquad$1 or 3
Major Requirements
Diagnostic Medical Sonography 100,
Introduction to Diagnostic Medical Sonography ..... 3
Diagnostic Medical Sonography 101, General Sonography I Abdomen ..... 4
Diagnostic Medical Sonography 102, General Sonography I OB/GYN ..... 4
Diagnostic Medical Sonography 103, Sonography Lab Applications ..... 3
Diagnostic Medical Sonography 104, Clinical Experience A. ..... 2
Diagnostic Medical Sonography 200, General Sonography II Abdomen ..... 3
Diagnostic Medical Sonography 201, General Sonography II OB/GYN ..... 3
Diagnostic Medical Sonography 202, Sonography Lab Applications II ..... 2
Diagnostic Medical Sonography 203, Sonographic Physics I ..... 3
Diagnostic Medical Sonography 204, Clinical Experience B ..... 3
Diagnostic Medical Sonography 214, Clinical Experience C ..... 5
Diagnostic Medical Sonography 224, Clinical Experience D ..... 5
Diagnostic Medical Sonography 213, Sonographic Physics II ..... 3
Diagnostic Medical Sonography 230, Introduction to Vascular Sonography \& Lab Applications ..... 4
Diagnostic Medical Sonography 234, Clinical Experience E ..... 3
Elective
Diagnostic Medical Sonography 240, Sonographic Registry Review option ..... 2

## Diagnostic Medical Sonography Program Handbook

In addition to the rules stated in this catalog, Ultrasound students are required to abide by the rules stated in the Diagnostic Medical Sonography Program Handbook.

## About the Area of Study

 The Diagnostic Medical Sonography program trains you to become a diagnostic medical sonographer. This 18 -month program includes one spring semester and two summer semesters of course work. You will obtain clinical experience at local healthcare facilities in addition to formal classroom instruction provided on campus.Diagnostic medical sonographers are employed in hospitals, clinics, commercial $x$-ray laboratories and physician offices where they use sophisticated imaging equipment that is dependent upon sound wave technology. In addition to preparing patients and operating equipment, diagnostic medical sonographers also work with radiologists, referring physicians and hospital management to assure quality patient care and diagnosis.
Diagnostic medical sonographers also serve in capacities such as departmental managers, technical advisors and applications specialists, sales and service for Ullrasound equipment manufacturers, and as educators.

## Program Accreditation

The program is in the process of obtaining accreditation. Non-medical imaging professionals need to see the program advisor for more details.

## Associate's Degree

Upon completion of the 60 -credit Diagnostic Medical Sonography program, graduates may apply for an Associate in Applied Science degree.

## Certification Examination

Qualified graduates are eligible to sit for the ARDMS or ARRT ultrasound credentialing exam.

## Sample Course Sequence

An advisor will help you make necessary changes to this recommended sequence.

## Associate Degree Program

| Semester 1 | Semester 2 | Semester 3 |
| :--- | :--- | :--- |
| DMSO 100 | ENGL 101 | ENGL 102 |
| PHED 200 | DMSO 101 | DMSO 200 |
|  | MRIT 102 | DMSO 201 |
|  | MRIT 103 | DMSO 202 |
|  | MRIT 104 | DMSO 203 |
|  |  | DMSO 204 |
| Semester 4 | Semester 5 | Semester 6 |
| DMSO 214 DMSO 224 | DMSO 213 |  |
| POSC 101 or |  | DMSO 230 |
| 102 or HIST |  | DMSO 234 |
| 201 or 202 |  | DMSO 240 | and Industrial Technology

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.

## Degree Requirements Credit Hours

## College Requirements

* English 101, English Composition .............................................................. 3
* English 102, English Composition ................................................................ 3
** Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health $\qquad$
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present3


## Support Courses

* Mathematics 100, Applied Math. ..... 4
* Mathematics 110, Technical Math I ..... 4
* Physics 110, Technical Physics ..... 4
Major
Engineering 103, Beginning Engineering Drawing ..... 4
* Drafting \& Design 102, Machine Drawing ..... 3
Drafting \& Design 201, Tool Design I ..... 4
Drafting \& Design 202, Tool Design II. ..... 3
* Drafting \& Design 203, Descriptive Geometry. ..... 3
Drafting \& Design 207, CAD-Mechanical Design ..... 3
Drafting \& Design 208, CAD-Mechanical Detailing ..... 3
Drafting \& Design 211, Machine Design ..... 3
* Machine Tool 110, Machine Tool I. ..... 3
* Machine Tool 220, Pressworking of Metals ..... 3
* Manufacturing 111, Manufacturing Processes I ..... 3
Electives (Select 5 credit hours for associate degree)
Manufacturing 120, Fundamentals of Programmable Controllers .....  2
Manufacturing 122, Introduction to Robotics ..... 1
Industrial Maintenance Technology 204, Basic Hydraulics \& Pneumatics ..... 2
Industrial Maintenance Tech 206, Hydraulic and Pneumatic Circuitry ..... 2
Machine Tool 140, Intro to NC/CNC. ..... 2
Drafting \& Design 205, Architectural Drawing ..... 4
* Classes required for Cerificate program
** Transferring students are encouraged to take PHED 212 or PHED 214.

This program articulates with the Occupational Education Studies (OES) program at Western Michigan University to prepare certified vocational teachers for high schools, technical centers and community colleges. If you think you might be interested in teaching, please discuss the OES program with your advisor. You can learn more about the OES program by visiting www.wmich.edu/gus/occupnedn.html

## About the Area of Study

The Drafting \& Design program will train you to be a draftsman or a designer in the manufacturing industry. The industrial focus of the program provides you with training in product drafting, jig and fixture design, and computer-aided drafting and design. You will learn to prepare technical drawings and plans used in production work to build manufactured products and machinery.

## Certificate and Degree Options

The 38 -credit Drafting \& Design certificate program prepares you to work as a helper for engineers and designers in preparing blueprints, tracings, and inking of master. Credits can be applied to the associate's degree program.

The 62-credit Associate in Industrial Technology degree in Drafting \& Design will qualify you to work directly with a design engineer on conceptual product design and layout.

## Transfer Options

The Drafting and Design associate's degree transfers to Ferris State University's Manufacturing Engineering Technology and Product Design Engineering Technology programs. See your advisor for more details.

## Sample Course Sequence

An advisor will help you make necessary changes to these recommended sequences.

## Certificate Program

| Semester 1 | Semester 2 |
| :--- | :--- |
| ENGR 103 | DRAF 203 |
| MANU 111 | DRAF 201 |
| MACH 110 | MATH 110 |
| MATH 100 | PHYS 110 |
| ENGL 101 | ENGL 103 |

## Associate's Degree Program

Semester 1 Semester 2
ENGR 103 DRAF 203
MACH 110 MANU 111
MATH 100 MATH 110
ENGL 101 ENGL 103
DRAF 102

## Semester 3 Semester 4

DRAF 201 DRAF 202
DRAF 207 DRAF 208
POSC 101 or DRAF 211
POSC 102 or MACH 220
HIST 201 or PHYS 110
HIST 202 Electives
PHED 200
Electives
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Level I Certificate - Drafting \& Design Program Code 324
(24) aptarien
$5-2:$
为
Engineering/Manufacturing and Industrial Technology

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successful completion of the recommended classes. See course descriptions for specific course prerequisites.
Level I Drafting and Design CertificateMajor Courses
Engineering 103, Beginning Engineering Drawing ..... 4
Drafting \& Design 102, Machine Drawing ..... 3
Drafting \& Design 207, CAD-Mechanical Design ..... 3
Drafting \& Design 208, CAD-Mechanical Detail. ..... 3
Total Credit Hours ..... 13

## Level I Certificate Option

Upon completion of the listed program, you will earn a Level I Certificate of Completion. This Level I certificate is a pathway into the Associate in Industrial Technology degree in Drafting and Design and General Technology. It is also a pathway into the Skilled Trades Technology associate degree (must be a registered apprentice with the Department of Labor.)

See page 55 for Drafting and Design associate degree and Certificate of Achievement.
Early Childhood Education

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific prerequisites.

This program satisfies requirements for MACRAO

## Degree Requirements

Credit Hours

## College Requirements

**English 101, English Composition ............................................................... 3
English 102, English Composition, or English 103, Report Writing $\qquad$3

History 201, American History to 1865, or History 202, American History 1865 to Present, or Political Science 101, National Government, or Political Science 102, State Governments3

* Physical Education 200, Healthful Living, or
Physical Education 212, Health and Fitness, orPhysical Education 214, Personal Health1 or 3
Support Courses
Group I Lab Science (see page 29 for choices) ..... 4
** Mathematics 122, Intermediate Algebra ..... 4
** Psychology 201, Introduction to Psychology ..... 3
** Psychology 203, Human Development. ..... 3
Group III Humanities (see page 29 for choices) ..... 9
** Art 111, Art Education ..... 3
** Computer Information Systems 100, Introduction to Computer Literacy ..... 3
Major
** Early Childhood 110, Introduction to Early Childhood Education ..... 3
** Early Childhood 111 , Early Childhood Learning Environment. ..... 2
**Early Childhood 112, Curriculum Planning For Young Children ..... 3
**Early Childhood 113, Guiding Young Children's Social Development ..... 3
Early Childhood 210, Curriculum Planning For Young Children II ..... 3
Early Childhood 211 , Diversity in Early Childhood Education. ..... 3
Early Childhood 212, Administration of Early Childhood Programs ..... 3
Early Childhood 213, Current Issues in Early Childhood Education ..... 3
* Transferring students are encouraged to take PHED 212 or PHED 214.
** Classes required for Certificate program
This program does not lead to certification in Elementary Education


## About the Program

Lake Michigan College offers individuals interested in working with young children an opportunity to acquire the knowledge and skills to work effectively in child care settings and prepare for the Childhood Development Associate (CDA) credential awarded through the Council for Early Childhood Professional Recognition. Early Childhood Education (ELCH) classes teach students to become caregivers who can work with children (infants through primary school-age) in home day care, child care centers, and public educational facilities.

Individuals who learn to implement developmentally appropriate programs can offer high-quality, professional child care. These caregivers meet the specific needs of diverse groups of children and work together with parents and other adults to nurture children's physical, social, emotional, intellectual, language and aesthetic growth.

## Sample Program Sequences

## Certificate Program

| Semester 1 | Semester 2 |
| :--- | :--- |
| CIS 100 | ART 111 |
| ENGL 101 | ELCH 112 |
| ELCH 110 | ELCH 113 |
| CLCH 111 | MATH 101 |
| PSYC 201 | PSYC 203 |
| PHED 200 |  |

## Associate Degree Program

| Semester 1 | Semester 2 | Semester 3 |
| :---: | :---: | :---: |
| CIS 100 | ART 111 | ELCH 210 |
| ENGL 101 | ELCH 112 | ELCH 211 |
| ELCH 110 | ELCH 113 | ENGL 102 or |
| ELCH 111 | MATH 122 | ENGL 103 |
| PSYC 201 | PSYC 203 | Humanities - 3 cr . |
| PHED 200 |  | Science-4 cr. |
| Semester 4 |  |  |
| ELCH 212 |  |  |
| ELCH 213 |  |  |
| HIST 201 or 202, or POSC 201 or 102 |  |  |
| Humanities - 6 cr . |  |  |



Human Services

## Sample Transfer Program

Courses required beyond the following vary from each university or college elementary education program. It is essential that you consult with an academic advisor for the specific requirements of the college you plan to attend. The Elementary Education major requires students to identify the school they wish to transfer to by the end of their first full time year at the community college. Students must work closely with an elementary education advisor at the beginning of their LMC coursework.

It is important to begin the science and math sequence as soon as possible to efficiently complete the coursework. Be sure to determine readiness for the math and science courses as many students need to begin with lower level math and science coursework to successfully complete the required courses.

## Colleges of Education:

Andrews University
Central Michigan University
Eastern Michigan University
Ferris State University
Grand Valley State University Indiana University South Bend
Michigan State University
Northern Michigan University
University of Michigan
Western Michigan University
Western Michigan University Southwest

If you are interested in attending a school not listed here, please work with an academic advisor to build a program that will meet the requirements of your chosen school.

## About the Area of Study <br> Education is recommended if you would

 like to teach in an elementary school or if you are interested in becoming a teacher's aid. Elementary school teachers are the first crucial link between students and their formal education. Teachers create an appropriate student learning environment and then evaluate the effectiveness of that learning. There is a 61-credit degree requirement needed for graduation.Education - ElementaryAssociate in Applied Science Degree -Elementary Education WMU Southwest
Program Prerequisites
Proficiency in reading, English and mathematics on the assessment or successfully completerecommended classes. In addition, proficiency in Intermediate Algebra. See coursedescriptions for specific prerequisites.
College Requirement
ENGL 101, English Composition ..... Credit Hours
ENGL 102, English Composition ..... 3
POSC 101, National Government ..... 3
Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health ..... 1 or 3
Support Courses
HIST 201, American History to 1865, or HIST 202, American History 1865 to Present ..... 3
PSYC 201, Introduction to Psychology ..... 3
PSYC 203, Human Development, or PSYC 204, Child Development and Personality ..... 3
DRAM 201, Introduction to Theatre, or HUMN 201, Into to the Arts ..... 3
MajorElementary Education Program Requirements:BIOL 170, Life Science for Elementary Teachers3
PHSC 180, Physical Science for Elementary Teachers I ..... 3
PHSC 190, Earth Science for Elementary Teachers I ..... 3
Select two of the following courses:
BIOL 270, Life Science for Elementary Teachers IIPHSC 280, Physical Science for Elementary Teachers IIPHSC 290, Earch Science for Elementary Teachers II6
MATH 200, Math for Elementary Teachers ..... 4
MATH 210, Geometry for Elementary Teachers ..... 4
MATH 265, Probability and Statistics for Middle School Teachers ..... 4
ART 111, Art Education or MUSI 200, Music for the Elementary Teacher ..... 3
HIST 204, Modern East Asia ..... 3
Minor Electives - Select four credit hours within major
Science Minor
CHEM 111, General Chemistry I ..... 4
PHYS 104, Introduction to Sky and Solar System ..... 4
Select one course not taken above:
BIOL 270, Life Science for Elementary Teachers II, or
PHSC 280, Physical Science for Elementary Teachers II, or PHSC 290, Earth Science for Elementary Teachers II. ..... 3
Elementary Language Arts
ENGL 208, Literary Interpretation, or ENG 215, Poetry, or ENG 216, Literature of Black America ..... 3
Social Studies
GEOG 101, World Regional Geography ..... 4
Select one course not taken above:
HIST 201, American History to 1865, or HIST 202,American History 1865 to Present.3

## About the Program

Lake Michigan College and Western Michigan University have formed a partnership that allows you to earn an Associate in Applied Science from LMC and a Bachelor of Science Degree in Elementary Education on the LMC campus. Freshman and sophomore level courses are offered by LMC. Junior and senior level courses are taught at Western Michigan University-Southwest, on the Napier Avenue Campus.

## Transfer Options

This program is highly specialized to meet transfer requirement at WMU Southwest campus ONLY. It does not transfer to Elementary Education requirements at other universities. If you plan to pursue Elementary Education at a campus other than WMU Southwest, you need to work with an LMC advisor during your first semester to build the program that will meet your transfer needs. There is a 61 credit degree requirement needed for graduation.

## Admission Requirement to WMU Elementary Education Program

- 35 credit hours with a 2.5 GPA or better
- Completion of PSYC 203 or 204 with a "C" or better (You must take PSYC 201 first)
- Successful completion of the Michigan Test for Teacher Cerifification
- Apply to Western Michigan University one year in advance and be admitted
- Apply to the WMU College of Education and be admitted


## LMC Courses

Students must meet with an LMC advisor to develop their plan of study before their first semester.

## Sample Transfer Program

Meeting the degree requirements for the Associate in Arts or Associate in Science degree is the most typical curriculum if you are planning to transfer to a secondary education program at a four-year college or university. It is essential that you consult with an academic advisor for the specific requirements of the college you plan to attend.

## Transfer Opportunities

Courses required beyond the following vary from each university or college elementary education program. It is essential that you consult with an academic advisor for the specific requirements of the college you plan to attend vary from each university and college of education. The Elementary Education major requires students to identify the school they wish to transfer to by the end of their first full time year at the community college. Students must work closely with an elementary education advisor at the beginning of their LMC coursework.

## About the Area of Study

Lake Michigan College faculty and advisors provide guidance in planning the selection of elective courses to meet your individualized need. Advisors have information about course prerequisites and diagnostic testing.

## Career Opportunities

As a secondary school teacher, you can work in high schools or community colleges and specialize in a specific subject, such as English, Spanish, mathematics, history, or biology. You also can teach subjects that are career-oriented, such as health care, business, auto repair, communications, and technology. There is a 61-credit degree requirement needed for graduation.
Energy Production Technology/ChemistryAssociate in Industrial Technology Degree Program Code 370Advisors: Zomar Peter, (269) 926-2124, peter@lakemichigancollege.eduKen Flowers, (269) 927-8100 ext. 3032, flowers@lakemichigancollege.edu

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course requirements.
Degree Requirements Credit Hours
College Requirements
English 101, English Composition. ..... 3
English 103, Report Writing, or English 102, English Composition ..... 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present ..... 3
** Physical Education 200, Healthful Living, or
Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health ..... or 3
Support Courses
Mathematics 122, Intermediate Algebra ..... 4
Mathematics 128, Pre-Calculus Algebra ..... 4
Physics 110, Technical Physics. ..... 4
Chemistry 101, Introductory Chemistry ..... 4
Humanities credit ..... 3
Major
Energy Production Technology 116 Chem and RP Fundamentals ..... 3
Energy Production Technology 200 Reactor Plant Materials ..... 3
*Energy Production Technology 205 Energy/Power Field Experience. ..... 2
Energy Production Technology 210 Radiation Detection and Protection Fund ..... 3
Energy Production Technology 225 Reactor Theory, Safety and Design ..... 3
Energy Production Technology 230 Heat Transfer and Fluid Flow ..... 3
Energy Production Technology 235 Power Plant Components. ..... 3
Concentration Major
Chemistry 111, General Chemistry I ..... 4
Chemistry 112, General Chemistry II ..... 4
Electives (select minimum of 4 credits)Trade Related/Apprentice 138, Industrial Safety. 1
Energy Production Technology 100 Nuclear Industry Fundamental Concepts. ..... 3
Energy Production Technology 111 Intro. to Energy Production and Distribution. 3Energy Production Technology 120 Power Plant Drawings3

* All field experience must be scheduled through an advisor.

[^3]Engineering/Manufacturing and Industrial Technology

## About the Area of Study

A solid knowledge of science and math, strong communication skills, the ability to problem solve and attention to detail are critical to being successful in the energy production field. After completion of the associate's degree program at LMC, those who enter the field should expect a career that will involve ongoing, extensive on-the-job training. In fact, local nuclear plants can often invest up to $\$ 2$ million per employee in training during an entire career.

## Certificate and Degree Options

When you complete the 61 credit Energy Production Technology program, you may apply for an Associate in Industrial Technology degree in Energy Production Technology.

## Transfer Option

The Energy Production Technology associate's degree program transfers to Siena Heights Nuclear Technology program. See your advisor for more information.

## Sample Course Sequence

An advisor will help you develop course program sequences.
Energy Production Technology/CraftsAssociate in Industrial Technology Degree Program Code 371
Advisors: Zomar Peter, (269) 926-2124, peter@lakemichigancollege.edu
Ken Flowers, (269) 927-8100 ext. 3032, flowers@lakemichigancollege.edu

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course requirements.
Degree Requirements Credit Hours
College Requirements
English 101, English Composition. ..... 3
English 103, Report Writing, or English 102, English Composition ..... 3
Political Science 101, National Government, or Political Science 102, State Governments, or History 201, American History to 1865, or History 202, American History ..... 4
Support courses
Mathematics 122, Intermediate Algebra ..... 4
Mathematics 128, Pre-Calculus Algebra ..... 4
Physics 110, Technical Physics ..... 4
Chemistry 101, Introductory Chemistry ..... 4
Humanities credit ..... 3

* Physical Education 200, Healthful Living, or
Physical Education 212, Health and Fitness, orPhysical Education 214, Personal Healthor 3
Major
Energy Production Technology 116, Chem and RP Fundamentals ..... 3
Energy Production Technology 200, Reactor Plant Materials ..... 3
*Energy Production Technology 205, Energy/Power Field Experience. ..... 2
Energy Production Technology 210, Radiation Detection and Protection Fund ..... 3
Energy Production Technology 225, Reactor Theory, Safety and Design ..... 3
Energy Production Technology 230, Heat Transfer and Fluid Flow ..... 3
Energy Production Technology 235, Power Plant Components ..... 3
Electives (select minimum of 4 credits)Trade Related/Apprentice 138, Industrial Safety 1
Energy Production Technology 100, Nuclear Industry Fundamental Concepts ..... 3
Energy Production Technology 111, Intro. to Energy Production and Distributio ..... 3
Energy Production Technology 120, Power Plant Drawings ..... 3
All field experience must be scheduled through an advisor.

[^4]Engineering/Manufacturing and Industrial Technology

## About the Area of Study

A solid knowledge of science and math, strong communication skills, the ability to problem solve and attention to detail are critical to being successful in the energy production field. After completion of the associate's degree program at LMC, those who enter the field should expect a career that will involve on-going, extensive on-the-job training. In fact, local nuclear plants can often invest up to $\$ 2$ million per employee in training during an entire career.

## Certificate and Degree Options

When you complete the 61 credit Energy Production Technology program, you may apply for an Associate in Industrial Technology degree in Energy Production Technology.

## Transfer Option

The Energy Production Technology associate's degree program transfers to Siena Heights Nuclear Technology program. See your advisor for more information.

## Sample Course Sequence

An advisor will help you develop course program sequences.
Energy Production Technology/HPRP

Advisors: Zomar Peter, (269) 926-2124, peter@lakemichigancollege.edu Ken Flowers, (269) 927-8100 ext. 3032, flowers@lakemichigancollege.edu

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course requirements.
Degree Requirements Credit Hours
College Requirements
English 101, English Composition ..... 3
English 103, Report Writing, or
English 102, English Composition ..... 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present ..... 3

* Physical Education 200, Healthful Living, or
Physical Education 212, Health and Fitness, orPhysical Education 214, Personal Health1 or 3
Support Courses
Mathematics 122, Intermediate Algebra ..... 4
Mathematics 128, Pre-Calculus Algebra ..... 4
Physics 110, Technical Physics ..... 4
Chemistry 101, Introductory Chemistry ..... 4
Humanities credit ..... 3
Major
Energy Production Technology 116, Chem and RP Fundamentals ..... 3
Energy Production Technology 200, Reactor Plant Materials ..... 3
*Energy Production Technology 205, Energy/Power Field Experience. ..... 2
Energy Production Technology 210, Radiation Detection and Protection Fund ..... 3
Energy Production Technology 225, Reactor Theory, Safety and Design ..... 3
Energy Production Technology 230, Heat Transfer and Fluid Flow ..... 3
Energy Production Technology 235, Power Plant Components ..... 3
Concentration Major
Energy Production Technology 223, Radiation Monitoring ..... 3
Energy Production Technology 233, Dosimetry ..... 3
Energy Production Technology 249, Safety Response ..... 3
Electives (select minimum of 4 credits)
Trade Related/Apprentice 138, Industrial Safety ..... 1
Energy Production Technology 100, Nuclear Industry Fundamental Concepts ..... 3
Energy Production Technology 111, Intro. to Energy Production and Distribution ..... 3Energy Production Technology 120, Power Plant Drawings3
All field experience must be scheduled through an advisor.

[^5]
## 6

 ran?Engineering/Manufacturing and Industrial Technology

## About the Area of Study

A solid knowledge of science and math, strong communication skills, the ability to problem solve and attention to detail are critical to being successful in the energy production field. After completion of the associate's degree program at LMC, those who enter the field should expect a career that will involve ongoing, extensive on-the-job training. In fact, local nuclear plants can often invest up to $\$ 2$ million per employee in training during an entire career.

## Certificate and Degree Options

When you complete the 62 credit Energy Production Technology program, you may apply for an Associate in Industrial Technology degree in Energy Production Technology.

## Transfer Option

The Energy Production Technology associate's degree program transfers to Siena Heights Nuclear Technology program. See your advisor for more information.

## Sample Course Sequence

An advisor will help you develop course program sequences.

# Energy Production Technology/Power Plant Associate in Industrial Technology Degree Program Code 373 <br> Advisors: Zomar Peter, (269) 926-2124, peter@lakemichigancollege.edu Ken Flowers, (269) 927-8100 ext. 3032, flowers@lakemichigancollege.edu <br> Engineering/Manufacturing and Industrial Technology 

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course requirements.
Degree Requirements Credit Hours
College Requirements
English 101, English Composition. ..... 3
English 103, Report Writing, or
English 102, English Composition ..... 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present ..... 3

* Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health ..... or 3
Support Courses
Mathematics 122, Intermediate Algebra ..... 4
Mathematics 128, Pre-Calculus Algebra ..... 4
Physics 110, Technical Physics ..... 4
Chemistry 101, Introductory Chemistry ..... 4
Humanities credit ..... 3
Major
Energy Production Technology 116, Chem and RP Fundamentals ..... 3
Energy Production Technology 200, Reactor Plant Materials ..... 3
*Energy Production Technology 205, Energy/Power Field Experience. ..... 2
Energy Production Technology 210, Radiation Detection and Protection Fund ..... 3
Energy Production Technology 225, Reactor Theory, Safety and Design ..... 3
Energy Production Technology 230, Heat Transfer and Fluid Flow ..... 3
Energy Production Technology 235, Power Plant Components ..... 3
Concentration Major
Energy Production Technology 270 Mechanical Operations. ..... 3
Energy Production Technology 274 Electrical and HVAC Operations ..... 3
Energy Production Technology 278 Operation of Power Plant Components ..... 3
Electives (select minimum of 4 credits)Trade Related/Apprentice 138, Industrial Safety. 1
Energy Production Technology 100 Nuclear Industry Fundamental Concepts. ..... 3
Energy Production Technology 111 Intro. to Energy Production and Distribution ..... 3
Energy Production Technology 120 Power Plant Drawings ..... 3
All field experience must be scheduled through an advisor.

[^6]
## About the Area of Study

A solid knowledge of science and math, strong communication skills, the ability to problem solve and attention to detail are critical to being successful in the energy production field. After completion of the associate's degree program at LMC, those who enter the field should expect a career that will involve on-going, extensive on-the-job training. In fact, local nuclear plants can often invest up to $\$ 2$ million per employee in training during an entire career.

## Certificate and Degree Options

When you complete the 62 credit Energy Production Technology program, you may apply for an Associate in Industrial Technology degree in Energy Production Technology.

## Transfer Option

The Energy Production Technology associate's degree program transfers to Siena Heights Nuclear Technology program. See your advisor for more information.

## Sample Course Sequence

An advisor will help you develop course program sequences.

# Engineering (Pre) 

Associate in Science Degree - TRANSFER PROGRAM
Program Code 082
Advisor: Mike Durren, (269) 927-8100 ext. 5012, durren@lakemichigancollege.edu
Engineering/Manufacturing and Industrial Technology

## Sample Transfer Program

The following is a sample college transfer program. It is essential that you work with an academic advisor to develop an individualized program that meets the specific requirements of the college you plan to attend.

It is important to begin the science and math sequence as soon as possible to efficiently complete the coursework. Be sure to determine readiness for the math and science courses as many students need to begin with lower level math and science coursework to successfully complete the required courses.
Courses Credit HoursEnglish 101, English Composition3
English 102, English Composition ..... 3

* Physical Education 200, Healthful Living, or
Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health ..... 1 or 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present ..... 3
Mathematics 151, Calculus I ..... 5
Mathematics 201, Calculus II ..... 5
Mathematics 202, Calculus III ..... 5
Mathematics 252, Differential Equations ..... 3
Physics 201, Engineering Physics I ..... 5
Physics 202, Engineering Physics II ..... 5
Humanities electives
Social Science electives


## Transfer Opportunities

Lake Michigan College has worked with the following universities to develop program guides. These guides ensure that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

## Grand Valley State University Michigan State University Michigan Technological University University of Michigan

If you are interested in attending a school not listed here, please work with an academic advisor to build a program that will meet the requirements of your chosen school.

[^7]
## About the Area of Study

If you study Engineering with the goal of transferring to a senior college for the bachelor's degree, you will find that the curriculum is intensively mathematical and has challenging performance requirements.

This transferable program includes the requirements of the University of Michigan and most Michigan colleges of engineering. Since differences in required curricula among some of the colleges are increasing, you should consult with the four-year college or university of your choice as well as your faculty advisor. There is a 61 -credit degree requirement needed for graduation.
Advisor: William Sprunk, (269) 927-8100 ext. 5172, sprunk@lakemichigancollege.edu
Joseph Eklund, (269) 927-8100 ext. 5174, eklund@lakemichigancollege.edu
Charlie Jordan, (269) 927-8100 ext. 5184, jordan@lakemichigancollege.edu
Stephen Jukuri, (269) 927-8100 ext. 5185, sjukuri@lakemichigancollege.edu
Jenny Schanker, (269) 927-8100 ext. 5183, schanker@lakemichigancollege.edu
Janice Zerfas, (269) 927-8100 ext. 5182, zerfas@lakemichigancollege.edu

## Sample Transfer Program

The following is a sample college transfer program. It is essential that you work with an academic advisor to develop an individualized program that meets the specific requirements of the college you plan to attend.
Courses Credit Hours
English 101, English Composition
3
English 102, English Composition

* Physical Education 200, Healthful Living, or
Physical Education 212, Health and Fitness, orPhysical Education 214, Personal Health1 or 3
Political Science 101, National Governments, or
Political Science 102, State Government, or History 201, American History to 1865, or History 202, American History 1865 to Present ..... 3
Social Science, Group II Elective ..... 6
Humanities, Group III Elective ..... 9
Biology Elective ..... 4
Chemistry, Physics, Physical Science elective ..... 4
Mathematics 122, Intermediate Algebra or higher ..... $3 / 4$
English Electives
English 201, Gender Studies ..... 3
English 205, An Introduction to Shakespeare ..... 3
English 206, Modern Drama ..... 3
English 211, United States Literature II ..... 3
English 214, Children's Literature. ..... 3
English 215, Poetry ..... 3
English 216, Literature of Black America ..... 3
English 217, Creative Writing ..... 3
English 220, Contemporary Fiction ..... 3
*Transferring students are encouraged to take PHED 212 or PHED 214.


## Transfer Opportunities

If you are planning to transfer to a four-year college, you should become familiar with your chosen school's requirements. See your advisor for assistance in planning your individualized program of study.

## About the Area of Study

Students pursuing a bachelor's degree in English will be able to complete their first two years of college with courses at Lake Michigan College. All courses in English and other recommended courses are transferable to other institutions in Michigan and elsewhere.

Associate in Science Degree - TRANSFER PROGRAM
Program Code 066
Advisor: Robert Schodorf, (269) 927-8100 ext. 5075, schodorf@lakemichigancollege.edu

Nature Resources and Agriscience

## Sample Transfer Program

The following is a sample college transfer program. It is essential that you work with an academic advisor to develop an individualized program that meets the specific requirements of the college you plan to attend.

It is important to begin the science and math sequence as soon as possible to efficiently complete the coursework. Be sure to determine readiness for the math and science courses as many students need to begin with lower level math and science coursework to successfully complete the required courses.

## Courses

English 101, English Composition.................................................................... 3
English 102, English Composition 3

* Physical Education 200, Healthful Living, or

Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health ................................................. 1 or 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present......................................... 3
Mathematics 151, Calculus I .......................................................................... 5
Biology 111, Principles of Biology I..................................................................... 4
Biology 112, Principles of Biology II................................................................. 4
Chemistry 111, General Chemistry I............................................................... 4
Chemistry 112, General Chemistry II .............................................................. 4
Chemistry 203, Organic Chemistry I (elective) ................................................. 4
Humanities electives
Social Science electives

* Transferring students are encouraged to take PHED 212 or PHED 214.


## Transfer Opportunities

Lake Michigan College has worked with the following university to develop program guides. These guides ensure that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

## Lake Superior State University

If you are interested in attending a school not listed here, please work with a counselor or academic advisor to build a program that will meet the requirements of your chosen school.

## About the Area of Study

Environmental Science is the study of physical, chemical, and biotic factors that act upon an organism or ecological community and determine its form and survival. A wide variety of courses in the sciences, humanities, and social sciences are available.

If you have selected the four-year college or university to which you plan to transfer, you should consult with the Environmental Science advisor to develop an individualized program that will be accepted by your transfer school.

Advisor: Robert Lane, (269) 927-8100 ext. 5003, lane@lakemichigancollege.edu

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course requirements. Firefighter II certification is a prerequisite for FISC 110 through 212.
Degree and Certificate Requirements Credit Hours
General Education Courses
Business Administration 220, Organizational Behavior ..... 3
*Chemistry 101, Introductory Chemistry I ..... 4
*English 101, English Composition ..... 3
English 103, Report Writing ..... 3
*Physical Education 216, Health Issues - Stress Management ..... 2
Political Science 101, National Government, or Political Science 102, State Governments ..... 3
Psychology 201, Introduction to Psychology, or Sociology 101, Principles of Sociology ..... 3
Mathematics Elective 100, or above ..... 4
Computer Information Systems 108, Microcomputing ..... 3
Fire Science Major
*Fire Science 102, Firefighter II (See Prerequisites) ..... 12
Fire Science 110, Fire Prevention ..... 3
Fire Science 111, Building Construction ..... 3
Fire Science 112, Fire Service Tactics ..... 3
Fire Science 210, Fire Cause Determination ..... 3
Fire Science 211, Industrial Techniques ..... 3
Fire Science 212, Incident Management. ..... 3
*Emergency Medical Technician 162, Basic Emergency Medical Technician ..... 9
*Indicates classes needed for certificate

## Fire Science Consortium

Contact advisor.

## About the Area of Study

The Fire Science program is designed to prepare the already certified firefighter for career advancement opportunities. The courses are focused on the roles and responsibilities of today's municipal firefighters and fire officers.

## Sample Course Sequence

An advisor will help you make necessary changes to these recommended sequences

## Certificate Program

Semester 1 Semester 2
ENGL 101 CHEM 101
FIRE 102 EMT 162
PHED 216

## Associate's Degree Program

Semester 1 Semester 2
ENGL 101 ENGL 103
PSYC 201 SOS 101
BUSA 211 CHEM 101
FIRE 1012 FIRE 110
PHED 216 FIRE 111

## Semester 3 Semester 4

POSC 101 POSC 102
MATH Elective CIS 108
FIRE 112 FIRE 212
FIRE 210 EMT 162
FIRE 211


Arts and Communication

## Sample Transfer Program

It is essential that you consult with an academic advisor for the specific requirements of the college you plan to attend.

## Courses <br> Credit Hours

English 101, English Composition.......................................................................... 3
English 102, English Composition.............................................................. 3

* Physical Education 200, Healthful Living, or

Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health ............................................. 1 or 3
Political Science 101, National Government, or Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present...................................... 3
Mathematics 122, Intermediate Algebra (or above) ...................................... 4
Sociology 101, Principles of Sociology....................................................... 3
Social Science electives
Science electives
Humanities electives
Foriegn Language classes

* Transferring students are encouraged to take PHED 212 or PHED 214.


## Transfer Opportunities

If you are planning to transfer to a four-year college, you should become familiar with the entire four-year program. You should see your advisor for assistance and approval. If you intend to transfer to a professional school or liberal arts college that does require competency in a foreign language as part of their general education, you should become familiar with the specific requirements of that school.

Generally, foreign language competency is equivalent to two years of college study. Michigan State University, Western Michigan University, The University of Michigan, and Lake Superior State University currently require one college year or two high school years of a foreign language. Consult your faculty advisor for specific guidance. There is a 61 -credit degree requirement needed for graduation.

## About the Area of Study

This program will help you succeed if you plan to use a foreign language as a primary skill in teaching, interpreting, translating, or business. The courses broaden your background knowledge and awareness of the world and its interdependent people. You are strongly urged to gain a good understanding of the cultural heritage of the foreign language you study.

Wider employment opportunities are available if you combine knowledge of a foreign language with professional programs like business administration, journalism, travel, tourism, hospitality, and education. Courses in French and Spanish are offered in regular classroom instruction format. Courses in Arabic, Mandarin Chinese, Italian, Japanese, Polish, and Russian are offered in the SelfInstructional Language program format.

Advisor: Dr. Susan Lentz, (269) 927-8100 ext. 5076, lentz@lakemichigancollege.edu

## Sample Transfer Program

The following is a sample college transfer program. It is essential that you work with an LMC academic advisor to develop an individualized program that meets the specific requirements of the college you plan to attend.

Courses Credit Hours
English 101, English Composition.................................................................... 3
English 102, English Composition.................................................................... 3

* Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health $\qquad$ .....
Political Science 101, National Governments, or Political Science 102, State Government, or History 201, American History to 1865, or
History 202, American History 1865 to Present......................................... 3
Mathematics 151, Calculus I .......................................................................... 5
Mathematics 201, Calculus II .......................................................................... 5
Biology 111, Principles of Biology I................................................................ 4
Biology 112, Principles of Biology II................................................................ 4
Chemistry 111, General Chemistry I................................................................ 4
Chemistry 112, General Chemistry II .............................................................. 4
Chemistry 203, Organic Chemistry I................................................................ 4
Chemistry 204, Organic Chemistry II.............................................................. 4
Physics 101, General Physics I ....................................................................... 5
Physics 102, General Physics II....................................................................... 5
Law Enforcement 140, Intro to Criminal Justice .................................................. 3
Humanities elective
Social Science electives
*Transferring students are encouraged to take PHED 212 or PHED 214.


## About the Area of Study

Forensic science is typically not an entry level field. A student completes a four-year degree majoring in biology, biochemistry or chemistry with a minor in criminal justice and is employed as a police officer. After a minimum of 2-5 years as a police officer, application for transfer to a forensics position can be made within the department/division. While civilian positions do exist, they are not common. Since minimum admission requirements vary among schools with forensics programs, you should work with the pre-forensics advisor to become familiar with the forensics program in which you are interested. The preforensics advisor will assist you in planning your program. There is a 61 -credit degree requirement needed for graduation.

## Transfer Opportunities

If you are planning to transfer to a four-year college, you should become familiar with your chosen school's requirements. See your advisor for assistance in planning your individualized program of study.

Bachelor's degrees with a major in forensics are offered at Michigan State University (Forensic Anthropology, Forensic Biology and Forensic Chemistry) and Northern Michigan University (Forensic Biochemistry), and a forensic minor is offered at Ferris State University. Master's degrees in forensics are offered at Michigan State University through their School of Criminal Justice (Forensic Anthropology, Forensic Biology and Forensic Chemistry).

Associate in General Studies- TRANSFER PROGRAM

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.

## Sample Program:

The following is a suggested program for the Associate in General Studies degree. Because this degree is extremely flexible, it is essential that you work with an advisor to develop an individualized program that meets your specific needs.

## College Requirements

English 101, English Composition.............................................................. 3
English 102, English Composition, or English 103, Report Writing............................................................... 3

* Physical Education 200, Heallhful Living, or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health 1 or 3


## Political Science 101, National Government, or

Political Science 102, State Governments, or3
History 201, American History to 1865, or
History 202, American History 1865 to Present. ..... 3
Support Courses
Science Elective (Group I a or b). ..... 3-4
Mathematics Elective (Group Ic) ..... 3-4
Humanities, Group III Elective ..... 3-4
ElectivesCollege Life Studies 100, Freshman Seminar(recommended for first semester)1
Other Electives ..... 36-40
Major RequirementsComputer Information Systems 100, Intro to Computer Literacy, orComputer Information Systems 102, Basic Computer Literacy.3 or 1
*Transferring students are encouraged to take PHED 212 or PHED 214.

## About the Area of Study

The Associate in General Studies degree is an appropriate degree for students who have taken or plan to take courses in diverse areas of the college without designating a major area of study. The Associate in General Studies meets all general education requirements at Lake Michigan College. Please work with an academic advisor as you plan your program.

## Transfer Opportunities

The Associate in General Studies degree can be customized to meet MACRAO and other transfer requirements. If you have selected the four-year college or university to which you plan to transfer, you should consult with an academic advisor to develop an individualized program that will be accepted by your transfer school.

Associate in Industrial Technology Degree program Code 340
Advisor: Ken Flowers, (269) 927-8100 ext. 3032, flowers@lakemichigancollege.edu

## Program Prerequisites

Proficiency in reading, English, and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.

## Degree Requirements <br> Credit Hours

College Requirements
English 101, English Composition. ..... 3
English 102, English Composition, or English 103, Report Writing ..... 3

* Physical Education 200, Healthful Living, orPhysical Education 212, Health and Fitness, orPhysical Education 214, Personal Health1 or 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present ..... 3
Support Courses
Mathematics 100, Applied Mathematics ..... 4
Mathematics 110, Technical Mathematics I ..... 4
Physics 110, Technical Physics ..... 4
Business Administration 103, Introduction to Business ..... 3
*Transferring students are encouraged to take PHED 212 or PHED 214.


## Major Courses

At least 36 hours of credit courses from the industrial technology and business areas are required. These courses should be part of a planned program of study as designed by the advisor to meet your interests and your employer's needs.

## About the Area of Study

The Associate Degree in General Technology provides you with a broad general knowledge of technological areas applicable to the industrial setting. It is not intended to provide in-depth knowledge in one area. However, with careful selection of courses, the degree can be individualized to provide you with the knowledge and skills applicable to your industrial setting.

If you want a skill-specific degree, please refer to degrees offered in Drafting \& Design Technology, Industrial Maintenance Technology, Electronics Technology, or Machine Tool Technology.

## Degree Options

When you complete the 61-credit General Technology program, with a minimum overall GPA of 2.0 on a 4.0 , you may apply for a Associate in Industrial Technology in General Technology degree.

## Transfer Opportunities

This degree is readily transferable to Siena Heights toward a Bachelor of Applied Science degree.

## Sample Course Sequence

Sequencing of courses is important to your success. You should meet with your program advisor at the beginning of or early in the course sequence to outline and plan the major courses to be completed which will most benefit you and your employer.

## Sample Transfer Program

Meeting the degree requirements for the Associate in Arts degree is the most typical curriculum if you are planning to transfer to a geography program at a four-year college or university. It is essential that you consult with an academic advisor for the specific requirements of the college you plan to attend.

Courses Credit Hours
English 101, English Composition................................................................... 3
English 102, English Composition................................................................... 3

* Physical Education 200, Healthful Living, or

Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health ................................................ 1 or 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present........................................ 3
Mathematics 101, Intermediate Algebra (or above) .......................................... 4
Social Science electives
Science electives
Humanities electives
Related requirements
*Transferring students are encouraged to take PHED 212 or PHED 214.

## Transfer Opportunities

Lake Michigan College has worked with the following university to develop program guides. These guides ensure that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

## Western Michigan University

If you are interested in attending a school not listed here, please work with an academic advisor to build a program that will meet the requirements of your chosen school.

## About the Area of Study

Geography is the study of the description, distribution, and interaction of the diverse physical, biological, and cultural features of the Earth's surface. Geography prepares you for a wide variety of careers such as elementary and secondary school teaching, tourism and travel, environmental studies and analysis, regional and urban planning, and cartography.

Graduates find job opportunities in school systems, colleges and universities, and government agencies. The courses allow you to broaden your knowledge and awareness of the world and its people. If you are planning to transfer to a four-year school, you should become familiar with the entire four-year program, selecting courses to meet as many requirements as possible. You should see your advisor for assistance and approval. There is a 61 -credit degree requirement needed for graduation.

Associate in Science Degree - TRANSFER PROGRAM
Program Code 069
Advisor: Dr. Cole Lovett, (269) 927-8100 ext. 5079, lovett@lakemichigancollege.edu and Agriscience

## Sample Transfer Program

## The following is a sample college transfer program. It is essential that you work with an academic advisor to develop an individualized program that meets the specific requirements of the college you plan to attend.

It is important to begin the science and math sequence as soon as possible to efficiently complete the coursework. Be sure to determine readiness for the math and science courses as many students need to begin with lower level math and science coursework to successfully complete the required courses.

## Courses

 Credit HoursEnglish 101, English Composition................................................................... 3
English 102, English Composition. 3

* Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health ............................................... 1 or 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present........................................ 3
Chemistry 111, General Chemistry I............................................................... 4
Chemistry 112, General Chemistry II .............................................................. 4
Mathematics 151, Calculus I .......................................................................... 5
Physical Science 104, Physical Geology .......................................................... 4
Physics 101, General Physics I ......................................................................... 5
Physics 102, General Physics II....................................................................... 5
Humanities electives
Social Science electives
*Transferring students are encouraged to take PHED 212 or PHED 214.


## Transfer Opportunities

If you are planning to transfer to a four-year college, you should become familiar with your chosen school's requirements. See your advisor for assistance in planning your individualized program of study.

## About the Area of Study

Geology deals with the history of the Earth and its life as recorded in rocks and those processes that affect them. Geology offers coursework for you to complete your general education requirements in Science and if you are preparing for professional work in Science. Consult the faculty advisor for specific guidance. There is a 61-credit degree requirement needed for graduation.

Arts and Communication

## Program Prerequisites


#### Abstract

Students must demonstrate proficiency in English reading, and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.


## Degree Requirements

 Credit Hours
## College Requirement

English 101, English Composition3
English 102, English Compoisiton, or English 103, Report Writing ..... 3
**Physical Education 200, Healthful Living, or
Physical Education 212, Health and Fitness, orPhysical Education 214, Personal Health1 or 3
Political Science 101, National Government, or
Political Science 102, State Governement, orHistory 201, American History to 1865, orHistory 202, American History 1865 to Present3
Support Courses
Math 122, Intermediate Algebra (or above) ..... 4
Art 200, History of Art I, or
Art 201, History of Art II, or
Art 203, 20th Century Art History: 1900-1945, or
Art 204, 20th Century Art History: 1945 to Present3
Sociology 101, Principles of Sociology ..... 3
Psychology 201, Intro to Psychology. ..... 3
Biology 205, Human Anatomy, or
Biology 101 Biological Science (or above), orChemistry 101, Introductory Chemistry I, orPhysical Science 104, Physical Geology, orPhysics 101, General Physics I (or above)4
Communication 101, Intro to Public Speaking ..... 3

* Art 109, Basic Design 2/D ..... 3
* Art 122, Drawing 1 ..... 3
* Art 123, Drawing II ..... 3
Major Requirements
* Graphic Design 101, Digital Studio ..... 3
* Graphic Design 110, Introduction to Graphic Design ..... 3
* Graphic Design 130, Digital Photography ..... 3
* Graphic Design 140, Production Skills for Graphic Design. ..... 3
* Graphic Design 200, Typography I. ..... 3
* Graphic Design 201, Typography II ..... 3
* Graphic Design 220, Design Strategies ..... 3
* Graphic Design 250, Portfolio ..... 3
* Classes required for Ceritificate program
** Transferring students are encouraged to take PHED 212 or PHED 214.

Advisor: Jill Claeys, (269) 927-8100 ext. 5070, claeys@lakemichigancollege.edu Daniel Meyer, (269) 927-8100 ext. 5178, meyer@lakemichigancollege.edu

## Sample Transfer Program

> The following is a sample college transfer program. It is essential that you work with an academic advisor to develop an individualized program that meets the specific requirements of the college you plan to attend.

> It is important to begin the science and math sequence as soon as possible to efficiently complete the coursework. Be sure to determine readiness for the math and science courses as many students need to begin with lower level math and science coursework to successfully complete the required courses.

## Courses

 Credit HoursEnglish 101, English Composition.................................................................... 3
English 102, English Composition 3
Physical Education 214, Personal Health............................................................................................ 3
Political Science 101, National Government, or Political Science 102, State Governments, or History 201, American History to 1865, or History 202, American History 1865 to Present3
Biology 205, Human Anatomy ..... 4
Communications 101, Introduction to Public Speaking ..... 3
Physical Education 145, Total Fitness I ..... 1
Mathematics 122, Intermediate Algebra (or above) ..... 4
Psychology 201, Introduction to Psychology ..... 3
Sociology 101, Principles of Sociology ..... 3
Humanities electives

Social Science electives
Physical Education electives

## Transfer Opportunities

If you are planning to transfer to a four-year college, you should become familiar with your chosen school's requirements. See your advisor for assistance in planning your individualized program of study.

## About the Area of Study

The courses offered in Health are for those students interested in personal and community health. You have the opportunity to become certified in life-saving techniques or firstaid procedures, investigate various health career options, or evaluate your own levels of healthful living and develop plans toward more health-filled lifestyles. Consult a faculty advisor for specific guidance. There is a 61 -credit degree requirement needed for graduation.

Human Services

## Sample Transfer Program

Meeting the degree requirements for the Associate in Arts degree is the most typical curriculum if you are planning to transfer to a history program at a four-year college or university. It is essential that you consult with an academic advisor for the specific requirements of the college you plan to attend.

Courses Credit Hours
English 101, English Composition................................................................... 3
English 102, English Composition................................................................... 3

* Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health ............................................... 1 or 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present........................................ 3
Mathematics 101, Intermediate Algebra (or above) ......................................... 4
Sociology 101, Principles of Sociology............................................................ 3
Humanities electives
Science electives
Social Science electives
Related requirements
The following History classes are offered at LMC:
History 101, History of Western Civilization ..................................................... 4
History 102, History of Western Civilization .................................................... 4
History 201, American History to 1865 .......................................................... 3
History 202, American History 1865 to Present............................................... 3
History 204, Modern East Asia ........................................................................ 3
History 209, Women in the Western World...................................................... 3
History 210, The Civil War and Reconstruction................................................. 3
*Transferring students are encouraged to take PHED 212 or PHED 214.


## Transfer Opportunities

Lake Michigan College has worked with the following universities to develop program guides. These guides ensure that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

## Michigan State University Western Michigan University University of Michigan

If you are interested in attending a school not listed here, please work with an academic advisor to build a program that will meet the requirements of your chosen school.

## About the Area of Study

History is a branch of knowledge that records and explains past events. If you plan to obtain a bachelor's degree in History, you may complete the first two years of your studies at Lake Michigan College. All of the History courses are transferable to other Michigan colleges as well as other four-year colleges and universities.

History majors find employment in areas such as teaching, library/archival fields, and government service. Along with Political Science, a bachelor's degree in History is regarded as a stepping stone to law school. Students are strongly urged to complete two semesters of German, French, or Spanish. Consult a faculy advisor for specific guidance. There is a 61 -credit degree requirement needed for graduation.

# Honors Curriculum - Transfer Program 

Advisors: Dr. William Sprunk, (269)927-8100, ext. 5172, sprunk@lakemichigancollege.edu; Joseph Eklund, (269) 927-8100, ext. 5174, eklund@lakemichigancollege.edu

Human Services

## Sample Transfer Program Courses

## Fall Semester, Year I

HONR 250 Honors English Composition ..... 3
HONR 241 Honors Colloquium .....  1
HONR 101 Honors Biological Science ..... 4
Elective ..... 3
HONR 141 Honors National Government ..... 3
HONR 100 Honors College \& Career Success ..... 1
TOTAL: 15
Winter Semester, Year I
HONR 251 Honors English Composition ..... 3
HONR 241 Honors Colloquium ..... 1
HONR 200 Honors Health \& Fitness ..... 3
Elective ..... 3
Elective .....  3
Elective ..... 3-4
TOTAL: 16-17
Fall Semester, Year II
HONR 151 Honors Calculus I ..... 1
MATH 151 Calculus I ..... 5
HONR 121 Honors Intro to Psychology ..... 3
HONR 241 Honors Colloquium ..... 1
Elective ..... 3-4
Elective ..... 3
TOTAL: 16-17
Winter Semester, Year II
HONR 258 Honors Literary Interpretation ..... 3
HONR 241 Honors Colloquium ..... 1
Elective ..... 3
Elective ..... 3
Elective ..... 3-4
Elective ..... 3

## Sample Transfer Program

It is essential that you consult with a counselor or academic advisor for the specific requirements of the college you plan to attend.

## Admissions Requirements for the Honors Program

## High School Graduates or Early College Students

3.5 high school GPA, 25 composite ACT, OR Compass Scores of: Writing 94; Reading 92; Math 66

## College Students

3.5 GPA for minimum of 12 hours of college credit, OR Compass Scores of: Writing 94; Reading 92; Math 66
*Exceptions at the discretion of the Director of the Honors Program

## Transfer Opportunities

Lake Michigan College has a transfer agreement with Lee Honors College at Western Michigan University.

If you are interested in attending a school not listed here, please work with a counselor or academic advisor to build a program that will meet the requirements of your chosen school.

## About the Area of Study

Honors courses allow students to study and interact with their academic peers and increase their access to a wider number of colleges and universities and better their chances for scholarships and other aid.

Business, Management Marketing \& Technology

## Degree Requirements

 Credit Hours
## College Requirements

English 101, English Composition ..... 3
English 102, English Composition, or English 103, Report Writing ..... 3
Political Science 101, National Government, orPolitical Science 102, State Governments, orHistory 201, American History to 1865, orHistory 202, American History 1865 to Present3

* Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health ..... or 3
Support CoursesComputer Information Systems 100, Introduction to Computer Literacy, orComputer Information Systems 108, Computer Operations- Micro3
Chemistry 101, Introductory Chemistry I, or Biology 101, Biological Science ..... 4
Psychology 201, Introduction to Psychology, or Sociology 101, Principles of Sociology. ..... 3
Business Administration 101, Business Accounting I, or Business Administration 201, Principles of Accounting ..... 3/4
** Communication 101, Intro to Public Speaking ..... 3
Major
** Hospitality Management 110, Sanitation ..... 1
** Hospitality Management 115, Safety \& Legal Overview ..... 2
** Hospitality Management 116, Media Presentation Technology. ..... 1
** Hospitality Management 117, Introduction to Meetings and Events ..... 2
** Hospitality Management 150, Introduction to Hospitality Careers ..... 3
** Hospitality Management 153, Nutrition ..... 3
** Hospitality Management 200, Hospitality Management Internship ..... 3
** Hospitality Management 201, Restaurant Operations ..... 3
** Hospitality Management 250, Food Preparation Skills ..... 2
** Hospitality Management 251, Marketing of Hospitality Services ..... 3
** Hospitality Management 252, Supervisory Skills \& Human Relations ..... 3
Hospitality Management 253, Tourism ..... 3
** Hospitality Management 254, Hospitality Cost Control Systems ..... 3
** Hospitality Management 255, Hotel Management \& Operations ..... 3
Electives (optional)
Foreign Language 123, Spanish in the Workplace ..... 4
** Hospitality Management 202, Introduction to Casino Management ..... 3
* Transferring students are encouraged to take PHED 212 or PHED 214
** Classes required for Certificate program
This program articulates with the Occupational Education Studies (OES) program at Western Michigan University to prepare certified vocational teachers for high schools, technical centers and community colleges. If you think you might be interested in teaching, please discuss the OES program with your advisor. You can learn more about the OES program by visiting www.wmich.edu/gus/occupnedn.html

About the Area of Study
Graduates of the Hospitality Management program may select from a variety of management and staff-related careers in restaurants, hotels, resorts, clubs, and travel and tourism services. Some careers include assistant manager, hotel general manager, executive housekeeper, hotel front office manager, food and beverage manager, and convention services manager. In all of these career paths, strong supervisory, customer service, problem solving, and management skills are needed.

## Certificate \& Associate's Degree

 Upon completion of the 39-credit program, you may apply for a Certificate in Hospitality Management. Upon completion of the 61 -credit program, you may apply for an Associate in Applied Sceince degree. Certificate requirements may be applied to the degree program.
## Transfer Options

If you are interested in transferring to a fouryear school, see the Hospitality and Tourism Management Program on page 80. You should also speak with a counselor or your academic advisor.

## Sample Course Sequence

An advisor will help you make necessary changes to the recommended sequences.

## Program Prerequisites

Students must demonstrate proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.

## Certificate Program

| Semester 1 | Semester 2 | HOSP 252 |
| :--- | :--- | :--- |
| HOSP 150 | HOSP 116 | HOSP 254 |
| HOSP 110 | HOSP 117 | HOSP 201 |
| HOSP 115 | HOSP 153 | HOSP 202 |
| COMM 101 | HOSP 200 |  |
| HOSP 251 |  |  |
| HOSP 255 |  |  |

## Associate's Degree Program

| Semester 1 | Semester 2 | Semester 3 |
| :--- | :--- | :--- |
| ENGL 101 | ENGL 102 | CHEM 101 or |
| CIS 100 or | ENGL 103 | BIOL 101 |
| CIS 108 | HOSP 116 | FORL 123 |
| HOSP 150 | HOSP 117 | HOSP 1153 |
| HOSP 110 | HOSP 201 | HOSP 251 |
| HOSP 115 | HOSP 252 | HOSP 255 |
| COMM 101 | PSYC 201 or |  |
|  | SOC 101 |  |
| Semester 4 |  |  |
| POSC 101 or | BUSA 101 or | HOSP 253 |
| POSC 102 or | BUSA 201 | HOSP 254 |
| HIST 201 or | HOSP 200 | PHED 200 |
| HIST 202 | HOSP 250 |  |
| www.lakemichigancollege.edu • 1-800-252-1562 |  |  |

# Hospitality and Tourism Management Associate in Applied Science Degree - TRANSFER PROGRAM <br> Program Code 317 <br> 星 27 En 

Business, Management Marketing \& Technology
Program PrerequisitesProficiency in reading, English and mathematics on the assessment or successfully completerecommended classes.
Degree RequirementsCredit Hours
College Requirements
English 101, English Composition ..... 3
English 102, English Composition, or English 103, Report Writing ..... 3
Political Science 101, National Government, or Political Science 102, State Governments, or History 201, American History to 1865, or History 202, American History 1865 to Present ..... 3

* Physical Education 200, Healthful Living, orPhysical Education 212, Health and Fitness, orPhysical Education 214, Personal Health
$\qquad$
Support Courses
Chemistry 101, Intro to Chemistry I, or Biology 101, Biological Science ..... 4
Sociology 101, Principles of Sociology, or Psychology 201, Intro to Psychology ..... 3
Business Administration 201, Principles of Accounting I ..... 4
Computer Information Systems 100, Introduction to Computer Literacy ..... 3
Communication 101, Intro to Public Speaking ..... 3
Major Requirements
Hospitality Management 150, Intro to Hospitality Careers ..... 3
Hospitality Management 110, Sanitation ..... 1
Hospitality Management 115, Safety \& Legal Overview ..... 2
Hospitality Management 116, Media Presentation Technology. ..... 1
Hospitality Management 117, Introduction to Meetings and Events ..... 2
Hospitality Management 153, Nutrition ..... 3
Hospitality Management 201, Restaurant Operations ..... 3
Hospitality Management 250, Food Preparation Skills ..... 2
Hospitality Management 251, Marketing of Hospitality Services ..... 3
Hospitality Management 252, Supervisory Skills \& Human Relations ..... 3
Hospitality Management 253, Tourism ..... 3
Hospitality Management 254, Hospitality Cost Control Systems ..... 3
Hospitality Management 255, Hotel Management \& Operations ..... 3
Hospitality Management 200, Hospitality Management Internship ..... 3
Electives (optional)
Foreign Language 123, Spanish in the Workplace ..... 4
Hospitality Management 202, Introduction to Casino Management ..... 3


## About the Area of Study

The Hospitality and Tourism Management program is designed as a transfer program for those wanting to pursue a bachelor's degree. By working with an advisor, graduates of the program can earn the first two years of their bachelor's degree and maximize the number of credits that will transfer to their chosen fouryear college.

## Associate's Degree

Upon completion of the 62-credit program, you may apply for an Associate in Applied Science degree in Hospitality Management.

## Transfer Options

If you are interested in transferring to a fouryear school to complete your bachelor's degree in hospitality and tourism management, you should work with your academic advisor to ensure that your courses will transfer to the school of your choice.

## Sample Course Sequence

An advisor will help you make necessary changes to this recommended sequence.

## Associate's Degree Program

Semester 1 Semester 2
ENGL 101 ENGL 102 or
CIS 100 or ENGL 103
CIS 108 HOS P 116
HOSP 150 HOSP 117
COMM 101 HOSP 252
*HOSP $110 \quad$ PSYC 201
*HOSP 115 SOC 101
Semester 3 Semester 4
CHEM 101 POSC 101 or
BIO 101 POSC 102 or
FORL 123 HIST 201 or
PHED 200 HIST 202
*HOSP 153 BUSA 201 or
*HOSP 201 BUSA 101
*HOSP 202 HOSP 200
*HOSP 251 HOSP 250
*HOSP 255 HOSP 253
*HOSP 254

* Transferring students are encouraged to take PHED 212 or PHED 214.


Human Services


Arts and Communication

## Sample Transfer Program

Meeting the degree requirements for the Associate in Arts degree is the most typical curriculum if you are planning to transfer to a Humanities program at a four-year college or university. It is essential that you consult with an academic advisor for the specific requirements of the college you plan to attend.

*Transferring students are encouraged to take PHED 212 or PHED 214.

## Transfer Opportunities

If you are planning to transfer to a four-year college, you should become familiar with your chosen school's requirements. See your advisor for assistance in planning your individualized program of study.

## About the Area of Study <br> Programs in the Humanities refer to

 interdisciplinary study including, but not limited to, language both modern and classical, linguistics, literature, history, jurisprudence, philosophy, archaeology, comparative religion, ethics, history/criticism/theory of the arts, and aspects of the sciences which have humanistic content and employ humanistic methods. If you want to pursue a bachelor's degree in Humanities, you may complete your first two years of college courses at Lake Michigan College. All Humanities courses are transferable to other institutions in Michigan and elsewhere.Courses listed under Art, Communication, English, Foreign Languages, History, Humanities, Music, Philosophy, and Theatre with transferable Humanities credits may be taken as electives for a Humanities concentration. Competency in a foreign language is not a degree requirement at Lake Michigan College; however, Humanities majors are urged strongly to complete at least two semesters of French, German, or Spanish. As a Humanities major, you should seek a broadbased education through careful selection of courses under general electives. Consult the faculty advisor for specific guidance. There is a 61-credit degree requirement needed for graduation.

# Industrial Maintenance Technology <br> Associate in Industrial Technology Degree program Code 360 

Advisor: Ken Flowers, (269) 927-8100 ext. 3032, flowers@lakemichigancollege.edu

Engineering/Manufacturing and Industrial Technology

## Degree Requirements

 Credit Hours
## College Requirements

English 101, English Composition.............................................................. 3
English 103, Report Writing, or
English 102, English Composition........................................................ 3

* Physical Education 200, Healthful Living, or

Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health
. or 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present......................................... 3

## Support Courses

Mathematics 100, Applied Mathematics ......................................................... 4
Mathematics 110, Technical Mathematics, or
Mathematics 130, Pre-Calculus Trigonometry ......................................... 4/3
Physics 110, Technical Physics........................................................................ 4

## Major

Industrial Maintenance Technology 109, Intro to Welding................................. 2
Industrial Maintenance Technology 204, Basic Hydraulics \& Pneumatics ............ 2
Industrial Maintenance Technology 205, Hydraulics \& Pneumatics Maintenance. 2
Industrial Maintenance Technology 206, Hydraulics \& Pneumatics Circuitry ....... 2
Electronics 100, DC Electricity ......................................................................... 4
Electronics 106, AC Electricity ........................................................................ 3
Electronics 151, Transformers, Motors, \& Motor Controls................................... 4
Engineering 103, Beginning Engineering Drawing........................................... 4
Machine Tool Technology 110, Machine Tool I................................................. 3
Machine Tool Technology 120, Machine Tool II ................................................ 3
Machine Tool 140, Introduction to NC-CNC ..................................................... 2
Manufacturing 111, Manufacturing Processes I ................................................ 3
Manufacturing 120, Fundamentals of Programmable Controllers ...................... 2
Manufacturing 122, Introduction to Robotics .................................................... 1

## Electives (Select 2/3 credit hours)

Electronics 152, Machine Circuitry \& Control Logic........................................... 3
Industrial Maintenance Technology 110, MIG/TIG Welding............................... 3
Industrial Maintenance Technology 120, Basic HVAC....................................... 3
Industrial Maintenance Technology 240, Predictive \& Preventive Maintenance.... 3
Manufacturing 123, Programmable Logic Controller II ...................................... 2
It is important to begin the science and math sequence as soon as possible to efficiently complete the coursework. Be sure to determine readiness for the math and science courses as many students need to begin with lower level math and science coursework to successfully complete the required courses.

This program articulates with the Occupational Education Studies (OES) program at Western Michigan University to prepare certified vocational teachers for high schools, technical centers and community colleges. If you think you might be interested in teaching, please discuss the OES program with your advisor. You can learn more about the OES program by visiting www.wmich.edu/gus/occupnedn.html

## About the Area of Study <br> As an industrial machinery mechanic you will repair and maintain industrial production and processing machinery in a plant or factory. This will include diagnosing and correcting minor problems with equipment, before they can become major ones. After diagnosing the problem, you will disassemble, repair, reassemble, and test the equipment. <br> You also may perform preventative maintenance and become involved with replacing and installing new machinery.

## Associate's Degree

As a graduate of the Industrial Maintenance program, you may apply for an Associate in Industrial Technology degree in Industrial Maintenance Technology. There is a 61 -credit degree requirement needed for graduation.

## Transfer Options

The Industrial Maintenance program transfers to Ferris State University's manufacturing Engineering Technology program. See your academic advisor for more details.

## Program Prerequisites <br> Proficiency in reading, English and

 mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.
## Sample Course Sequence

An advisor will help you make necessary changes to this recommended sequence.

## Associate's Degree Program

Semester 1 Semester 2
MATH 100 MATH 110 or
ELEC 100 MATH 130
ELEC 106 INMT 206
ENGL 101 MANU 120
INMT 204 MANU 122
ENGL 103 or
ENGL 102
ELEC 151

## Semester 3

MANU 111
MACH 110
INMT 109
PHYS 110
INMT 205
PHED 200

Semester 4
MACH 120
POSC 101 or
POSC 102 or
HIST 201 or
HIST 202
ENGR 103
MACH 140
Electives
*Transferring students are encouraged to take PHED 212 or PHED 214.

# Industrial Maintenance Technology <br> Level I Certificate - Fluid Power Program Code 262 Level I Certificate - Industrial Computing Program Code 364 

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successful completion of the recommended classes. See course descriptions for specific course prerequisites.

Level| Fluid Power Certificate - Program Code 362
Industrial Maintenance 204, Basic Hydraulics and Pneumatics....................... 22
Industrial Maintenance 205, Hydraulics and Pneumatics Maintenance ..... 2
Industrial Maintenance 206, Hydraulics and Pneumatics Circuitry ..... 2
Machine Tool Technology 110, Machine Tool I ..... 3
Total Credit Hours ..... 9
Level I Industrial Computing Certificate ..... Program Code 364
Computer Information Systems 108, Computer Operations. ..... 3
Engineering 103, Beginning Engineering Drawing. ..... 4
Machine Tool Technology 140, Introduction to CNC ..... 2
Machine Tool Technology 150, Introduction to CAM ..... 2
Machine Tool Technology 241, CNC Programming I ..... 2
Manufacturing 120, Intro to PLC .....  2
Manufacturing 122, Intro to Robotics .....  1
Total Credit Hours ..... 16

## Level I Certificate Option

Upon completion of the listed programs, you will earn a Level I Certificate of Completion. This Level I certificate is a pathway into the Associate in Industrial Technology degree in Industrial Maintenance and General Technology. It is also a pathway into the Associate in Skilled Trades Technology degree (must be a registered apprentice with the Department of Labor.)

See page 82 for Industrial Maintenance Technology associate's degree.

Associate in Arts Degree - TRANSFER PROGRAM
Program Code 083
Advisor: Dr. Gary Roberts, (269) 927-8100 ext. 5016, roberts@lakemichigancollege.edu

## Sample Transfer Program

Meeting the degree requirements for the Associate in Arts degree is the most typical curriculum if you are planning to transfer to a Pre-Law program at a four-year college or university. It is essential that you consult with an academic advisor for the specific requirements of the college you plan to attend.

## Courses <br> Credit Hours

English 101, English Composition.
.3
English 102, English Composition
3

* Physical Education 200, Healthful Living, or

Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health ................................................ 1 or 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present........................................ 3
Mathematics 101, Intermediate Algebra (or above) ........................................ 4
Humanities electives
Science electives
Social Science electives
Related requirements
*Transferring students are encouraged to take PHED 212 or PHED 214.

## Transfer Opportunities

If you are planning to transfer to a four-year college, you should become familiar with your chosen school's requirements. See your advisor for assistance in planning your individualized program of study.

## About the Area of Study

No particular undergraduate major is necessary to prepare for law school. You should pursue a liberal arts program in which you are interested and attain maximum levels of achievement and success. You should focus your attention on developing the high-level reasoning and writing skills needed to be successful in law school.

Information about legal education, profiles of law schools, and the Law School Aptitude Test (LSAT) is available from the Pre-law advisor. There is a 61-credit degree requirement needed for graduation.

# Law Enforcement 

# Associate in Applied Science Degree - TRANSFER PROGRAM <br> Program Code 384 <br> Associate in Applied Science Degree Program Code 385 <br> From LMC after completion of KVCC Police Academy or State Police Academy and LMC 



Human Services

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course requirements.

## 1 + 1 with Kalamazoo Community College Degree Requirements:

## Several program options are available:

Lake Michigan College CoursesCollege Requirements
English 101, English Composition. ..... 3
English 103, Report Writing ..... 3
Political Science 102, State Governments ..... 3

* Physical Education 200, Healthful Living, or
Physical Education 212, Health and Fitness, orPhysical Education 214, Personal Health1 or 3
Support Courses
Math or Science Elective - See an Advisor ..... 4
Social Science Elective - See an Advisor ..... 3
Major
Law Enforcement 140, Introduction to Criminal Justice ..... 3
Law Enforcement 142, Police Organization \& Administration ..... 3
Law Enforcement 250, Juvenile Delinquency \& Behavior. ..... 3
Law Enforcement 144, Criminology ..... 3
Kalamazoo Valley Community College Police Academy
Students must apply to KVCC the semester before admission is desired.EMT 106 Medical First Responder for Law Enforcement*3
LEN 106 Criminal Law and Procedure* ..... 4
LEN 150 Fundamentals of Marksmanship ..... 2
LEN 202 Motor Vehicle Traffic* ..... 4
LEN 243 Parrol Procedures* ..... 4
LEN 201 Criminal Investigation*, ..... 4
LEN 206 Emergency Vehicle Operations* ..... 2
LEN 241 Police Physical Skills* ..... 4
LEN 242 Tactical Firearms* ..... 4
LEN 253 Police Practical Problems* ..... 3

The Law Enforcement Training Center certification program is designed to give you a broad based general education along with MCOLES* basic law enforcement certification. You will learn about Police Organization, Criminal Investigation, Traffic control, Delinquency, Criminal Law, Enforcement Procedures, Patrol Procedures, Detention and Prosecution, Police Skills, Traffic and special Operations. Students selecting this option must complete two semesters of general educational requirements then they must make application to the police academy. The application process is competitive and only the most qualified applicants will be accepted. Upon meeting all MCOLES requirements and successful completion of the entire academy block of instruction, they may be eligible to take the MCOLES certification examination.

This program will also transfer on a $2+2$ basis to Western Michigan University. Transferability to other four-year institutions in Michigan may be possible.

## About the Area of Study

The Law Enforcement program is designed to give you a broad base of general education along with specific skills and knowledge in the field of law enforcement. The program is designed to prepare students for a technical career upon graduation. Several program options are available as noted on these two pages.

A law enforcement career can lead you to be a police officer in almost any geographic area of the country. As a police officer in a rural area, you may perform a wide variety of activities including directing traffic at the scene of a crime, investigating a burglary, or giving first aid to an accident victim. In a larger police department, your duties may be more specific.

## There is a 62-credit degree requirement needed for graduation.

## Law Enforcement continued

## Regional Police Training Academy

Kalamazoo Valley Community college has been designated as a Regional Police Training Academy by the Michigan commission on Law Enforcement Standards. The Police academy provides training for newly hired city, county and township officers as required by the mandatory Police Training Act in Michigan. In addition, the Police Academy offers the training to pre-service students who meet the minimum requirements to be police officers in the state of Michigan. In this 17-18 week credit program, you will learn about police organization, criminal investigation, traffic control, juvenile law, criminal law, and enforcement procedures. Upon successful completion of the entire academy block of instruction you will be eligible to take the mandatory certification examination given by the Michigan Commission on Law Enforcement Standards. Two Police Academies are held each year, one from August to December and another from February to June,

Unless you meet one of two exceptions listed below, you must have earned a total of 28 credit hours from specified disciplines prior to being admitted to the academy. These 28 credit hours, when combined with the credit hours earned through successful completion of the academy, will enable you to receive an associate degree in order to be eligible for employment as a police officer. Exceptions to this requirement are: 1) an employed police officer who is being sponsored by his/her agency; or 2) an applicant who already holds an associate or higher degree.

NOTE: Graduation requirements are subject to change. Contact the Law Enforcement Training Center at KVCC for the most current program information.
*Students must take and pass, the MCOLES Reading and Writing test and the Physical Skills test prior to tracking in semester III.
${ }^{* *}$ All candidates interested in enrolling in an academy must first meet with the Police Academy Program Director. The director will review MCOLES requirements and standards to determine your eligibility. For further information, contact the Kalamazoo Law Enforcement Training Center at: (269) 488-4336.

## Associate's Degree Completion at Lake Michigan College

If you have recently completed the Police Academy at KVCC or the State Police Academy, you are eligible to apply for the Associate in Applied Science degree at Lake Michigan College.

## Degree completion at LMC

If you have recently completed the Police Academy at KVCC or the State Police Academy, you are eligible to complete your associate's degree at LMC. Upon completion, you will be awarded an Associate in Applied Science degree.

## Degree Options 1+1 with KVCC

Upon completion of the $1+1$ program in conjunction with Kalamazoo Valley Community College, you may apply for an Associate in Applied Science or Associate in Arts degree, depending on the general education courses you take. The degree will be awarded by KVCC.

## Transfer Options

With slight modifications, the Law Enforcement program can be a transfer program and lead to a bachelor's degree upon completion of required courses at certain four-year institutions. Siena Heights University at LMC accepts this degree toward a Bachelor of Applied Science degree.

Advisor: Lisa Augustyniak, (269) 927-8171, augustyn@lakemichigancollege.edu

Business, Management Marketing \& Technology

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.

## Degree Requirements

Credit Hours

## College Requirements

**English 101, English Composition ............................................................... 3
English 102, English Composition, or English 103, Report Writing3

* Physical Education 200, Healthful Living, or

Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health $\qquad$
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present ............................................ 3

## Support Courses

Electives, Group I, II, or III (see page 29) ..................................................... 6
Communication 101, Introduction to Public Speaking .................................... 3
Major
Business Administration 205, Business Law ................................................... 3
** Business Administration 210, Business Correspondence ................................. 3
${ }^{* * *}$ Computer Information Systems 123, Spreadsheet Skills................................. 1
***Computer Information Systems 223, Advanced Spreadsheet Skills ................ 1
** Office Information Systems 114, Intermediate Keyboarding .......................... 3
** Office Information Systems 125, Records Management.................................. 3
** Office Information Systems 201, Advanced Keyboarding.............................. 3
** Office Information Systems 204, Legal Transcription ...................................... 3
** Office Information Systems 211, Office Procedures ....................................... 3
** Office Information Systems 217, Introduction to Word Processing Applications.

3
** Office Information Systems 218, Advanced Word Processing Applications..... 3
** Office Information Systems 219, Legal Office Procedures............................... 3
***Office Information Systems 261, Office Co-op I ........................................... 3
Program Electives (select 7 credit hours for degree, 3 hours for certificate)
** Business Administration 100, Business Mathematics3
** Business Administration 101, Business Accounting I. ..... 3
Business Administration 103, Introduction to Business ..... 3
Business Administration 209, Principles of Marketing ..... 3
Business Administration 211, Principles of Management ..... 3
** Business Administration 150, Job Search Seminar ..... 1
** Computer Information Systems 106, Introduction to Operating Systems ..... 3
** Computer Information Systems 111, Database Concepts ..... 3
Office Information Systems 262, Office Co-op I ..... 3
Law Enforcement 140, Introduction to Criminal Justice ..... 3

* Transferring students are encouraged to take PHED 212 or PHED 214.
** Classes required for Certificate program
***Elective for certificate program - select 3 credit hours
Some courses may be offered in an Open Entry/Open Exit (OE/OE) format. See course description.

You should notify your advisor and the co-op coordinator of your intention to take OIS 261 or OIS 262 before beginning your second-year classes.

## About the Area of Study

The Legal Office Systems program prepares you for a highly skilled job in the legal profession. You will learn legal machine transcription and legal office procedures, computer soffware, keyboarding, and other general business background. Business law will also be covered in the degree program. As an legal office assistant you may perform a variety of administrative activities for attorneys, judges, prosecuting attorneys, and legal organizations such as Friend of the Court.

## Certificate \& Degree Options

By completing the 33 -credit program in Legal Office Systems, you may apply for a Certificate of Achievement in Legal Office Assistant. The certificate can be applied to the associate's degree program.

By completing the 61-credit program in Legal Office Systems, you may apply for an Associate in Applied Business degree.

## Sample Course Sequence

An advisor will help you make necessary changes to these recommended sequences.

| Certificate | Program |
| :--- | :---: |
| Semester 1 | Semester 2 |
| ENGL 101 | OIS 125 |
| OIS 114 | OIS 201 |
| BUSA 210 | OIS 204 |
| OIS 211 | OIS 218 |
| OIS 217 | OIS 219 |
|  | Program |
|  | Elective |

Associate's Degree Program
Semester 1 Semester 2
ENGL 101 ENGL 102 or
OIS 114 ENGL 103
BUSA 210 CIS 123
OIS 211 OIS 201
OIS 217 OIS 218
PHED 200
Program Elective
Semester 3 Semester 4
BUSA 205 OIS 204
OIS 125 OIS 219
POSC 101 or OIS 261
POSC 102 or COMM 101
HIST 201 or General Elective
HIST 202
General Elective
CIS 223


Arts and Communication


Human Services

## Sample Transfer Program

Meeting the degree requirements for the Associate in Arts degree is the most typical curriculum if you are planning to transfer to a Liberal Arts program at a four-year college or university. It is essential that you consult with an academic advisor for the specific requirements of the college you plan to attend.

| Courses | Credit Hours |
| :---: | :---: |
| English 101, English Composition............................................................ 3 |  |
| English 102, English Composition | 3 |
| * Physical Education 200, Healthful Living, or |  |
| Physical Education 212, Health and Fitness, or |  |
| Physical Education 214, Personal Health. | ........ 1 or 3 |
| Political Science 101, National Government, or |  |
| Political Science 102, State Governments, or |  |
| History 201, American History to 1865, or |  |
| History 202, American History 1865 to Present |  |
| Mathematics 122, Intermediate Algebra (or above) | ... 4 |
| Humanities electives |  |
| Science electives |  |
| Social Science electives |  |
| Related requirements |  |

* Transferring students are encouraged to take PHED 212 or PHED 214.


## Transfer Opportunities

Lake Michigan College has worked with the following universities to develop program guides. These guides ensure that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

## Andrews University <br> Central Michigan University <br> Eastern Michigan University Grand Valley State University <br> Indiana University at South Bend <br> Oakland University <br> Western Michigan University

If you are interested in attending a school not listed here, please work with an academic advisor to build a program that will meet the requirements of your chosen school.

## About the Area of Study

The Liberal Arts curriculum transfers to the general programs of literature, arts, sciences, law, languages, and philosophy at most four-year colleges, universities, and to many pre-professional programs.

Liberal Arts provide a broad-based education to prepare students for most careers. At Lake Michigan College, students may complete courses that transfer and satisfy the freshman and sophomore requirements at most four-year institutions. Students should work closely with their advisor to check with four-year colleges or universities regarding specific group requirements and distributions of subject matter of their choice. There is a 61 -credit degree requirement needed for graduation.

Engineering/Manufacturing and Industrial Technology

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.
Degree Requirements Credit Hours
College Requirements
English 101, English Composition ..... 3
English 103, Report Writing, or English 102, English Composition. ..... 3

* Physical Education 200, Healthful Living, or
Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health1 or 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present ..... 3
Support Courses
** Mathematics 100, Applied Mathematics. ..... 4
** Mathematics 110, Technical Mathematics ..... 4
Physics 110, Technical Physics ..... 4
Major
**Machine Tool Technology 110, Machine Tool I ..... 3
** Machine Tool Technology 120, Machine Tool II ..... 3
Machine Tool Technology 129, Use Machinery's Handbook ..... 2
** Machine Tool Technology 130, Precision Inspection ..... 3
**Machine Tool Technology 140, Introduction to Numerical Control ..... 2
** Machine Tool Technology 150, Introduction to CAM ..... 2
Machine Tool Technology 220, Press Working/Mold Making ..... 3
Machine Tool Technology 241, CNC Programming I ..... 2
Machine Tool Technology 242, CNC Programming II ..... 2
Machine Tool Technology 251, 2D/3D Machining ..... 2
**Engineering 103, Beginning Engineering Drawing ..... 4
**Draffing \& Design 202, Tool Design II. ..... 3
** Industrial Maintenance Technology 109, Intro to Welding ..... 2
**Manufacturing 111, Manufacturing Processes I ..... 3
** Trade Related Instruction 134, Metallurgy and Heat Treating ..... 3
Computer Information Systems 102, Basic Computer Literacy ..... 1
Electives (electives are suggested, but not required) Industrial Maintenance Technology 110, MIG/TIG Welding ..... 3
*** Trade Related/Apprentice 107, Applied Geometry/Trigonometry. ..... 4
Machine Tool TEchnology 231, CMM Fundamentals. ..... 2
* Transferring students are encouraged to take PHED 212 or PHED 214.
** Classes required for certificate program.
***Course required for transfer to Machine Tool Technology Degree to Ferris State University.
Some courses may be offered in Open Entry/Open Exit (OE/OE) format. See course description.
This program articulates with the Occupational Education Studies (OES) program at Western Michigan University to prepare certified vocational teachers for high schools, technical centers and community colleges.
If you think you might be interested in teaching, please discuss the OES program with your advisor.
You can learn more about the OES program by visiting www.wmich.edu/coe/fcs/cte/oes Lake Michigan College • 2009-2010 College Catalog


## About the Area of Study

The Machine Tool Technology program provides basic and advanced machining skills. Class time is spent in the classroom as well as working in the lab on traditional metal cutting machinery and computer-numerically-controlled machines. If you have previous machining experience form a vocational high school program or industrial experience, you may qualify for advanced standing. Journeymen in the machine field are able to apply previous course work and experience toward an associate's degree. Career opportunities include CNC operator, CNC programmer, machine builder, machinist, and tool and die maker.

## Certificate and Degree Options

When you complete the 36 -credit Machine Tool Technology program, you may apply for Certificate in Industrial Technology. This allows you to enter the job market with basic, entry-level skills. Credit earned can be applied toward your associate's degree.

When you complete the 62 -credit Machine Tool Technology program, you may apply for an Associate in Industrial Technology degree in Machine Tool Technology.

## Transfer Option

The Machine Tool Technology associate's degree program transfers to Ferris State University's Manufacturing Engineering Technology program. See your advisor for more information.

## Sample Course Sequence

An advisor will help you make necessary changes to these recommended sequences.

## Certificate Program

| Semester 1 | Semester 2 |
| :---: | :---: |
| ENGR 103 | DRAF 202 |
| MACH 110 | INMT 109 |
| MACH 150 | MACH 120 |
| MANU 111 | MACH 130 |
| TRIN 134 | MACH 140 |
| MATH 100 | MATH 110 |
| Associate's Degree Program |  |
| Semester 1 | Semester 2 Semester 3 |
| ENGR 103 | CIS 102 MACH 130 |
| MACH 110 | MACH 120 MACH 241 |
| MACH 150 | MACH 140 PHED 200 |
| MANU 111 | MATH 110 POSC 101 or |
| MATH 100 | INMT 109 POSC 102 or |
| ENGL 101 | ENGL 102 or HIST 201 or |
| Semester 4 ENGL TRIN 134 |  |
|  |  |
| DRAF 202 | MACH 251 |
| MACH 220 PHYS 110 | PHYS 110 |
| MACH 220 |  |
| MACH 242 |  |
| www.lakemichigancollege.edu • 1-800-252-1562 |  |

Machine Tool Technology
Machine Tool Certificate - Program Code 347Numerical Control Specialty Certificate - Program Code 348Technology Certificate - Program Code 344Manufacturing Production Certificate - Program Code 366

## Level I Certificate Option

Upon completion of any of the listed programs, you will earn a Level I Certificate of Completion. These Level I certificates are a pathway into the Associate in Industrial Technology degree in Machine Tool Technology and General Technology. They are also a pathway into the Skilled Trades Technology associate degree (must be a registered apprentice with the Department of Labor.)

See page 89 for Machine Tool Technology associate's degree and certificate of achievement.

# Magnetic Resonance Imaging (MRI) int - 

Certificate of Achievement - Magnetic Resonance Imaging Program Code 242
Associate in Applied Science - Magnetic Resonance Imaging Program Code 240

Advisors: Kerry Mohney, (269) 927-8100 ext. 5093, mohney@lakemichigancollege.edu Student Services Academic Advising (269) 927-81 28

## Program Prerequisites

This program has special admission procedures based on a program specific GPA ranking and limited enrollment. A certain number of seats will be reserved for certified medical imaging professionals. See the specific admission requirements for Health Science students on page 14. Contact Student Services Academic Advising at ext. 8128 for an academic advising appointment or the Health Science office at ext. 5090 for complete details. An advisor will help you determine prerequisites that are required and designed to prepare you for training in the program.

## Prerequisite Courses

Biology 101, Biological Science, or
Biology 108, Basic Human Anatomy............................................................... 4
Prerequisite for Biology 205; see course description
Biology 205, Human Anatomy 4
Physics 101, Physical Science: Chemistry and Physics, or Chemistry 105, Fundamentals of Inorganic Chemistry ..... 4
Health 166, CPR/AED ..... 1
Health 165, Standard First Aid. ..... 1.5
Psychology 201, Introduction to Psychology ..... 3
Reading 110, Medical Terminology ..... 1
Transitional Studies Courses Vary
Additional courses may be needed based upon assessment results
Degree Requirements ..... Credit Hours
English 101, English Composition I. ..... 3
English 102, English Composition II ..... 3
Political Science 101, National Government, orPolitical Science 102, State Governments, or3
History 201, American History to 1865, or
History 202, American History 1865 to Present
Physical Education 200, Healthful Living ..... 1
Major Requirements
*Magnetic Resonance Imaging 100, Introduction to the MRI Patient. ..... 3
*Magnetic Resonance Imaging 101, Clinical Experience A ..... 1
*Magnetic Resonance Imaging 102, MRI Anatomy I ..... 3
*Magnetic Resonance Imaging 103, MRI Physics I ..... 3
*Magnetic Resonance Imaging 104, Image Analysis I ..... 2
*Magnetic Resonance Imaging 105, Clinical Experience B ..... 3
*Magnetic Resonance Imaging 106, MRI Anatomy II ..... 3
*Magnetic Resonance Imaging 107, MRI Physics II. ..... 3
*Magnetic Resonance Imaging 108, Image Analysis II ..... 2
*Magnetic Resonance Imaging 109, Clinical Experience C ..... 3
*Magnetic Resonance Imaging 110, MRI Anatomy III ..... 3
*Magnetic Resonance Imaging 111, Clinical Experience D ..... 3
Magnetic Resonance Imaging 112, Clinical Experience E ..... 5
Magnetic Resonance Imaging 113, Registry Review ..... 2
*Courses required for Certificate Program

## Magnetic Resonance Imaging Technology Program Handbook

 In addition to the rules stated in this catalog, MRI students are required to abide by the rules stated in the MRI Technology Program Handbook.
## About the Area of Study

The Magnetic Resonance Imaging (MRI) program trains you to become a Magnetic Resonance Imaging (MRI) technologist. The certificate program, for medical imaging professionals, includes one spring semester and one summer semester of course work. You will obtain clinical experience at local health care facilities in addition to formal classroom instruction provided on campus.
MRI technologists are employed in hospitals and imaging centers where they use sophisticated medical imaging equipment based on radiofrequency and magnetic principles. In addition to preparing patients and operating equipment, MRI technologists also work with radiologists, referring physicians and hospital management to assure quality patient care and diagnosis.
MRI technologists also serve in capacities such as departmental managers, technical advisors and applications specialists, sales and service for MRI manufacturers, and as educators.

## Program Accreditation

See program advisor for more details.

## Certificate and Degree Options <br> Medical Imaging professionals completing the

 32-credit program in Magnetic Resonance Imaging will be awarded a Certificate of Achievement Magnetic Resonance Imaging. The certificate can be applied to the associate's degree program. Students from a non-imaging background must complete the 63.5 -credit associate degree program for Magnetic Resonance Imaging.
## Certification Examination

Qualified graduates are eligible to sit for the ARRT's MRI certification exam. See the program advisor for details.

## Sample Course Sequence

Certificate Program

| Semester 1 | Semester 2 | Semester 3 | Semester 4 |
| :--- | :--- | :--- | :--- |
| MRIT 100 | MRIT 102 | MRIT 106 | MRIT 110 |
| MRIT 101 | MRIT 103 | MRIT 107 | MRIT 111 |
|  | MRT 104 | MRIT 108 |  |
|  | MRIT 105 | MRIT 109 |  |

## Associate Degree Program

| Semester 1 | Semester 2 | Semester 3 | Semester 4 |
| :--- | :--- | :--- | :--- |
| PHED 200 | ENGL 101 | ENGL 102 | MRIT 110 |
| MRIT 100 | MRIT 102 | MRIT 106 | MRIT 111 |
| MRIT 101 | MRIT 103 | MRIT 107 | POSC 101 or |
|  | MRIT 104 | MRIT 108 | 102 or HIST |
|  | MRIT 105 | MRIT 109 | 201 or 202 |

## Semester 5

MRIT 112
MRIT 113

## Management and Marketing

## Associate in Applied Business Degree program Code 151

Business, Management Marketing \& Technology

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course requirements.

## Degree Requirements

## Credit Hours

## College Requirements

English 101, English Composition................................................................... 3
English 102, English Composition, or English 103, Report Writing3
Physical Education 200, Healthful Living, orPhysical Education 212, Health and Fitness, orPhysical Education 214, Personal Health.or 3
Political Science 101, National Government, or Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present ..... 3
Support Courses
Psychology 201, Introduction to Psychology ..... 3
Communication 101, Introduction to Public Speaking ..... 3
Lab Science Elective Group la or 1b ..... 4
Major Requirements
Business Administration 100, Business Mathematics ..... 3
Business Administration 101, Business Accounting I, or Business Administration 201, Principles of Accounting ..... 3/4
Business Administration 103, Introduction to Business ..... 3
Business Administration 150, Job Search Seminar ..... 1
Business Administration 203, Principles of Economics (Macro), or Business Administration 204, Principles of Economics (Micro) ..... 3
Business Administration 205, Business Law I ..... 3
Business Administration 209, Principles of Marketing ..... 3
Business Administration 210, Business Correspondence ..... 3
Business Administration 211, Principles of Management. ..... 3
Computer Information Systems 108, Computer Operations-Microcomputing ..... 3
Business Electives (Select 13 credit hours)
Business Administration 261/263, Co-op I ..... 3
Business Administration 262/264, Co-op II ..... 3
Business Administration 104, Salesmanship ..... 3
Business Administration 105, Principles of Retailing ..... 3
Business Administration 115, Principles of Customer Service. ..... 3
Business Administration 116, Fundamentals of Quality Customer Service. .....  1
Business Administration 117, Customer Communication ..... 1
Business Administration 118, Special Customer Service Skills ..... 1
Business Administration 151, Marketing Career Development ..... 1
Business Administration 201, Principles of Accounting I. ..... 4
Business Administration 202, Principles of Accounting II ..... 4
Business Administration 203, Principles of Economics (Macro) ..... 3
Business Administration 204, Principles of Economics (Micro) ..... 3
Business Administration 207, Small Business Management ..... 3
Business Administration 208, Advertising \& Sales Promotion ..... 3
Business Administration 216, Business Statistics ..... 3
Philosophy 250, Sophomore Seminar in Philosophy ..... 3
Business Administration 220, Organizational Behavior .....  3

## About the Area of Study

The Management \& Marketing program prepares you for entry-level management positions in business and industry, including retail and wholesale. As a graduate, you will find employment opportunities in areas such as personnel administration, customer relations, advertising, sales, and merchandising. An important feature of the program is the chance to earn college credit for cooperative work experience.

## Associate's Degree

By completing the 61-credit program in Management and Marketing you may apply for the of Associate in Applied Business degree.

## Transfer Options

Students planning to transfer to a four-year business school should work closely with a Management \& Marketing advisor to ensure optimum transferability.

## Sample Course Sequence

An advisor will help you make necessary changes to this recommended sequence.

## Associate's Degree Program

| Semester 1 | Semester 2 |
| :--- | :--- |
| ENGL 101 | ENGL 102 or |
| CLS 100 | ENGL 103 |
| PHED 200 | POSC 101 |
| BUSA 103 | POSC 102 |
| COMM 101 | HIST 201 |
| BUSA 100 | HIS5 202 |
| CIS 108 | BUSA 209 |
|  | BUSA 211 |
|  | BUSA Electives |
| Semester 3 | Semester 4 |
| PSYC 201 | BUSA 150 |
| BUSA 101 | BUSA 210 |
| BUSA 201 | BUSA 203 |
| BUSA 205 | BUSA 204 |
| BUSA Electives | BUSA Electives |



Business, Management Marketing \& Technology

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successful completion of the recommended classes. See course descriptions for specific course prerequisites.

## Level I Customer Service Certificate

BUSA 103, Introduction to Business ..... 3
BUSA 115, Principles of Customer Service ..... 3
BUSA 209, Principles of Marketing ..... 3
BUSA 210, Business Correspondence ..... 3
CIS 108, Computer Operations, Microcomputing ..... 3
Total Credit Hours ..... 15

## Level I Certificate Option

Upon completion of the listed program, you may apply for a Level I Certificate of Completion. This Level I certificate is a pathway into the Associate in Applied Business degree in Management and Marketing as well as the Associate in Business Administration degree.

See page 92 for Management and Marketing associate degree.

# Manufacturing Engineering for Western Michigan University 

Program Code 265

Engineering/Manufacturing and Industrial Technology

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.College RequirementsEnglish 101, English Composition.
Credit HoursEnglish 102, English Composition, oEnglish 103, Report Writing3

* Physical Education 200, Healthful Living, orPhysical Education 212, Health and Fitness, orPhysical Education 214, Personal Healthor 3
Political Science 101, National Governments, or Political Science 102, State Government, or History 201, American History to 1865, or History 202, American History 1865 to Present ..... 3
Program Requirements
Chemistry 111, General Chemistry I ..... 4
Computer Information Systems 254, C Programming ..... 3
Communications 101, Public Speaking ..... 3
Engineering 103, Beginning Engineering Drawing ..... 4
Mathematics 151, Calculus ..... 5
Mathematics 201, Calculus II ..... 5
Mathematics 202, Calculus III ..... 5
Mathematics 252, Differential Equation ..... 4
Physical Education 220, Healthful Living II ..... 2
Philosophy 102, Intro to Logic ..... 3
Physics 201, Engineering Physics I ..... 5
Physics 202, Engineering Physics II ..... 5
Art, Drama, Humanities or Music Group III elective ..... 3


## About the Area of Study

The Manufacturing Engineering program is specifically designed to meet the requirements for the Bachelor of Science in Engineering
(Manufacturing) program at Western Michigan University. If you are interested in transferring to another university, please work directly with an LMC advisor to determine the transferability of this program

## Degree Option

By completing the 61-credit program in Manufacturing Engineering, you may apply for an Associate in Applied Science degree.

## Sample Course Sequence

| Year 1-Fall | Year 1 - Winter |
| :--- | :--- |
| ENGL 101 | ENGG . 102 or 103 |
| MATH 151 | MATH 201 |
| PHYS 201 | PHYS 202 |
| POSC 101, or | COMM 101 |
| POSC 102, or |  |
| HIST 201, or |  |
| HIST 202 |  |

Year 2 - Fall
Year 2 - Winter
MATH 202
CHEM 111
ENGR 103
Group III elective or
CIS 254
MATH 252
PHIL 102
CIS 254
COMM 101
PHED 220
*Transferring students are encouraged to take PHED 212 or PHED 214.
Advisors: Chris Bendixen, (269) 927-8100, ext. 5176, bendixen@lakemichigancollege.edu Dr. Gerry Cox, (269) 927-8100, ext. 5077, cox@lakemichigancollege.edu Mimi Elwell, (269) 927-8100, ext. 5074, elwell@lakemichigancollege.edu Jim Larson, (269) 927-8100, ext. 5148, larson@lakemichigancollege.edu


## About the Area of Study

Mathematics is an art, science, and language that encompasses the beauty of pattern and structure, the challenge of uncertainty and abstraction, and the excitement of solving problems. It provides a foundation for much of modern human society. Courses cover the range of basic mathematical functions to more advanced work with calculus, statistics and differential equations. Mathematics students hone their ability to reason effectively and write clearly.

Many careers are open to Mathematics majors. Some pursue graduate degrees or become teachers, and others choose among several professions. Potential fields include law, medicine, business, communication, actuarial science, academic or industrial research, consulting, writing, editing, computer science, statistics, and operations research. Consult a faculty advisor for specific guidance. There is a 61-credit degree requirement needed for graduation.

## Program Prerequisites

You must demonstrate 45 wpm proficiency in typing prior to acceptance at KVCC. For Lake Michigan College courses, you must demonstrate proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.

## Degree Requirements

Credit Hours

## First Year Courses at Lake Michigan College <br> English 101, English Composition <br> 3

English 103, Report Writing ..... 3
Biology 101, Biological Science ..... 4
Biology 108, Basic Anatomy and Physiology, or Biology 205, Human Anatomy ..... 4
Computer Information Systems 102, Basic Computer Literacy, or Computer Information Systems 108, Computer Operations- Microcomputing 1/3
Political Science 101, National Government, or
Political Science 102, State Governments ..... 3
Psychology 201, Introduction to Psychology ..... 3
Physical Education, Elective ..... 2
Office Information Systems 217, Intro to Word Processing Applications ..... 3
Office Information Systems 208, Medical Transcription ..... 3
Major Requirements (at KVCC)
See KVCC program information at www.kvcc.edu

## About the Area of Study

Lake Michigan College provides the first year of a three-year Associate in Applied Science degree in Medical Assistant Technology offered by KVCC. The program is fully accredited by the Commission on Accreditation of Allied Health Education Programs.

You will enroll simultaneously at Lake Michigan College and KVCC, take the first-year courses at Lake Michigan College, and then transfer to KVCC for the final two years of medical assistant courses.

## Associate's Degree

Upon completion of the KVCC program, graduates receive an Associate in Applied Science degree through KVCC.

## Sample Course Sequence

An advisor will help you make necessary changes to this recommended sequence.

## Associate's Degree Program <br> Semester 1 Semester 2 <br> ENGL 101 ENGL 103 <br> BIOL 101 BIOL 108 <br> POSC 101 BIOL 205 <br> POST 102 <br> CIS 102 <br> CIS 108 <br> PSYC 201 <br> PHED Elective <br> OIS 208

Years 2 \& 3 taken at KVCC.

Business, Management Marketing \& Technology

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.
Associate Degree Requirements Credit Hours
College Requirements
*English 101, English Composition .. ..... 3
English 103, Report Writing ..... 3

* Physical Education 200, Healthful Living, or
Physical Education 214, Personal Health ..... 1 or 3
Political Science 101, National Government, or Political Science 102, State Governments, or History 201, American History to 1865, or History 202, American History 1865 to Present ..... 3
Support Courses
Electives, Group I, II, or III (see page 29) ..... 3
Communication 101, Introduction to Public Speaking ..... 3
Biology 205, Human Anatomy ..... 4
Major Requirements
** Reading 110, Medical Terminology Vocabulary ..... 1
Business Administration 210, Business Correspondence ..... 3
*** Computer Information Systems 123, Spreadsheet Skills ..... 1
*** Computer Information Systems 223, Advanced Spreadsheet Skills ..... 1
** Office Information Systems 114, Intermediate Keyboarding ..... 3
** Office Information Systems 125, Records Management ..... 3
** Office Information Systems 201, Advanced Keyboarding ..... 3
** Office Information Systems 208, Medical Transcription ..... 3
** Office Information Systems 211, Office Procedures. ..... 3
** Office Information Systems 217, Introduction to Word Processing Applications ..... 3
** Office Information Systems 218, Advanced Word Processing Applications ..... 3
** Office Information Systems 220, Medical Office Procedures ..... 3
*** Office Information Systems 261, Office Co-op I ..... 3
Program Electives (Select 8 credit hours for degree, 2-3 hours for certificate)*** Business Administration 100, Business Mathematics.3
*** Business Administration 101, Business Accounting ..... 3
Business Administration 103, Introduction to Business ..... 3
*** Business Administration 150, Job Search Seminar ..... 1
Business Administration 209, Principles of Marketing ..... 3
Business Administration 211, Principles of Management ..... 3
*** Computer Information Systems 106, Introduction to Operating Systems ..... 3
*** Computer Information Systems 111, Database Concepts ..... 3
Health 120, Health and Health Occupations. ..... 2
Office Information Systems 262, Office Co-op II ..... 3
* Transferring students are encouraged to take PHED 212 or PHED 214** Classes required for certificate program.*** Electives for certificate program.
Some courses may be offered in an Open Entry/Open Exit (OE/OE) format
See course description.
You should notify your advisor and the Co-op Coordinator of your intention to takeOIS 261 or OIS 262 before beginning your second-year classes.


## About the Area of Study

The Medical Office Systems program prepares you for a highly skilled job in the health care industry. You will learn medical transcription, medical office procedures, medical terminology, computer soffware, and keyboarding. As an medical office assistant you may perform a variety of administrative activities in physicians' offices, hospitals, nursing homes, pharmaceutical companies, government agencies, or other health agencies.

## Certificate \& Degree Options

By completing the 30 -credit program in Medical Office Systems, you will be awarded a Certificate of Achievement - Medical Office Assistant. The certificate can be applied to the associate's degree program.

By completing the 61-credit program in Medical Office Systems, you may apply for an Associate in Applied Business degree.

## Transfer Options

This degree transfers to Siena Heights University's Bachelor of Applied Science program. Work with your LMC advisor if you wish to transfer to another college or university's bachelor degree program.

## Sample Course Sequence

An advisor will help you make necessary changes to these recommended sequences.

| Certificate | Program |
| :--- | :--- |
| Semester 1 | Sememeter 2 |
| ONGG |  |
| OIS 201 | OIS |
| OIS 114 | OS 208 |
| OS 211 | OIS 218 |
| OIS 217 | OIS 220 |
| Program Elective | READ 110 |
|  | OIS 125 |

Associate's Degree Program

| Semester 1 | Semester 2 | Semester 3 |
| :--- | :--- | :--- |
| ENGL 101 | ENGL 102 | BIOL 205 |
| OIS 114 | ENGL 103 | OIS 125 |
| BUSA 210 | OIS 201 | POSC 101 or |
| OIS 211 | OIS 218 | POSC 102 or |
| OIS 217 | PHED 200 | HIST 201 or |
|  | READ 110 | HIST 202 |
|  | Program Elective | Program Elective |
|  | CIS 123 | Program Elective |
|  |  | CIS 223 |

## Semester 4

OIS 208
OIS 220
OIS 261
COMM 101
General Elective

# Medicine \& Osteopathic Medicine (Pre) 

Associate in Science Degree - TRANSFER PROGRAM Program Code 084
Advisors: Dr. William Yamokoski, (269) 927-8100, ext. 5153, yamokosk@lakemichigancollege.edu


## Sample Transfer Program

The following is a sample college transfer program. It is essential that you work with an academic advisor to develop an individualized program that meets the specific requirements of the college you plan to attend.

## Courses

Credit Hours
English 101, English Composition..................................................................... 3
English 102, English Composition. .3

* Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health $\qquad$ 1 or 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present......................................... 3
Mathematics 151, Calculus I .......................................................................... 5
Biology 111, Principles of Biology I................................................................. 4
Biology 112, Principles of Biology II............................................................... 4
Chemistry 111, General Chemistry I................................................................ 4
Chemistry 112, General Chemistry II ............................................................... 4
Chemistry 203, Organic Chemistry I.............................................................. 4
Chemistry 204, Organic Chemistry II.............................................................. 4
Physics 101, General Physics I ....................................................................... 5
Physics 102, General Physics II....................................................................... 5
Humanities electives
Social Science electives
* Transferring students are encouraged to take PHED 212 or PHED 214.


## Transfer Opportunities

If you are planning to transfer to a four-year college, you should become familiar with your chosen school's requirements. See your advisor for assistance in planning your individualized program of study.

## About the Area of Study

Medical schools have increased their interest in students with diverse academic training. In addition to expecting basic studies in biology, chemistry, physics, and mathematics, they want students with interests and skills in humanities and social sciences.

Since minimum admission requirements vary among medical and osteopathic medical schools, you should work with the Pre-Medical advisor to become familiar with the medical school in which you are interested. The PreMedical advisor will assist you in planning your programs. There is a 61-credit degree requirement needed for graduation.

Associate in Science Degree - TRANSFER PROGRAM Program Code 085
Advisors: Dr. Fran Miles (269) 695-2986, miles@lakemichigancollege.edu Frank Stijnman (269) 927-8100 ext. 5256, stijnman@lakemichigancollege.edu

## Sample Transfer Program


#### Abstract

The following is a sample college transfer program. It is essential that you work with an academic advisor to develop an individualized program that meets the specific requirements of the college you plan to attend.

It is important to begin the science and math sequence as soon as possible to efficiently complete the coursework. Be sure to determine readiness for the math and science courses as many students need to begin with lower level math and science coursework to successfully complete the required courses.


## Courses

English 101, English Composition Credit Hours

English 102, English Composition. 3
Ph

* Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health............................................... 1 or 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present........................................ 3
Mathematics 128, Pre-Calculus Algebra ......................................................... 4
Biology 111, Principles of Biology I................................................................. 4
Biology 205, Human Anatomy ......................................................................... 4
Business 201, Principles of Accounting I.......................................................... 4
Chemistry 111, General Chemistry I............................................................... 4
Chemistry 112, General Chemistry II .............................................................. 4
Humanities electives
Social Science electives
* Transferring students are encouraged to take PHED 212 or PHED 214.


## Transfer Opportunities

Lake Michigan College has worked with the following university to develop a program guide. This guide ensures that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

## Wayne State University

If you are interested in attending a school not listed here, please work with a counselor or academic advisor to build a program that will meet the requirements of your chosen school.

## About the Area of Study

A one-year Mortuary Science program is offered at Wayne State University and requires 60 semester hours of undergraduate credit. A two-year sequence of courses, which includes those that fulfill the requirements of the Associate in Science degree at Lake Michigan College, is designed for students who plan to transfer to Wayne State University and pursue the Pre-Mortuary curriculum. Consult the faculty advisor for specific guidance. There is a 61-credit degree requirement needed for graduation.

## Associate in Arts Degree - TRANSFER PROGRAM

Advisor: Daniel Hendrickson, (269) 927-6588, hendrick@lakemichigancollege.edu Dr. Elfie Schults-Berndt, (269) 927-8192, berndt@lakemichigancollege.edu

## Sample Transfer Program

Meeting the degree requirements for the Associate in Arts degree with a Music emphasis requires more general education coursework than the Associate in Applied Science degree with a Music emphasis. Students electing the A.A. degree will transfer with course deficiencies in music unless they enroll for a third year or take additional courses during spring and summer terms.

In addition to the general education courses listed below, music students also participate in ensembles, take applied lessons, and complete music theory and history courses. It is essential that you consult with an academic advisor for the specific requirements of the college you plan to attend.

## Courses

English 101, English Composition................................................................... 3
English 102, English Composition. .3

* Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health $\qquad$ 1 or 3
Political Science 101, National Government, or Political Science 102, State Governments, or History 201, American History to 1865, or History 202, American History 1865 to Present3
Mathematics 122, Intermediate Algebra (or above) ..... 4

Humanities electives

Science electives
Social Science electives
Related requirements

* Transferring students are encouraged to take PHED 212 or PHED 214.


## Transfer Opportunities

Lake Michigan College has worked with the following universities to develop program guides. These guides ensure that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

## Central Michigan University <br> Michigan State University <br> University of Michigan <br> Western Michigan University

If you are interested in attending a school not listed here, please work with an academic advisor to build a program that will meet the requirements of your chosen school.

## Career Options

The field of music offers many possibilities for a fulfilling and rewarding career. Job opportunities exist in diverse areas such as music education, music therapy, music technology, church music, songwriting, performing, publishing, licensing, music business, instrument building and repair, and many others. Completing an associate's degree with a music concentration can provide the first step in preparing for a career as a musician.

## About the Area of Study

The Music curriculum prepares you for opportunities that require a traditional degree and provides an outlet for your performance skills. Coursework is available if you are interested solely in advancing your music skills or earning the first two years of a four-year degree in Music leading to the Bachelor of Arts, Bachelor or Music Education, or Bachelor of Science degree.

Applied music courses give you direct contact with performance faculty who help you improve your technical competence on your instrument or in voice. Music theory and history are offered for a better appreciation of the art form. Symphonic Wind Ensemble, Concert Choir, Jazz Band, and "Voices LMC" are open to all students through audition and afford regular performance opportunities.

If you plan to transfer to a four-year school, you should become familiar with the curriculum of your transfer school and consult with your advisor before outlining your program. If you are entering the Music major program, you should have been a member of instrumental or choral performance groups during high school, and should be able to demonstrate high levels of academic and musical achievement. Consult a music faculty advisor for specific guidance. There is a 61-credit degree requirement needed for graduation.

Advisor: Daniel Hendrickson, (269) 927-6588, hendrick@lakemichigancollege.edu Dr. Elfie Schults-Berndt, (269) 927-8192, berndt@lakemichigancollege.edu

## Sample Transfer Program

Meeting the degree requirements for the Associate in Applied Sciences degree is the most typical curriculum if you are planning to transfer to the Music program at a four-year college or university. As a music student, you will also participate in ensembles, take applied lessons, and complete music theory and history courses. It is essential that you consult with a music advisor for the specific requirements of the college you plan to attend.

## Courses Semester hours

## Liberal Arts \& Sciences Credits

College Requirements ..... 10
Group I, II, III (In at least two areas) (see page 29) ..... 11

## Music electives

Basic Music/Aural Comprehension................................................................ 16
Music History............................................................................................... 6
Piano class ...................................................................................................... 4
42 hours
Applied music............................................................................................ 8
Ensembles..................................................................................................... 8
TOTAL HOURS 63 semester hours

## Transfer Opportunities

Lake Michigan College has worked with the following universities to develop program guides. These guides ensure that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

## Central Michigan University <br> Michigan State University <br> University of Michigan <br> Western Michigan University

If you are interested in attending a school not listed here, please work with an academic advisor to build a program that will meet the requirements of your chosen school.

## Career Options

The field of music offers many possibilities for a fulfilling and rewarding career. Job opportunities exist in diverse areas such as music education, music therapy, music technology, church music, songwriting, performing, publishing, licensing, music business, instrument building and repair, and many others. Completing an associate's degree with a music concentration can provide the first step in preparing for a career as a musician.

## About the Area of Study

The principal degree offered with a concentration in music is the Associate in Applied Sciences. If your goal is to complete a Bachelor's degree in music or a music-related field, you may complete the first two years of your coursework at LMC. An audition is required for acceptance into the program, to be properly placed in an applied music level, to match your abilities with an ensemble, and to decide on scholarship awards. For further information on specific audition requirements, please contact the Performing Arts Office (269) 927-8111 ext. 5237.

The program provides professional training that emphasizes music performance for students intending to pursue careers in music and music-related fields. It provides nonmajors the opportunity to enrich their general education with survey courses, with general electives such as applied music courses, and with ensemble participation. The program also serves as a cultural resource center for students, the college community and beyond.

If you plan to transfer to a four-year school, you should become familiar with the curriculum of your transfer institution and consult with your advisor before outlining your program. There is a 63 -credit degree requirement needed for graduation.

## Associate in Science Degree - TRANSFER PROGRAM

Advisor: William Rudman, (269) 927-8100 ext. 5071, rudman@lakemichigancollege.edu Dr. Paige Eagan, (269) 927-8100 ext. 5257, eagan@lakemichigancollege.edu Dr. Bal Barot, (269) 927-8100 ext. 5072, baroł@lakemichigancollege.edu

Engineering/Manufacturing and Industrial Technology

## Sample Transfer Program

The following is a sample college transfer program. It is essential that you work with an academic advisor to develop an individualized program that meets the specific requirements of the college you plan to attend.

It is important to begin the science and math sequence as soon as possible to efficiently complete the coursework. Be sure to determine readiness for the math and science courses as many students need to begin with lower level math and science coursework to successfully complete the required courses.

## Courses

English 101, English Composition.3

English 102, English Composition, or English 103, Report Writing3

* Physical Education 200, Healthful Living, or

Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health 1 or 3
Mathematics 151, Calculus I ........................................................................... 5
Mathematics 201, Calculus II .......................................................................... 5
Mathematics 202, Calculus III.......................................................................... 5
Mathematics 252, Differential Equation ........................................................... 4
Chemistry 111, General Chemistry I............................................................... 4
Chemistry 112, General Chemistry II ................................................................ 4
Computer Information Systems 233, Fortran..................................................... 5
Physics 201, Engineering Physics I.................................................................. 5
Physics 202, Engineering Physics II ................................................................. 5
Social Science elective
Humanities elective
Chemical Engineering may also need to take:
Chemistry 203, Organic Chemistry I 4
Chemistry 204, Organic Chemistry II 4

* Transferring students are encouraged to take PHED 212 or PHED 214.

This program is not affiliated with the Energy Program.

Pre-Nursing Advisors: Student Services Academic Advising at (269) 927-8128 Transfer students and re-admission students should call Delores Jackson at (269) 927-8100 ext. 5092 for information. Appointments are made by the Health Science secretary by calling (269) 927-8100 ext. 5090.

## Admission Requirements

The Nursing programs have special admission procedures and limited enrollment. Please see the specific admission requirements for health science students on page 14. An academic advisor will help you determine your eligibility and, if necessary, recommend Lake Michigan College courses designed to prepare you for training in the desired program.
Prerequisite Courses Credit Hours
Reading 110, Medical Terminology Vocabulary (or equivalent). .....  1
Transitional Studies Courses ..... varies
Determined based on assessment results
Biology 101, Biological Science, or
Biology 108, Basic Humn A-D, or
Prerequisite to BIOL 205; see course description ..... 4
Computer Information Systems 102, Basic Computer Literacy (or equivalent - except Keyboarding) ..... 1
Chemistry 105, Fundamentals of Inorganic Chemistry ..... 4
Prerequisite to BIOL 206; see course description
Pre-Program Course
Biology 205, Human Anatomy. ..... 4
Certificate Requirements ..... Credit Hours
Support Courses
Biology 206, Human Physiology. ..... 4
English 101, English Composition. ..... 3
Psychology 201, Introduction to Psychology ..... 3
Psychology 203, Human Development ..... 3
Major
Nursing 180, Nursing Fundamentals ..... 6
Nursing 130, Pharmacology I ..... 2
Nursing 185, Women's Health ..... 4
Nursing 186, Medical-Surgical Nursing I ..... 3
Nursing 187, Medical-Surgical Nursing II ..... 3
Nursing 135, Pharmacology II ..... 2
Nursing 190, Child Nursing. ..... 3
Nursing 191, Adult Nursing. ..... 4
Nursing 192, Advanced Medical-Surgical Nursing ..... 5
Nursing 288, Current Issues in Nursing. ..... 1

Note: Students must have at least a "C" grade in all Science and all Nursing classes. There is a ten-year time limit on science courses accepted for graduation.

Note: BIOL 206 has prerequisites, including CHEM 101 (prior to Fall 2006) or CHEM 105 and BIOL 205, that must be taken prior to admission into the Nursing program. CIS 102 is a basic computer class with hands-on experience on a PC. Recommended alternate equivalent course for CIS 102 are CIS 100 and CIS 122.

Entrance into each semester of Nursing classes requires completion of all courses, including General Education courses, from the previous semester. General Education classes may be taken earlier, but not later, than listed.

## Sample Course Sequence

The following course sequences are recommended if you want to complete the entire LPN in one year. It is a rigorous schedule and many students prefer to ease the load by completing some or all of the general education requirements prior to beginning nursing classes. An advisor will help you make necessary changes to this sample schedule.

## Certificate Program

Semester 1 Semester 2
BIOL 206 PSYC 203
ENGL 101 NURS 185
PSYC 201 NURS 186
NURS 180 NURS 187
NURS 130 NURS 135
Semester 3 Semester 4
NURS 190 NURS 192
NURS 191 NURS 288

Nursing (Practical) continued

## About the Area of Study

Lake Michigan College's Practical Nursing program is approved by the Michigan Board of Nursing. Graduates qualify to take the National Council Licensure Exam for practical Nurses (NCLEX-PN).

Students enrolled in the one-year Practical Nursing program share the same first two semesters with those enrolled in the Registered Nursing program. The differences in the programs are College graduation and Support Course requirements.

This arrangement makes it possible for LMC's Practical Nursing graduates and other Licensed Practical Nurses (LPNs) who meet Advanced Standing requirements (see nursing student handbook or program advisor) to enter the second year of the nursing program after completing the Support Courses from the first year of the program and qualifying for admission to the associate's degree program.

Nursing program applicants should be aware that the Michigan Board of Nursing, in its Practice Act, states that it can deny a license to an applicant if any of the following are true:

1. Has been convicted of a criminal offense in a court of law.
2. Is habitually intemperate in the use of alcoholic beverages.
3. Is addicted to, or has improperly obtained, possessed, used or distributed habit-forming drugs or narcotics.
4. Is guilty of dishonesty or unethical conduct.
5. Has violated or aided or abetted others in violation of any provision of this act.

This is not an inclusive list. If there are questions about a situation, please call the Board of Nursing, (517) 335-0918, and/or check in the Nursing lab for a copy of the Public Health Code.

## Clinical Assignments

In addition to classroom work, you will participate in clinical assignments. The eight-hour or 12 hour shifts are scheduled during days, evenings, and weekends at facilities throughout the region and attendance is required. Because clinical schedules are not flexible, you will need to work your schedule around these times, have dependable child care, and have access to dependable transportation in order to travel to the assignments. You should also plan for additional time outside of the printed schedule for practice, clinical preparation, and study.

## Expenses

As a student in the Nursing program, you should expect costs greater than the average LMC student. These additional costs will include a greater number of textbooks, school-approved uniforms, a pre-program physical exam, immunization for specified communicable diseases, nametags, testing and background checks.

## Nursing Program Handbook

In addition to the rules stated in this catalog, Lake Michigan College Nursing students are required to abide by rules stated in the Nursing Student Handbook. You can get a copy of the LIMB from the Health Science advisor or review it in the College library.

## Transfer Options

Lake Michigan College's Nursing program is designed to transfer to Andrews University, Ferris State University, Grand Valley State University or Western Michigan University which operate degree completion programs for a bachelor's degree in Nursing, or to other four-year institutions depending on their policies. Talk to the Lake Michigan College Nursing program advisor for more information about transferring credit. Lake Michigan College has formal articulation agreements with Ferris State University and Western Michigan University.

Because the Licensed Practical Nursing program is a ladder program (see the Nursing Handbook), students have transferability options to other community colleges or universities. Licensed Practical Nursing may attend Lake Michigan College to obtain their RN-AD or transfer to other schools who have LPN-RN programs.

## Associate in Applied Science Degree Program Code 210

Pre-Nursing Advisors: Student Services Academic Advising at (269) 927-8128
Transfer students and re-admission students should call Delores Jackson at (269) 927-8100 ext. 5092 for information.
Appointments are made by the Health Science secretary by calling (269) 927-8100 ext. 5090.


Health Sciences

## Admission Requirements

The Nursing programs have special admission procedures and limited enrollment. Please see the specific admission requirements for health science students on page 14. Contact the Admissions Office for complete details. An advisor will help you determine your eligibility and, if necessary, recommend Lake Michigan College courses designed to prepare you for training in the desired program.

## Prerequisite Courses

Reading 110, Medical Terminology Vocabulary (or equivalent).......................................
Transitional Studies Courses ............................................................................................................ Determined based on assessment results
Biology 101, Biological Science, or Biology 108, Basic Humn A-D, or
Prerequisite to BIOL 205; see course description ............................................................ 4
Computer Information Systems 102, Basic Computer Literacy . .1 (or substitute)
Chemistry 101, Introductory Chemistry I (only if taken prior to Fall 2006), or
Chemistry 105, Fundamentals of Inorganic Chemistry .................................................... 4 Prerequisite to BIOL 206; see course description
Pre-Program Course
Biology 205, Human Anatomy ... .4

## College Requirements

English 101, English Composition............................................................................... 3
English 102, English Composition (not ENGL 103)..................................................................................................
Political Science 101, National Government, or Political Science 102, State Governments, or History 201, American History 1865, or History 202, American History 1865 to Present ...................................................... 3
Physical Education 200, Healthful Living ....................................................................... 1

## Support Courses

Biology 206, Human Physiology ............................................................................................. 4
Psychology 201, Introduction to Psychology ................................................................... 3
Psychology 203, Human Development .......................................................................... 3
Sociology 101, Principles of Sociology......................................................................... 3
Hospitality Management 113, Nutrition \& Diet Therapy ................................................. 3

## Major

Nursing 180, Nursing Fundamentals ........................................................................... 6
Nursing 130, Pharmacology I ...................................................................................... 2
Nursing 185, Women's Health .................................................................................... 4
Nursing 186, Medical-Surgical Nursing I...................................................................... 3
Nursing 187, Medical-Surgical Nursing II..................................................................... 3
Nursing 135, Pharmacology II .................................................................................... 2
Nursing 280, Community Mental Health ........................................................................ 4
Nursing 281, Medical-Surgical Nursing III ..................................................................... 3
Nursing 282, Medical-Surgical Nursing IV.................................................................... 3

Nursing 286, Medical-Surgical Nursing V .................................................................... 3
Nursing 287, Medical-Surgical Nursing VI................................................................... 3
Nursing 288, Current Issues in Nursing........................................................................ 1
Note: Students must have at least a " $\mathrm{C}^{\prime}$ grade in all science and all nursing classes. There is also a ten-year time limit on science courses accepted for graduation.

Note: BIOL 206 has prerequisites, including CHEM 101 (Prior to fall 2006), or CHEM 105 and BIOL 205, that must be taken prior to admission into the Nursing program. CIS 102 is a basic computer class with hands-on experience on a PC. Recommended alternate equivalent courses for CIS 102 are CIS 100 and CIS 122.

## Sample Course Sequence

The following course sequences are recommended if you want to complete the entire ADN RN in two years. It is a rigorous schedule and many students prefer to ease the load by completing some or all of the general education requirements prior to beginning nursing classes. An advisor will help you make necessary changes to this sample schedule.

## Associate's Degree Program

| Semester 1 | Semester 2 | Semester 3 |
| :--- | :--- | :--- |
| BIOL 206 | PSYC 203 | ENGL 102 |
| ENGL 101 | NURS 185 | HOSP 113 |
| PSYC 201 | NURS 186 | PHED 200 |
| NURS 180 | NURS 187 |  |
| NURS 130 | NURS 135 |  |
| Semester 4 | Semester 5 |  |
| SOC 101 | POSC 101 or |  |
| NURS 280 | POSC 102 or |  |
| NURS 281 | HIST 201 or |  |
| NURS 282 | HIST 202 |  |
|  | NURS 285 |  |
|  | NURS 286 |  |
|  | NURS 287 |  |
|  | NURS 288 |  |

## Program Accreditation

The associate's degree Nursing program is approved by the Michigan Board of Nursing and is accredited by the National League for Nursing Accrediting Commission (NLNAC), 61 Broadway, New York, NY 10006, Phone: 212-363-5555. This agency is a resource for information about length of programs and required tuition and fees. There is a 67-credit degree requirement needed for graduation.

## Nursing (Registered) continued

Entrance into each semester of Nursing classes requires completion of all courses, including General Education courses, from the previous semester. General Education classes may be taken earlier, but not later, than listed.

## About the Area of Study

The Associate Degree Nursing (ADN) program qualifies graduates to take the National Council Licensure Exam (NCLEX-RN) leading to state licensure as a Registered Nurse (RN).

Students enrolled in the two-year associate's degree program (RN) or the one-year Practical Nursing program (PN) share the same first two semesters. The differences in the programs are College graduation and support course requirements. This arrangement makes it possible for LMC's Practical Nursing graduates and other Licensed Practical Nurses (LPNs) who meet Advanced Standing requirements (see nursing student handbook or program advisor) to enter the second year of the nursing program after completing the support courses from the first year of the program and qualifying for admission to the associate's degree program.

Nursing program applicants should be aware that the Michigan Board of Nursing, in its Practice Act, states that it can deny a license to an applicant if any of the following are true:

1. Has been convicted of a criminal offense in a court of law.
2. Is habitually intemperate in the use of alcoholic beverages.
3. Is addicted to, or has improperly obtained, possessed, used or distributed habit-forming drugs or narcotics.
4. Is guilty of dishonesty or unethical conduct.
5. Has violated or aided or abetted others in violation of any provision of this act.

This is not an inclusive list. If there are questions about a situation, please call the Board of Nursing, (517) 335-0918, and/or check in the Nursing lab for a copy of the Public Health Code.

## Clinical Assignments

In addition to classroom work, you will participate in clinical assignments The eight-hour or 12-hour shifts are scheduled during days, evenings, and weekends at facilities throughout the region and attendance is required. Because clinical schedules are not flexible, you will need to work your schedule around these times, have dependable child care, and have access to dependable transportation in order to travel to the assignments. You should also plan for additional time outside of the printed schedule for practice, clinical preparation, and study.

## Nursing Program Handbook

In addition to the rules stated in this catalog, Lake Michigan College Nursing students are required to abide by rules stated in the Nursing Student Handbook. You can get a copy of the Nursing Student Handbook from the Health Science advisor or review it in the William Hessel library.

As a student in the Nursing program, you should expect costs greater than the average LMC student. These additional costs will include a greater number of textbooks, school-approved uniforms, a pre-program physical exam, immunization for specified communicable diseases, name tags, testing and background checks.

## Transfer Options

LMC's Nursing program is designed to transfer to Andrew University, Ferris State University, Grand Valley State University, or Western Michigan University which operate degree completion programs for a bachelor's degree in Nursing, or to other four-year institutions depending on their policies. Talk to the LMC Nursing program advisor for more information about transferring credit. LMC has formal articulation agreements with Ferris State University and Western Michigan University.

## Sample Transfer Program

## The following is a sample college transfer program. It is essential that you work with an academic advisor to develop an individualized program that meets the specific requirements of the college you plan to attend.

It is important to begin the science and math sequence as soon as possible to efficiently complete the coursework. Be sure to determine readiness for the math and science courses as many students need to begin with lower level math and science coursework to successfully complete the required courses.

## Courses Credit Hours

English 101, English Composition.................................................................. 3
English 102, English Composition................................................................... 3

* Physical Education 200, Healthful Living, or

Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health............................................... 1 or 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present........................................ 3
Mathematics 151, Calculus I ........................................................................... 5
Biology 111, Principles of Biology I................................................................... 4
Biology 112, Principles of Biology II.................................................................. 4
Chemistry 111, General Chemistry I............................................................... 4
Chemistry 112, General Chemistry II .............................................................. 4
Physics 101, General Physics I ...................................................................... 5
Physics 102, General Physics I ...................................................................... 5
Humanities electives
Social Science electives

* Transferring students are encouraged to take PHED 212 or PHED 214.


## Transfer Opportunities

Lake Michigan College has worked with the following university to develop a program guide. This guide ensures that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

## Ferris State University

If you are interested in attending a school not listed here, please work with an academic advisor to build a program that will meet the requirements of your chosen school.

## About the Area of Study

Lake Michigan College offers most of the courses required for admission to optometry school. The Pre-Optometry advisor has details about optometry schools. There is a 61 -credit degree requirement needed for graduation.

Associate in Applied Science Degree
Program Code 212
Advisosr: Anthony Pantaleo, (269) 927-8100 ext. 5230, apantaleo@medic1 ambulance.org
Nicole Hubbard, (269) 925-2144, nhubbard@medic lambulance.org

## Program Prerequisites

This program has special admission procedures based on a program specific GPA ranking and limited enrollment. Please see the specific admission requirements for Health Science students on page 14. Contact the Admissions Office for complete details. An advisor will help you determine prerequisites that are required and designed to prepare you for training in the program.

## Prerequisite Courses Courses Vary <br> Additional courses may be needed based upon assessment results.

Biology 108, or Human Anatomy \& Physiology 4
Health 166, CPR/AED (or equivalent).............................................................. 1
EMT 162, Basic EMT ..................................................................................... 8
Degree Requirements Credit Hours
College Requirements
English 101, English Composition................................................................... 3
English 102, English Composition, or
English 103, Report Writing3
Political Science 101, National Government, orPolitical Science 102, State Governments, orHistory 201, American History to 1865, orHistory 202, American History 1865 to Present3

* Physical Education 200, Healthful Living, orPhysical Education 212, Health \& Fitness, orPhysical Education 214, Personal Health.or 3
Psychology 201, Introduction to Psychology ..... 3
Communication 101, Introduction to Public Speaking ..... 3
Major Requirements
Paramedic 101, Advanced EMT 1 ..... 8
Paramedic 102, Advanced EMT Lab 1 ..... 2
Paramedic 103, Advanced EMT Clinical 1 ..... 1
Paramedic 104, Advanced EMT Human Body \& Pathophysiology. ..... 2
Paramedic 201, Advanced EMT II ..... 8
Paramedic 202, Advanced EMT Lab II ..... 2
Paramedic 203, Advanced EMT Clinical II. ..... 2
Paramedic 204, Advanced EMT ACLS ..... 1
Paramedic 221, Advanced EMT III ..... 8
Paramedic 222, Advanced EMT Lab III ..... 2
Paramedic 223, Advanced EMT Clinical III ..... 3
Paramedic 224, PEPP Provider Course ..... 1
Paramedic 225, ITLS Provider Course ..... 1
Paramedic 230, Internship ..... 5


## About the Area of Study

The Radiologic Technology program trains you to become a radiologic technologist. This 21 month program includes two spring semester and one summer semester of courses. You will obtain clinical experience at local healthcare facilities in addition to formal classroom instruction provided on campus. Radiologic technologists are employed in hospitals, clinics, commercial x-ray laboratories, and physician offices where they use radiation to produce images of the bones and organs of the human body. In addition to preparing patients and operating equipment, radiologic technologists also keep patient records and may prepare work schedules, evaluate equipment purchases, or manage a radiology department

## Program Approval

This program is approved by the Joint Review Committee on Education in Radiologic Technology, 20 N. Wacker Dr., Suite 2850, Chicago, IL 60606-3182; Phone 312-7045300.

## Associate's Degree

Upon successful completion of the Radiologic Technology program, you may apply for an Associate in Applied Science degree.

## Certification Examination

Graduates are eligible to apply for the National Registry of EMT's examination to become licensed in the State of Michigan. Any applicant who has been convicted of a felony and some misdemeanors must contact NREMT to determine eligibility for examination

## Sample Course Sequence

An advisor will help you make necessary changes to this recommended sequence.
Associate's Degree Program

| Semester 1 | Semester 2 | Semester 3 |
| :--- | :--- | :--- |
| PARA 101 | PARA 201 | PARA 221 |
| PARA 102 | PARA 202 | PARA 222 |
| PARA 103 | PARA 203 | PARA 223 |
| PARA 104 |  |  |
|  |  |  |
| PARA 204 |  |  |
| Semester 4 | Semester 5 | Semester 6 |
| PARA 223 | ENG 101 | ENG 102/103 |
| PARA 224 | POSC 101/102 | COMM 101 |
| PARA 230 | or |  |
|  | HST 201-202 | PSY 201 |
|  | PHED 200 |  |
|  |  |  |

Associate in Science Degree - TRANSFER PROGRAM
Program Code 087
Advisor: Dr. Bal Barot, (269) 927-8100 ext. 5072, barot@lakemichigancollege.edu

## Sample Transfer Program

> The following is a sample college transfer program. It is essential that you work with an academic advisor to develop an individualized program that meets the specific requirements of the college you plan to attend.

It is important to begin the science and math sequence as soon as possible to efficiently complete the coursework. Be sure to determine readiness for the math and science courses as many students need to begin with lower level math and science coursework to successfully complete the required courses.

## Courses

English 101, English Composition Credit Hours

English 102, English Composition. .3

* Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health 1 or 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present........................................ 3
Mathematics 151, Calculus I ........................................................................... 5
Biology 111, Principles of Biology I................................................................. 4
Biology 112, Principles of Biology II.................................................................. 4
Chemistry 111, General Chemistry I............................................................... 4
Chemistry 112, General Chemistry II .............................................................. 4
Chemistry 203, Organic Chemistry I............................................................... 4
Chemistry 204, Organic Chemistry II.............................................................. 4
Physics 101, General Physics I ...................................................................... 5
Physics 102, General Physics II.......................................................................... 5
Humanities electives
Social Science electives
* Transferring students are encouraged to take PHED 212 or PHED 214.


## Transfer Opportunities

Lake Michigan College has worked with the following universities to develop program guides. These guides ensure that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

## Ferris State University <br> University of Michigan

If you are interested in attending a school not listed here, please work with an academic advisor to build a program that will meet the requirements of your chosen school.

## About the Area of Study

You may begin the Pre-Pharmacy program at Lake Michigan College by completing a two-year sequence of courses and transferring credits to a four-year school. You should become familiar with the admission requirements for your chosen four-year college or university and adjust your program accordingly with the assistance of the PrePharmacy advisor. There is a 61-credit degree requirement needed for graduation.


Human Services

## Sample Transfer Program

Meeting the degree requirements for the Associate in Arts degree is the most typical curriculum if you are planning to transfer to a Philosophy program at a four-year college or university. It is essential that you consult with an academic advisor for the specific requirements of the college you plan to attend.

Courses Credit Hours
English 101, English Composition.
English 102, English Composition.
.....................................................................................................

* Physical Education 200, Healthful Living, or

Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health ................................................ 1 or 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present........................................ 3
Mathematics 122, Intermediate Algebra (or above) ........................................ 4
Humanities electives
Science electives
Social Science electives
Related requirements

* Transferring students are encouraged to take PHED 212 or PHED 214.


## Transfer Opportunities

If you are planning to transfer to a four-year college, you should become familiar with your chosen school's requirements. See your advisor for assistance in planning your individualized program of study.

## About the Area of Study

Philosophy is a discipline that deals with all learning exclusive of technical precepts and the practical arts. Courses include study in areas such as logic, ethics, religious thought, and issues with technology, business, and medicine.

If you are pursuing a bachelor's degree in Philosophy, you may complete your first two years of coursework at Lake Michigan College. All Philosophy courses are transferable to other institutions in Michigan and elsewhere.

Well-prepared Philosophy majors have done well consistently in the Graduate Record Examination (GRE) and Law School Aptitude Test (LSAT).

You may complete the requirements for an Associate in Arts degree. Competency in a foreign language is not a degree requirement. However, Philosophy majors are strongly urged to complete at least two semesters of French, German, or Spanish. As a Philosophy major, you should seek a broad-based education through careful selection of courses. Consult the faculty advisor for specific guidance.

Advisors: Jill Claeys, (269) 927-8100 ext. 5070, claeys@lakemichigancollege.edu
Daniel Meyer, (269) 927-8100 ext. 5178, meyer@lakemichigancollege.edu


Human Services
Sample Transfer Program
The following is a sample college transfer program. It is essential that you work withan academic advisor to develop an individualized program that meets thespecific requirements of the college you plan to attend.
It is important to begin the science and math sequence as soon as possible to efficiently complete the coursework. Be sure to determine readiness for the math and science courses as many students need to begin with lower level math and science coursework to successfully complete the required courses.

## Courses

English 101, English Composition Credit Hours3

English 102, English Composition ..... 3* Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health ..... 3
Political Science 101, National Government, orPolitical Science 102, State Governments, orHistory 201, American History to 1865, orHistory 202, American History 1865 to Presen3
Biology 205, Human Anatomy ..... 4
Biology 206, Principles of Human Physiology ..... 4
Physical Science 101, Chemistry and Physics ..... 4
Communication 101, Introduction to Public Speaking ..... 3
Mathematics 122, Intermediate Algebra (or above) ..... 4
Physical Education 201, Foundations of Physical Education ..... 3
Psychology 201, Introduction to Psychology ..... 3
Psychology 203, Human Development ..... 3
Humanities electivesSocial Science electivesPhysical Education electives

* Transferring students are encouraged to take PHED 212 or PHED 214.


## Transfer Opportunities

Lake Michigan College has worked with the following universities to develop program guides. These guides ensure that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

## Central Michigan University <br> Western Michigan University <br> Grand Valley State University

If you are interested in attending a school not listed here, please work with an academic advisor to build a program that will meet the requirements of your chosen school.

## About the Area of Study

The Physical Education and Wellness program offers instruction and opportunities to participate in fitness-related activities, recreational and lifetime activities, and wellness promotion opportunities.

The professional program offers instruction in physical education skills, programs, philosophy, and administration. It is open to students planning to complete a major or minor in physical education, recreation, or coaching for their bachelor's degree program. Consult a faculty advisor for specific guidance. There is a 61-credit degree requirement needed for graduation.

## Sample Transfer Program

The following is a sample college transfer program. It is essential that you work with an academic advisor to develop an individualized program that meets the specific requirements of the college you plan to attend.

## Courses

## Credit Hours

English 101, English Composition................................................................ 3
English 102, English Composition.3

* Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health $\qquad$ 1 or 3
Political Science 101, National Government, or
Political Science 102, State Governments, or History 201, American History to 1865, or History 202, American History 1865 to Present3
Chemistry 111, General Chemistry 1 ..... 4
Chemistry 112, General Chemistry II ..... 4
Mathematics 151, Calculus I ..... 5
Physical Science 104, Physical Geology ..... 4
Physics 101, General Physics I ..... 5
Physics 102, General Physics II ..... 5
Humanities electives
Social Science electives
* Transferring students are encouraged to take PHED 212 or PHED 214.


## Transfer Opportunities

If you are planning to transfer to a four-year college, you should become familiar with your chosen school's requirements. See your advisor for assistance in planning your individualized program of study.

## About the Area of Study

Physical Science offers an introduction to the physical sciences (chemistry, geology, and physics); provides coursework for you to complete your general education requirements in Science; provides intial preparation work in a science field. There is a 61-credit degree requirement needed for graduation.

## Sample Transfer Program


#### Abstract

The following is a sample college transfer program. It is essential that you work with an academic advisor to develop an individualized program that meets the specific requirements of the college you plan to attend.


It is important to begin the science and math sequence as soon as possible to efficiently complete the coursework. Be sure to determine readiness for the math and science courses as many students need to begin with lower level math and science coursework to successfully complete the required courses.

## Course

Biology 205, Human Anatomy
Biology 206, Human Physiology Credit Hour

Chemistry 105, Fundamentals of Inorganic Chemistry.................................... 4
Chemistry 106, Fundamentals of Organic and Biologic Chemistry, or
Chemistry 111, General Chemistry 14
Physics 101, General Physics ..... 5
Physics 102, General Physics II. ..... 5
Mathematics 135, Algebra and Trigonometry ..... 4
Mathematics 216, Intro to Statistics ..... 3
English 101, English Composition. ..... 3
English 102, English Composition. ..... 3

* Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health ..... 3
Political Science 101, National Government, or
History 201, American History to 1865 ..... 3
Psychology 201, Introduction to Psychology ..... 3
Psychology 203, Human Development ..... 3
* Transferring students are encouraged to take PHED 212 or PHED 214.


## Transfer Opportunities

Lake Michigan College has worked with the following universities to develop program guides. These guides ensure that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

Andrews University

## Grand Valley State University

University of Michigan
If you are interested in attending a school not listed here, please work with an academic advisor to build a program that will meet the requirements of your chosen school.

## About the Area of Study

The course requirements for admission into a physical therapy master's program may be completed at Lake Michigan College. Since the minimum requirements vary among physical therapy schools, you should become familiar with them for the physical therapy school in which you are interested. The Physical Therapy advisor will assist you in planning your specific program. There is a 61 -credit requirement needed for graduation.

# Physician's Assistant (Pre) <br> Associate in Science Degree - TRANSFER PROGRAM Program Code 076 

Advisor: Dr. Susan Lentz, (269) 927-8100 ext. 5076, lentz@lakemichigancollege.edu

## Sample Transfer Program

# The following is a sample college transfer program. It is essential that you work with an academic advisor to develop and individualized program that meets the specific requirements of the college you plan to attend. 

It is important to begin the science and math sequence as soon as possible to efficiently complete the coursework. Be sure to determine readiness for the math and science courses as many students need to begin with lower level math and science coursework to successfully complete the required courses.
English 101, English Composition ..... 3
English 102, English Composition ..... 3

* Physical Education 200, Healthful Living, orPhysical Education 212, Health and Fitness, orPhysical Education 214, Personal Health1 or 3
Political Science 101, National Governments, or Political Science 102, State Government, or History 201, American History to 1865, or History 202, American History 1865 to Present ..... 3
Biology 111, Principles of Biology I. ..... 4
Biology 112, Principles of Biology II. ..... 4
Biology 205, Human Anatomy ..... 4
Biology 206, Human Physiology ..... 4
Biology 210, Microbiology ..... 4
Chemistry 203, Organic Chemistry I. ..... 4
Chemistry 204, Organic Chemistry II ..... 4
Physics 101, General Physics ..... 5
Physics 102, General Physics II. ..... 5
Psychology 203, Human Development ..... 3
Mathematics 216, Intro to Statistics. ..... 3
Psychology 201, Intro to Psychology ..... 3
Group III electives. ..... 9

[^8]
## About the Area of Study

Students preparing for a career as a Physician's Assistant must earn a bachelor's degree from an accredited institution with a minimum GPA (minimum GPA varies among individual schools.) Lake Michigan College offers many courses that may serve as the first two years of the undergraduate course requirements and/or pre-requisites for upperdivision (junior/senior) courses in fulfillment of the Physician's Assistant program.

While specific institutional requirements may vary, they typically require undergraduate work in anatomy, upper-division physiology, microbiology, upper-division biochemistry, organic chemistry, developmental psychology, statistics and English composition. Some programs will require health care experience ranging from 500-1000 hours. Since this is a graduate level program, scores from the Graduate Record Exam (GRE) are required for admission. It is important for students to check with the individual Physician's Assistant programs to determine their institution's admission requirements and work with an LMC advisor to build the appropriate schedule of classes to meet those requirements.

Associate in Science Degree - TRANSFER PROGRAM
Program Code 065
Advisor: Mike Durren, (269) 927-8100 ext. 5012, durren@lakemichigancollege.edu

## Sample Transfer Program

The following sample college transfer program provides you with an example of a transfer program. It is essential that you consult with an academic advisor for the specific requirements of the college you plan to attend.

It is important to begin the science and math sequence as soon as possible to efficiently complete the coursework. Be sure to determine readiness for the math and science courses as many students need to begin with lower level math and science coursework to successfully complete the required courses.

## Courses

English 101, English Composition Credit Hours

English 102, English Composition .3
gish 102, English Composiin................................................................... 3

* Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health ............................................... 1 or 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present........................................ 3
Chemistry 111, General Chemistry I............................................................... 4
Chemistry 112, General Chemistry II ............................................................... 4
Mathematics 151, Calculus I ............................................................................ 5
Mathematics 201, Calculus II ......................................................................... 5
Mathematics 202, Calculus III .......................................................................... 5
Mathematics 252, Differential Equations ........................................................ 3
Physics 201, Engineering Physics I.................................................................. 5
Physics 202, Engineering Physics II................................................................. 5
Humanities electives
Social Science electives
* Transferring students are encouraged to take PHED 212 or PHED 214.


## Transfer Opportunities

Lake Michigan College has worked with the following universities to develop program guides. These guides ensure that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

## Michigan Technological University Western Michigan University

If you are interested in attending a school not listed here, please work with an academic advisor to build a program that will meet the requirements of your chosen school.

## About the Area of Study

Physics is a science that deals with matter, energy and their interactions at the most basic levels. Consult the faculty advisor for specific guidance. There is a 61-credit degree requirements needed for graduation.


Human Services

## Sample Transfer Program

Meeting the degree requirements for the Associate in Arts degree is the most typical curriculum if you are planning to transfer to a Political Science program at a four-year college or university. It is essential that you consult with an academic advisor for the specific requirements of the college you plan to attend.

| Courses | Credit Hours |
| :---: | :---: |
| English 101, English Composition.......................................................... 3 |  |
| English 102, English Composition. | 3 |
| * Physical Education 200, Healthful Living, or |  |
| Physical Education 212, Health and Fitness, or |  |
| Physical Education 214, Personal Health $\qquad$ . or 3 |  |
| Political Science 101, National Government, or |  |
| Political Science 102, State Governments, or |  |
| History 201, American History to 1865, or |  |
| History 202, American History 1865 to Present. | 3 |
| Mathematics 101, Intermediate Algebra (or above) .................................... 4 |  |
| Humanities electives |  |
| Science electives |  |
| Social Science electives |  |
| Related requirements |  |
| The following Political Science classes are offered at Lake Michigan College: |  |
| Political Science 101, National Government. |  |
| Political Science 102, State Government | 3 |
| Political Science 202, Comparative Government | 3 |
| Political Science 203, International Relations . | 3 |
| Political Science 204, Political Parties. | 3 |
| Political Science 250, Introduction to Social Science Research. |  |
| Political Science 260, Introduction to Public Policy. | 3 |

* Transferring students are encouraged to take PHED 212 or PHED 214.


## Transfer Opportunities

Lake Michigan College has worked with the following university to develop a program guide. This guide ensures that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

## University of Michigan

If you are interested in attending a school not listed here, please work with an academic advisor to build a program that will meet the requirements of your chosen school.

## About the Area of Study

Political Science is the study of local, state, national, and international governments and their impact upon human society. If your goal is to pursue a bachelor's degree in Political Science, you may complete your first two years of coursework at Lake Michigan College. Political Science courses are transferable to other institutions in Michigan and elsewhere. Political Science is recommended if you are interested in government service, elective politics or a law degree. Consult the faculty advisor for specific guidance. There is a 61 -credit degree requirement needed for graduation.


Human Services

## Sample Transfer Program


#### Abstract

Meeting the degree requirements for the Associate in Arts degree is the most typical curriculum if you are planning to transfer to a Psychology program at a four-year college or university. It is essential that you consult with an academic advisor for the specific requirements of the college you plan to attend.


Courses Credit Hours
English 101, English Composition................................................................... 3
English 102, English Composition................................................................... 3

* Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health ............................................... 1 or 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present........................................ 3
Mathematics 101, Intermediate Algebra (or above) ........................................ 4
Humanities electives
Science electives
Social Science electives
Related requirements
The following Psychology classes are offered at Lake Michigan College:
Psychology 201, Introduction to Psychology .................................................... 3
Psychology 203, Human Development ............................................................. 3
Psychology 204, Child Development and Personality........................................ 3
Psychology 205, Interpersonal Relations........................................................... 3
Psychology 206, Social Psychology ................................................................ 3
Psychology 230, Psychology of Stereotyping and Prejudice .............................. 3
Psychology 231, Abnormal Psychology............................................................ 3
Psychology 250, Introduction to Social Science Research................................... 3
* Transferring students are encouraged to take PHED 212 or PHED 214.


## Transfer Opportunities

Lake Michigan College has worked with the following universities to develop program guides. These guides ensure that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

## Central Michigan University Grand Valley State University Western Michigan University University of Michigan

If you are interested in attending a school not listed here, please work with an academic advisor to build a program that will meet the requirements of your chosen school.

## About the Area of Study

Psychology is the study of human consciousness, behavior, and experience to develop an understanding of the human condition. You will learn about yourself and others, and see more deeply into the human personality. If you plan to major in Psychology at a four-year university, you may complete the first two years of your program at Lake Michigan College.

You have a unique opportunity to conduct research in Psychology 250. Research projects that qualify are published in The Lake Michigan College Journal of Psychology. Students may be eligible for membership in Psi Beta, the national honor society for Psychology students at community and junior colleges. Consult a faculty advisor for specific guidance. There is a 61-credit degree requirement needed for graduation.

Associate in Applied Science Degree Program Code 221

Advisor: Kerry Mohney, (269) 927-8100 ext. 5093, mohney@lakemichigancollege.edu Student Services Academic Advising (269) 927-8128 Contact Student Services Academic Advising at ext. 8128 or the Health Science office at ext. 5090 for complete details.

## Program Prerequisites

This program has special admission procedures based on a program specific GPA ranking and limited enrollment. Please see the specific admission requirements for Health Science students on page 14. Contact the Admissions Office for complete details. An advisor will help you determine prerequisites that are required and designed to prepare you for training in the program.

## Prerequisite Courses

Additional courses may be needed based upon assessment results.
Biology 101, Biological Science, or Biology 108 4
Prerequisite to BIO 205; see course description
Biology 205, Human Anatomy 4
Physical Science 101, Chemistry and Physics, or Chemistry 105, Fundamentals of Inorganic Chemistry4
Health 166, CPR/AED (or equivalent) ..... 1
Health 165, Standard First Aid (or equivalent) ..... 1.5
Reading 110, Medical Terminology ..... 1
Psychology 201, Introduction to Psychology ..... 3
Degree Requirements ..... Credit Hours
College Requirements
English 101, English Composition. ..... 3
English 102, English Composition. ..... 3
Political Science 101, National Government, or Political Science 102, State Governments, or History 201, American History to 1865, or History 202, American History 1865 to Present ..... 3
Physical Education 200, Healthful Living ..... 1
Major Requirements
Radiologic Technology 130, Introduction to Radiography ..... 3
Radiologic Technology 131, Radiographic Positioning I. ..... 3
Radiologic Technology 133, Clinical Experience A. ..... 2
Radiologic Technology 140, Radiographic Positioning II. ..... 3
Radiologic Technology 141, Contrast Studies ..... 3
Radiologic Technology 142, Radiographic Physics ..... 4
Radiologic Technology 143, Clinical Experience B ..... 2
Radiologic Technology 145, Radiographic Protect/Biology. .....  2
Radiologic Technology 146, Clinical Experience C ..... 1
Radiologic Technology 230, Common Equipment and Procedures ..... 4
Radiologic Technology 231, Radiographic Positioning III ..... 3
Radiologic Technology 232, Clinical Experience D. ..... 5
Radiologic Technology 240, Radiographic Quality. ..... 4
Radiologic Technology 241, Special Procedures/Emerging Modalities. ..... 3
Radiologic Technology 242, Clinical Experience E ..... 3
Radiologic Technology 245, Clinical Experience F. ..... 3
Radiologic Technology Program Handbook

In addition to the rules stated in this catalog, Radiologic Technology students are required to abide by the rules stated in the Radiologic Technology Program Handbook, which may be reviewed in the College library.

## About the Area of Study

The Radiologic Technology program trains you to become a radiologic technologist. This 21 -month program includes two spring semester and one summer semester of courses. You will obtain clinical experience at local healthcare facilities in addition to formal classroom instruction provided on campus.

Radiologic technologists are employed in hospitals, clinics, commercial x-ray laboratories, and physician offices where they use radiation to produce images of the bones and organs of the human body. In addition to preparing patients and operating equipment, radiologic technologists also keep patient records and may prepare work schedules, evaluate equipment purchases, or manage a radiology department.

## Program Accreditation

This program is accredited by the Joint Review Committee on Education in Radiologic Technology, 20 N. Wacker Dr., Suite 2850, Chicago, IL 60606-3182; Phone 312-704-5300.

## Associate's Degree

Upon successful completion of the Radiologic Technology program, you may apply for an Associate in Applied Science degree.

## Certification Examination

Graduates are eligible to apply to sit for the American Registry of Radiologic Technology (ARRT) national certification examination. Any applicant who has been convicted of a felony and some misdemeanors must pre-apply to ARRT for determination of eligibility to sit for the national certification examination.

## Sample Course Sequence

An advisor will help you make necessary changes to this recommended sequence.
Associate's Degree Program

| Semester 1 | Semester 2 | Semester 3 |
| :--- | :--- | :--- |
| ENGL 101 | ENGL 102 | RADT 145 |
| RADT 130 | RADT 140 | RADT 146 |
| RAT 131 | RADT 141 |  |
| RADT 133 | RADT 142 | Semester 4 |
|  | RADT 143 | RADT 232 |

Semester 5 Semester 6
PHED 200 POSC 101 or POSC 102
RADT 230 HIST 201 or HIST 202
RADT 231 RADT 240
RADT 242 RADT 241 RADT 245

## Cardio Respiratory Care (Respiratory Therapy) <br> $1+2$ with Kalamazoo Valley Community College Program Code 205 <br> Associate in Applied Science Degree from KVCC <br> Advisor: Delores Jackson, (269) 927-8100, ext. 5092, jacksond@lakemichigancollege.edu <br> 

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.

## Degree Requirements Credit Hours

First Year Courses at Lake Michigan CollegeEnglish 101, English Composition3
English 102, English Composition ..... 3
Biology 205, Human Anatomy ..... 4
Biology 206, Principles of Human Physiology ..... 4
Biology 210, Microbiology, or ..... 4
KVCC HCR 120, Applied Microbiology ..... 2
Chemistry 101, Introductory Chemistry I, or
Chemistry 105, Fundamentals of Inorganic Chemistry ..... 4
Political Science 101, National Government, or Political Science 102, State Governments ..... 3
Psychology 201, Introduction to Psychology, or
Sociology 101, Principles of Sociology ..... 3
Physical Education, Elective ..... 2
Reading 110, Medical Terminology ..... 1

## About the Program

Lake Michigan College offers the first year of a three-year Associate in Applied Science degree in CardioRespiratory Care in cooperation with Kalamazoo Valley Community College.
The program is accredited by the Commission on Accreditation of Allied Health Education programs. Respiratory therapists are in demand to provide cardiorespiratory care in health care facilities. The major emphasis is placed upon cardiopulmonary critical care technology and prepares you for the national practitioner examinations which lead to certification and registry. Extensive adult and neonatal critical care clinical experience is required as part of this program.
Respiratory therapists evaluate, treat, and care for patients with breathing disorders. As a respiratory therapist, you will work with all types of patients from premature newborns whose lungs are not fully developed to older people whose lungs are diseased.
Hospitals are the primary employer of respiratory thearapists however, there is a growing number of positions available in home health agencies, respiratory therapy clinics, and nursing homes.

## Associate's Degree

Upon completion of the KVCC program, graduates receive an Associate in Applied Science degree through KVCC.
You will enroll simultaneously at Lake Michigan College and KVCC, take first-year courses at Lake Michigan College, then transfer to KVCC for two years of Respiratory Care courses.

## Sample Course Sequence

See the Lake Michigan College Health Sciences Department Chair for schedule planning and application information. Additional details are available from the Admissions Office.

## Associate's Degree Program

| Semester 1 | Semester 2 |
| :--- | :--- |
| ENGL 101 | ENGL 102 |
| BIOL 205 | BIOL 206 |
| SOC 101 or | POSC 101 or |
| PSYC 201 | POSC 102 |
| PHED Elective | PHED Elective |

PHED Elective PHED Elective
READ 110
Years 2 \& 3 - Taken at KVCC

Certificate of Achievement - Skilled Trades Technology Program Code 382
Associate in Skilled Trades Technology Program Code 381
Advisors: Ken Flowers, (269) 927-8100 ext. 3032, flowers@lakemichigancollege.edu

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.

## Degree Requirements

 Credit Hours
## College Requirements

English 101, English Composition................................................................... 3
English 103, Report Writing, or
English 102, English Composition $\qquad$

* Physical Education 200, Healthful Living, or

Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health $\qquad$ 1 or 3
Political Science 101, National Government, or
Political Science 102, State Government, or
History 201, American History to 1865, or History 202, American History 1865 to Present ..... 3
Support Courses
Mathematics 100, Applied Mathematics ..... 4
Mathematics 110, Technical Mathematics I, or Trade Related Instruction 107, Applied Geometry/Trigonometry ..... 4
Health 165, Standard First Aid/Personal Safety ..... 1.5
Health 166, CPR/AED ..... 1
Physics 110, Technical Physics ..... 4

* Transferring students are encouraged to take PHED 212 or PHED 214.


## Major courses and electives <br> See program Advisor for course selection.

These will vary according to your focus and must be chosen with an advisor's assistance. Courses that represent the core of United States Department of Labor Registered apprenticeship may be considered elements of your major for purposes of the associate's degree.

## About the Area of Study

In cooperation with local employers, Lake Michigan College provides training for men and women enrolled in formal Apprenticeship Agreements approved by the U.S. Department of Labor, Office of Apprenticeship and Training. Such training programs include academic instruction as well as on-the-job training and usually take a minimum of two years to four years to complete.

## Certificate and Degree Options

A student who has completed the academic requirements of a U.S. Department of Labor Registered Apprenticeship and completed a minimum of 30 credit hours may also elect to participate in the graduation ceremony and receive a Lake Michigan College Skilled Trades Technology Certificate of Achievement in recognition of their accomplishment.

The Associate in Skilled Trades Technology degree is designed for those apprentices that have received a Completion Certificate from the U.S. Department of Labor or posses a journeyman card. The degree incorporates the courses taken during the student's apprenticeship training, additional advanced level courses and general education courses. Upon completion of the degree program with a minimum of 61 credit hours, a student can apply for graduation and be awarded an Associate in Skilled Trades Technology.

## Sample Course Sequence

Sequencing of courses is important to your success. The program advisor can assist with sequencing your courses.

## Sociology/Social Work (Pre) Associate in Arts Degree - TRANSFER PROGRAM Program Code 011

Advisor: Dr. Michelle Stone, (269) 927-8100, ext. 5014 stone@lakemichigancollege.edu


Human Services


#### Abstract

Sample Transfer Program Meeting the degree requirements for the Associate in Arts degree is the most typical curriculum if you are planning to transfer to a sociology/social work program at a four-year college or university. It is essential that you consult with an academic advisor for the specific requirements of the college you pltan to attend.


Courses Credit Hours
English 101, English Composition................................................................... 3
English 102, English Composition................................................................... 3

* Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health ................................................ 1 or 3
Political Science 101, National Government, or
Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present........................................ 3
Mathematics 122, Intermediate Algebra (or above) ........................................ 4
Humanities electives
Science electives
Social Science electives
Related requirements
The following Sociology classes are offered at Lake Michigan College:
Sociology 101, Principles of Sociology............................................................. 3
Sociology 201, Modern Social Problems.......................................................... 3
Sociology 202, Marriage and the Family ........................................................ 3
Sociology 204, The Field of Social Work..................................................... 3
Sociology 205, Race and Ethnic Relations ........................................................ 3
Sociology 210, Sociology of Aging ................................................................. 3
Sociology 250, Introduction to Social Science Research.................................... 3
* Transferring students are encouraged to take PHED 212 or PHED 214.


## Transfer Opportunities

Lake Michigan College has worked with the following universities to develop program guides. These guides ensure that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

## Ferris State University Grand Valley State University Michigan State University Western Michigan University University of Michigan

If you are interested in attending a school not listed here, please work with an academic advisor to build a program that will meet the requirements of your chosen school.

## About the Area of Study

The discipline of Sociology is concerned with the social and cultural life of humans. Sociologists study the organization, functions, and problems of human societies and groups. The dynamics of human relationships are of primary interest along with the analysis of culture, social systems, socialization, social classes, poverty, minorities and majorities, population, social institutions, and social change

Occupations in sociology/social work usually require a bachelor's or master's degree. The Sociology discipline at Lake Michigan College provides you with the first two years of a bachelor's program. You should work with your advisor to check with four-year colleges and universities regarding specific requirements. There is a 61 -credit degree requirement needed for graduation. Communication

## Sample Transfer Program

Meeting the degree requirements for the Associate in Arts degree is the most typical curriculum if you are planning to transfer to a Drama program at a four-year college or university. Participation in college theatre productions and the associated classes is also expected. It is essential that you consult with an academic advisor for the specific requirements of the college you plan to attend.

## Courses

Credit Hours
English 101, English Composition................................................................... 3
English 102, English Composition.................................................................. 3

* Physical Education 200, Healthful Living, or

Physical Education 212, Health and Fitness, or
Physical Education 214, Personal Health ............................................... 1 or 3
Political Science 101, National Government, or Political Science 102, State Governments, or
History 201, American History to 1865, or
History 202, American History 1865 to Present........................................ 3
Mathematics 122, Intermediate Algebra (or above)
.4
Humanities electives
Science electives
Social Science electives
Related requirements

* Transferring students are encouraged to take PHED 212 or PHED 214.


## Transfer Opportunities

Lake Michigan College has worked with the following universities to develop program guides. These guides ensure that you can work toward a bachelor's degree without losing any credit earned at Lake Michigan College. For more information, see the program guides in the advising office.

## Grand Valley State University <br> Michigan State University <br> Western Michigan University

If you are interested in attending a school not listed here, please work with an academic advisor to build a program that will meet the requirements of your chosen school.

## About the Area of Study

Theatre courses help you develop an appreciation of the discipline as well as to expand your personal and professional enrichment through study in acting and stagecraft. The curriculum is comprised of courses dealing with dramatic theory and appreciation, design and technical theatre, and performance. Courses are open to all students.

Credits apply toward the Associate in Arts degree. If you are planning to transfer to a four-year school should obtain degree requirements for the freshman and sophomore years at your selected school and consult with the Theatre advisor to plan your individualized program. There is a 61 -credit degree requirement needed for graduation.

## Sample Transfer Program


#### Abstract

The following is a sample college transfer program. It is essential that you work with an academic advisor to develop an individualized program that meets the specific requirements of the college you plan to attend.

It is important to begin the science and math sequence as soon as possible to efficiently complete the coursework. Be sure to determine readiness for the math and science courses as many students need to begin with lower level math and science coursework to successfully complete the required courses.


## Courses

English 101, English Composition Credit Hours

English 102, English Composition3* Physical Education 200, Healthful Living, orPhysical Education 212, Health and Fitness, orPhysical Education 214, Personal Health1 or 3
Political Science 101, National Government, or
Political Science 102, State Governments, orHistory 201, American History to 1865, or
History 202, American History 1865 to Present ..... 3
Mathematics 151, Calculus I ..... 5
Biology 111 , Principles of Biology I. ..... 4
Biology 112, Principles of Biology II ..... 4
Chemistry 111, General Chemistry I ..... 4
Chemistry 112, General Chemistry II ..... 4
Physics 101, General Physics I ..... 5
Physics 102, General Physics II. ..... 5
Humanities electives
Social Science electives* Transferring students are encouraged to take PHED 212 or PHED 214.

## Transfer Opportunities

If you are planning to transfer to a four-year college, you should become familiar with your chosen school's requirements. See your advisor for assistance in planning your individualized program of study.

## About the Area of Study

You may transfer to Michigan State University to complete your Pre-Veterinary requirements after one or two years at Lake Michigan College. The typcial pattern is to complete your general education and basic science requirements and then transfer at the junior level.

The Medical College Admission Test (MCAT) generally is completed at the beginning of the junior year. Application for transfer and preparation for the MCAT should begin during the sophomore year. Consult the faculty advisor for specific guidance. There is a 61-credit degree requirement needed for graduation.

## Program Prerequisites

Proficiency in reading, English and mathematics on the assessment or successfully complete recommended classes. See course descriptions for specific course prerequisites.

## Degree Requirements

 Credit HoursFirst Year Courses at Lake Michigan College
English 101, English Composition3
English 103, Report Writing ..... 3
Mathematics 110, Technical Mathematics ..... 4
Chemistry 111, General Chemistry I ..... 4
Chemistry 112, General Chemistry II ..... 4
Electronics 100, DC Electricity ..... 4
Physics 101, General Physics I, or Physics 110, Technical Physics ..... 5/4
Political Science 101, National Government, or
Political Science 102, State Governments ..... 3
Major requirements at Bay de Noc Community College
WT 110, Water and Wastewater Treatment Plants ..... 3
WT 120, Water and Wastewater Treatment Plants ..... 3
WT 230, Sanitary Microbiology ..... 4
WT 255, Mechanical Maintenance ..... 3
WT 240, Water Chemistry ..... 5
WT 250, Water Chemistry ..... 5
WT 270, Applied Hydraulics ..... 4
WT 260, Water Utility Management ..... 3
WT 220, Industrial Water/Water Treatment ..... 3
Co-op Education ..... 6

## About the Program

Lake Michigan College offers the first year of a two-year Associate in Applied Science Degree in Wastewater Purification Technology in cooperation with Bay de Noc Community College, Escanaba, MI. This program provides specialized training in water/wastewater treatment theory and application.

You will enroll simultaneously at Lake Michigan College and Bay de Noc Community College, take the first year of courses at Lake Michigan College, then transfer to Bay de Noc for the final year, completing the program with a two-month period of on-the-job training in the hometown area.

Upon graduation you will be eligible for positions in operations as equipment operators or in the laboratory or in management of potable or wastewater plants.

## Associate's Degree

Upon completion of the program, you will receive an Associate in Applied Science degree through Bay de Noc Community College. You will also be eligible to sit for the state exam for municipal water and wastewater operator certification through the Michigan Department of Environmental Quality.

## Sample Course Sequence

An advisor will help you make necessary changes to this recommended sequence.

## Associate's Degree Program

| Semester 1 | Semester 2 |
| :--- | :--- |
| MATH 110 | ENGL 103 |
| ENGL 101 | POSC 101 or |
| CHEM 111 | POSC 102 |
| ELEC 100 | CHEM 112 |
|  | PHYS 101 or |
|  | PHYS 110 |

Year 2 taken at Bay de Noc Community
College in Escanaba, MI.

Human Services

## Emergency Medical Services progiom Code 2ll

Advisor: TBD, (269)927-8100 ext. 5092

The Emergency Medical Services courses train personnel for positions in pre-hospital emergency care for sick and injured individuals. A certificate of completion is awarded for each course. Successful completion of a course will allow the student to sit for the appropriate licensing examination for emergency medical technician offered by the Michigan Department of Consumer and Industry Services and/or the National Registry of Emergency Medical Technicians, Inc.

Not all courses are offered every semester. Contact the Health Sciences Office or the Schedule of Classes for current offerings. Courses may be offered at the Napier Avenue Campus or at other sites.

## Course

Credit Hours
Emergency Med. Tech. 162, Basic Emergency Medical Technician. $\qquad$

## Health

Advisor: TBD, (269) 927-8100 ext. 5092
Health courses are offered to provide you with an opportunity to become certified in basic health related skills. Courses are approved by the American Red Cross.

## Courses

Credit Hours
Health 165, Standard First Aid and Personal Safety........................................1. 5
Health 166, CPR/AED..................................................................................... 1


## Course Descriptions

This section contains a description of all course offerings. In using this course list, students should note the following:

## How to Read Course Descriptions

# Abbreviation used to <br> identify subject 

Indicates additional course fee; see class schedule for details


## ART (ART)

NOTE: For a student to work in a specific medium, particular attention should be given to the three levels of study referred to in this list:
Watercolor: 105, 106, 254
Drawing: 122, 123, 260
Painting: 115, 116, 251
Ceramics: 120, 121, 252

## 101 ART APPRECIATION I, FALL

3(3-0)
Introduction to appreciation of visual arts. Study of artistic styles that explains ideas about visual art and architecture through discussion and field trips. Open to all students.

## 102 ART APPRECIATION II, WINTER

Explores visual arts through studio projects, slides, lectures and discussion. Work in basic elements of design and form organization through various two-dimensional and three-dimensional media. Open to all students.

## 105 WATERCOLOR I, WINTER

2(0-4)
Survey of painting techniques and issues of compositional problem solving through emphasis on elements of design--line, value, texture, color, form and space. Open to all students.

## 106 WATERCOLOR II, WINTER

Advanced study in watercolor through investigation of elements of design for personal expression. Open to all students.
Prerequisite: ART 105

## 107 BASIC PHOTOGRAPHY, FALL, WINTER

Focus on direct experience in materials, techniques, processes and ideas fundamental to black-and-white photography. Working knowledge of camera, light metering, flash, black-and-white films, film development, darkroom chemistry, photographic papers, printing techniques and mounting prints. Discussion of historical background and current developments. Open to all students.

108 INTERMEDIATE PHOTOGRAPHY, FALL, WINTER 3(2-4)
Explores materials, techniques, processes and ideas of advanced and experimental black-and-white photography. Working knowledge of Kodalith high-contrast orthochromatic film used for production of silver experimental processes, infrared film, photosilkscreen, advanced studio lighting techniques and composition. Open to all students.
Prerequisite: ART 107

## 109 BASIC DESIGN (2-D), FALL

A thorough investigation of the elements of design (line, texture, value, color, etc.) and principles of form organization to establish the visual language of the two-dimensional arts. Open to all students. Required for Art majors.

## 110 BASIC DESIGN (3-D), WINTER

Focus on visual fundamentals of three-dimensional design and study of form as means of expression. Open to all students. Required for Art majors.

## 111 ART EDUCATION, WINTER

Explores wide range of visual experiences. Emphasis on understanding child growth and development against background of various painted, drawn and sculptured images. For students interested in teaching.
Prerequisites: $E, R$

## 115 PAINTING I, WINTER

3(0-6)
Fundamentals of form and their relationships in painting. Range of subject matter includes portrait and figure studies. Open to all students.

## 116 PAINTING II, WINTER

Further study in structural concerns of painting. Emphasis on discipline and integration of personal expression through principles of form, organization, movement, repetition, proportion, balance, etc. Open to all students.
Prerequisite: ART 115

## 120 CERAMICS I, FALL, WINTER

Focus on materials, tools, and special equipment used in working with clay. Investigation of firing procedures, preparation of clay and glazes, and fundamentals of throwing pottery on wheel. Open to all students.

## 121 CERAMICS II, FALL, WINTER

Advanced course in study of clay. Hand-building and/or wheelthrowing problems according to individual interests. Experiments in glazing. Open to all students.
Prerequisite: ART 120

## 122 DRAWING I, FALL, WINTER

Explores the fundamentals of drawing. Investigation of the elements of design and other ideas underlining a successful drawing. Includes drawing portraits. Open to all students. Required for Art majors.

## 123 DRAWING II, FALL, WINTER

Continued study in drawing. Emphasis on development of personal expression through use of line and value. Open to all students.
Required for Art majors.
Prerequisite: ART 122

## 200 HISTORY OF ART I, FALL (ODD YEARS) 3(3-0)

 Lecture course that discusses a historical survey of architecture, sculpture and painting from Prehistoric Period to Gothic Period. Includes study of Egyptian, Greek, Roman and Romanesque art. Open to all students.Prerequisites: $E, R$

## 201 HISTORY OF ART II, FALL (EVEN YEARS)

Lecture course that discusses a historical survey of architecture, sculpture and painting from Renaissance to Twentieth Century. Focus on important aspects of Baroque, Neo-classical and Romantic art culminating in Modern Movement. Open to all students.
Prerequisites: $E, R$

## 202 TWENTIETH-CENTURY ART, WINTER

Lecture course that addresses contemporary trends in painting and sculpting. Lectures supplemented with slides and videos engage students with major movements and developments in Europe and United States. Includes study of Impressionism and Post-Impressionism as foundations for understanding twentieth-century ideas. Open to all students.
Prerequisites: $E, R$

## 203 20th CENTURY ART HISTORY: 1900-1945

 WINTER, EVEN YEARS3(3-0)
Art from 1900 to 1945 will be discussed in terms of its origins, trends, and the contributions of culture and technology. Major developments to be covered include Fauvism, Cubism, Expressionism, Dadaism, Surrealism, and Abstract Expressionism. Photography and Architecture will be discussed, too. Open to all students.
Prerequisite: None.

## 204 20TH CENTURY ART HISTORY 1945-PRESENT, WINTER (ODD YEARS)

Major developments in Art from 1945 to Present, including Abstract Expressionist, Pop Art, Minimalism, Conceptual Art, Photo Realism, Neo-Expressionism, and the Post-Modern era are discussed alongside the associated disciplines of Photography, Architecture and Graphic Design. Open to all students.
Prerequisite: None

## 209 PRINTMAKING I (KRASL)

Basic printmaking techniques. Various media explored such as woodcut, intaglio and silk screen. Open to all students.

## 210 PRINTMAKING II (KRASL)

Advanced focus on continued work with various printing techniques. Open to all students.
Prerequisite: ART 209

## 211 WEAVING I, FALL, WINTER

2(0-4)
Handweaving using table and floor looms. Plain weave and tapestry explored in this introductory class. Selected topics include fiber characteristics and design principles. Open to all students.
Prerequisites: $R, M$

## 212 SCULPTURE I, FALL

3(0-6)
Basic sculpture forming techniques; investigation of form relationships through use of clay and other media. Emphasis on developing skills in manipulation of materials. Open to all students.

## 213 SCULPTURE II, FALL

3(0-6)
Advanced exploration of ideas and materials used in sculpture.
Choice of wood, metal, or plaster for study. Emphasis on developing skills in articulating form. Open to all students.
Prerequisite: ART 212

## 214 WEAVING II, FALL, WINTER

Intermediate course for further investigation of weaving technique.
Fiber projects include various areas of investigation. Areas of concentration determined by class. Open to all students. Prerequisites: $M, R, A R T 211$

## 251 STUDIO PROBLEMS: PAINTING, WINTER

Advanced study in acrylic and/or oil painting, emphasis on development of technical skills according to individual student interest.
Prerequisites: ART 115, ART 116
252 STUDIO PROBLEMS: CERAMICS, FALL, WINTER 3(0-6) Advanced study in ceramics with more individualized directions. Hand-building and wheel-thrown objects as well as experiments with glaze compounds.
Prerequisites: ART 120, ART 121

253 STUDIO PROBLEMS: SCULPTURE, FALL
3(0-6)
Advanced study in sculpture, with emphasis on improving individual directions in clay, plaster, metal, or wood.
Prerequisites: ART 212, ART 213

## 254 STUDIO PROBLEMS: WATERCOLOR, WINTER 2 (0-4)

Advanced study in watercolor to explore color and form according to individual interests.
Prerequisites: ART 105, ART 106
255 STUDIO PROBLEMS: PRINTMAKING (KRASL) 2(0-4)
Advanced study in printmaking techniques to investigate printing methods such as woodcut, silk screen, and intaglio.
Prerequisites: ART 209, ART 210
256 STUDIO PROBLEMS: WEAVING, FALL, WINTER 2(0-4)
Advanced study of fibers, to explore areas of personal interest in weaving techniques (including batik).
Prerequisites: $M, R$, ART 211, ART 214
260 STUDIO PROBLEMS: DRAWING, FALL, WINTER 3(0-6)
Advanced course in drawing. Exploration of different directions of expression through personal experimentation.
Prerequisites: ART 122, ART 123

## BIOLOGY (BIOL)

101 BIOLOGICAL SCIENCE, FALL, WINTER, SPRING, SUMMER

4(3-2)
Introduction to basic principles and concepts of biology as well as related laboratory experiences. Areas of emphasis include ecology, evolution, unity and diversity of life, molecular biology, genetics, cell biology, biotechnology and behavior. NOTE: Students with two (2) or more years of high school biology are recommended to take BIOL 111, BIOL 112, or BIOL 204.
Prerequisites: $E, R, M$
108 BASIC HUMAN ANATOMY \& PHYSIOLOGY FALL, WINTER, SPRING
A lecture and laboratory course covering the structure and function of cells, organs and systems within the human body. Online and classroom lectures are used to present core content. Hands-on laboratories, including student-led instruction, are designed to help students understand and apply selected principles of cell biology, anatomy and physiology. Case studies are designed to help make connections between knowledge of anatomy \& physiology and realworld situations. Testing outside scheduled class time required. Prerequisites: $E, M, R$

111 PRINCIPLES OF BIOLOGY I, FALL
Emphasizes molecular biology, cell chemistry, cell structure and function, physiology, growth and develpment and genetics. For Biology majors and minors, or students planning to transfer to pre-professional programs requiring Biology. Includes a three-hour laboratory experience per week. NOTE: Students with two years of high school biology, or one year of high school biology and one year of chemistry will serve as BIOL101 prerequisite. Prerequisites: $E, M, R$, BIOL 101

## 112 PRINCIPLES OF BIOLOGY II WINTER

4(3-3)
Emphasizes diversity of organisms, animal and plant structure, animal behavior, and ecology. For Biology majors and minors, or those students planning to transfer to pre-professional programs requiring Biology. Includes a three-hour laboratory experience per week. Students with two years of high school biology, or one year of high school biology and one year of chemistry will serve as BIOL 101 prerequisite.
Prerequisites: $E, M, R$, BIOL 101

## 170 LIFE SCIENCE FOR ELEMENTARY TEACHERS, FALL, <br> 3(2-3)

The first of a two course laboratory based biology sequence designed for prospective elementary school science teachers. this course is intended to acquaint children with the important concepts of biology and why is it important for students to learn biology and how to help them become independent and creative investigators of nature. This course will explore the practice and science rather than a body of revealed knowledge to be memorized. This course is specifically designed to transfer to Western Michigan University's Elementary Education program and may not transfer to other institutions.

## 204 ENVIRONMENTAL BIOLOGY, FALL

4(3-3)
Study of basic concepts and applications of ecology as it relates to humans. Emphasis on basic ecological concepts and how they relate to current environmental problems. Laboratory work includes field and laboratory studies and field trips to areas of ecological and environmental interest.
Prerequisites: $E, M, R$, BIOL 101 or two years high school biology, or one year high school biology and one year in physical science.

## 205 HUMAN ANATOMY, FALL, WINTER, SPRING, SUMMER 4(3-2)

A lecture and laboratory course in which the human body is studied at the histological and gross levels of structure. Online and classroom lectures in conjunction with hands-on laboratories are used to present core content. Case studies are designed to help students apply their knowledge of human anatomy to real-world situations. Testing outside scheduled class time is required. Two years of high school biology within the last 5 years may substitute for the biology prerequisite.
Prerequisites: E, R, BIOL 101or BIOL108

## 206 PRINCIPLES OF HUMAN PHYSIOLOGY

## FALL, WINTER, SUMMER

4(3-3)
A lecture and laboratory course covering the basic principles and concepts of human physiology. Online and classroom lectures are used to present core content. Computer simulations and hands-on laboratories are integrated with discussions and provide oppportunity to apply basic physiological principles. Case studies are designed to help students make connections between knowledge of physiology and real-world situations. Testing outside scheduled class time required.
Prerequisites: $E, M, R$, BIOL 205, CHEM 101 or CHEM 105 or equivalent.

210 MICROBIOLOGY FALL, WINTER
This is a basic microbiology course that introduces students to the principles of microbiology with an additional emphasis on health career applications. Instructor and student-led discussion sessions present the principles of microbiological morphology, physiology, reproduction and pathology, with special attention given to human disease. Laboratory exercises are integrated with discussion sessions and develop standard microbiology lab skills in the indentification, culture, control and assay of microorganisms.
Prerequisties: E, M, R, BIOL 101 or equivalent, CHEM 101 or CHEM 105 or equivalent.

## 212 GENETICS WINTER

This discussion based course (both instructor and student-led) includes the following sections: Mendelian genetics, DNA and chromosomes; gene transmission; linkage and recombination; genes and enzymes; the genetic code; mutations and variations; recombinant DNA; introduction to genomics; gene regulation; developmental, population, quantitative, and evolutionary genetics. Lab experiences include statistical anaylsis, molecular techniques such as polymerase chain reaction (PCR) and gel electrophoresis, RNA interference in Caenorhabditis elegans, and various computer exercises in bioinformatics.
Prerequisites: $E, M, R, B I O L 101$ or equivalent.

## 270 LIFE SCIENCE FOR THE ELEMENTARY TEACHER II WINTER

The second of a two course laboratory based biology sequence designed for prospective elementary school science teachers. This course is intended to acquaint the student with the important concepts of biology and why it is important for children to learn biology and how to help them become independent and creative investigators of nature. This course will explore the practice of science rather than a body of revealed knowledge to be memorized.
Prerequisites: $E, R, M$

## BUSINESS

## ADMINISTRATION (BUSA)

100 BUSINESS MATHEMATICS, FALL, WINTER 3(3-0)
Fundamentals of addition, subtraction, division and multiplication with whole numbers, common fractions, percentage and their application in business transactions.
Prerequisites: $M, R$

## 101 BUSINESS ACCOUNTING I, FALL, WINTER

Accounting course for secretaries, small-business accountants and owners, and those interested in double-entry accounting system. Work includes development of basic principles underlying accounting procedures and discussion of techniques and records used in analyzing, classifying, recording, summarizing and reporting business transactions. Laboratory materials, a practice set and use of computers incorporated.
Prerequisites: $M, R$

## 103 INTRODUCTION TO BUSINESS, FALL, WINTER

Survey, orientation and background course acquaints students with role of business enterprise. Deals with various areas of business and designed to help students decide field of specialization.
Prerequisite: $R$

Principles of sales-force organization, operation and selling techniques. Special emphasis given to personal selling and its part in marketing structure.
Prerequisites: $E, M, R$

## 105 PRINCIPLES OF RETAILING, ON DEMAND

Overview of field of retailing. Covers types of institutions, store location, fixtures and equipment, store organization and retail sales. Prerequisites: $E, M, R$

## 115 PRINCIPLES OF CUSTOMER SERVICE ON DEMAND

Applies basic business knowledge and skills to develop customerfocused strategies necessary to maintain competitive edge in business world. Emphasizes fundamentals, skill-building and practical ideas to keep satisfied customers.
Prerequisite: BUSA 103

## 116 FUNDAMENTALS OF QUALITY CUSTOMER SERVICE, ON DEMAND <br> Defines QCS, discusses importance, describes necessary infrastructure and helps students recognize moments of truth. Gain understanding of customer-focused company. <br> Prerequisite: BUSA 103

117 CUSTOMER COMMUNICATION, ON DEMAND 1(1-0) Effective communication skills are basis of customer service programs. Students learn active listening skills, assertive verbal communication and impact of non-verbal language in communication process. Write policies and procedures that support quality customer services. Prerequisite: BUSA 103

118 SPECIAL CUSTOMER SERVICE SKILLS, ON DEMAND 1(1-0)
Elderly customers and customers with physical disabilities require sensitivity and special attention. Overcome common feelings of awkwardness and learn do's and don'ts in providing customer services.
Prerequisite: BUSA 103
150 JOB SEARCH SEMINAR, FALL, WINTER, ON DEMAND 1(1-0) Introduction to techniques of locating and obtaining employment. Includes practice letter- and resume-writing skills and discussion of interviewing skills. Utilizes library and outside resources.
Prerequisites: $E, R$

## 151 MARKETING CAREER DEVELOPMENT, ON DEMAND 1(1-0)

Enhance value of education in marketing, merchandising and management which contributes to occupational competence. Promote appreciation for responsibilities of citizenship in free, competitive enterprise system. For students preparing for careers in management, sales, advertising, finance, retailing, wholesaling, insurance, real estate, fashion merchandising and other marketing-oriented occupations. Can be repeated up to four semester hours. Corequisite: Membership in SIFE

## 201 PRINCIPLES OF ACCOUNTING I,

 FALL, WINTER, SPRINGBasic theoretical framework of accounting presented to enable students to understand accounting principles and concepts as developed for sole proprietorship and partnership. Integration of microcomputersenables students to experience computers in accounting.
Prerequisites: $E, M, R$

Continuation of BUSA 201. Emphasis on corporation's management controls and use of accounting data. Integration of microcomputers enables students to use computer accounting programs to generate financial statements and learn to interpret these statements as basis for business decisions.
Prerequisites: $E, M, R$, BUSA 201 in previous 3 years with $C$ or better

## 203 PRINCIPLES OF ECONOMICS (Macro), FALL, WINTER, SPRING, SUMMER

3(3-0)
Emphasizes general principles of macroeconomics. Topics include supply and demand, inflation, unemployment, economic growth, business cycles, money, taxes, government spending, gross national product, price indexes, technology, wages, fiscal and monetary policy, interest rates, deficit and national debt, and international trade.
Prerequisites: $E, M, R$

## 204 PRINCIPLES OF ECONOMICS (Micro),

## FALL, WINTER, SPRING, SUMMER

Emphasizes general principles of microeconomics. Topics include supply and demand, consumer behavior, cost theory, market structures, pricing factors of production, unions, poverty, government regulation and international trade.
Prerequisites: $E, M, R$

## 205 BUSINESS LAW I, FALL, WINTER

Promotes understanding of laws covering business transactions encountered in everyday life and small businesses. Areas covered include simple contracts and negotiable instruments.
Prerequisites: $E, R$

## 207 SMALL BUSINESS MANAGEMENT, FALL

3(3-0)
For small business managers and entrepreneurs. Analytical approach embodies sound basic principles of good management. Business functions of sales, production, procurement, personnel, finances and managerial functions of planning, organizing, actuating and controlling. Actual case problems related to small business management.
Prerequisites: $E, R$

## 207A ENTREPRENEURSHIP A, FALL

1 (1-0)
This course provides an examination of an individuals's opportunity to achieve their entrepreneurial goals through understanding entrepreneurship and its relation to small business in the economy. Examination of business opportunities as they relate to small business success factors and their place within the local and global markets will be evaluated. The process of understanding and developing a Business Plan will be analayzed in respect to the goal of obtaining financial assistance. Types of business ownership will be studied as well as their place in the economy as determined by market analysis. Prerequisites: E,M,R

## 207B ENTREPRENEURSHIP B, FALL

1 (1-0)
This course continues evaluating the entrepreneurial opportunities discussed in track A by exploring family business, franchising and business start up or purchase. Further development of the Business Plan including financial data and how it is delivered will be discussed. Continued examination of selection of organizational format and the management team will be included. The marketing plan will be refined so that the financial issues will be understood within the parameters of selection of funding sources and facilities location. Customer loyalty and product strategies such as pricing, promotion, distribution will be examined.
Prerequisites: $E, M, R$

## 207B ENTREPRENEURSHIP B, FALL

This course continues evaluating the entrepreneurial opportunities discussed in track A by exploring family busines, franchising and business start up or purchase. Further development of the Business Plan including financial data and how it is delivered will be discussed. Continued examination of selection of organizational format and the management team will be included. The marketing plan will be refined so that the financial issues will be understood within the parameters of selection of funding sources and facilities location. Customer loyalty and product strategies such as pricing, promotion, distribution will be examined.
Prerequisites: $E, M, R$

## 207C ENTREPRENEURSHIP C, FALL

This course continue evaluating the entrepreneurial opportunities discussed in tracks A \& B by exploring the ethical issues faced by new business owners and their implications concerning success. Growth and its management will be examined regarding the aspects of human resources, information technology, quality and operations. This class wil provide an analysis of assessing performance through financial evaluation, risk and asset management. Opportunities for the future including the sale of the business entity will be discussed. Prerequisites: $E, M, R$

## 208 ADVERTISING AND SALES PROMOTION WINTER

Analysis of principles and practices of advertising and promoting merchandise. Study of organization and sales practices within industry and business.
Prerequisites: $E, M, R$

## 210 BUSINESS CORRESPONDENCE, FALL, WINTER, SPRING

Principles of business letter writing. Provides understanding of components of written communications that influence people toward desired results: clear thinking, effective application of psychology and correct use of language.
Prerequisite: $E, R$

## 211 PRINCIPLES OF MANAGEMENT,

 FALL, WINTER, SPRINGPrinciples of management and organization in modern business and industry. Deals with standards, methods and problems in management.
Prerequisites: $E, M, R$

## 212 ACCOUNTING APPLICATIONS ON COMPUTERS WINTER, ODD YEARS

Computer applications for accounting including general ledger, accounts receivable, accounts payable, depreciation and payroll and spreadsheet accounting using Lotus 1-2-3.
Prerequisites: $E, M, R, C I S$ 108, BUSA 201 or BUSA 101, BUSA 202 or BUSA 102 (BUSA 202 or BUSA 102 may be taken concurrently with this class)

## 213 COST ACCOUNTING I, WINTER

Fundamentals of cost accounting procedures including job cost principles and practices. Basic course in manufacturing accounting and problem solving.
Prerequisites: $E, M, R, B U S A$ 201, BUSA 202 in previous 3 years with C or better

## 214 COST ACCOUNTING II, SPRING

Continuation of BUSA 213. Major topics include budgeting procedures, flexible budget, standard costs, gross profit analysis, direct costing, break even analysis, differential and comparative cost, capital budgeting and control, profit performance measurements and linear programming.
Prerequisites: $E, M, R, B U S A$ 201, BUSA 202, BUSA 213 in previous 3 years with $C$ or better

## 216 BUSINESS STATISTICS, FALL, WINTER, SPRING

3(3-0)
Statistical decision-making surveyed. Topics include sampling techniques, tabular and graphical data, measures of central tendency and variability, simple probability, probability distributions (binomial, normal, $t$, chi-square and F), Central Limit Theorem, correlation and regression, estimation, hypothesis testing and analysis of variance. Prerequisites: $E, R$, MATH 122 with $C$ or better or equivalent

## 218 INTERMEDIATE ACCOUNTING I, FALL

3(3-0)
Definition and valuation of current assets and liabilities, income measurements, balance sheet, cash flow, inventory valuation methods, plant assets, intangible assets and present-value methods.
Prerequisites: $E, M, R$, BUSA 201, BUSA 202 in previous 3 years with C or better

## 219 INTERMEDIATE ACCOUNTING II, WINTER

3(3-0)
Stockholder's equity, treasury stock, long-term liabilities, income tax allocation, investments, statement of cash flow, analysis of financial statements, price level changes, pension fund provisions and leases. Prerequisites: $E, M, R, B U S A 201, B U S A$ 202, BUSA 218 in previous 3 years with $C$ or better

## 220 ORGANIZATIONAL BEHAVIOR, FALL, WINTER 3(3-0)

This course provides an examination of individual, interpersonal, group, and organization processes faced by employees. Current theory, research, and practive regarding variables that influence human behavior are discussed. Emphasis is placed on learning relevant to goal setting, managing change, team processes, reward structures, human productivity, and career management in organization settings.
Prerequisites: $E, M, R$

## 224 INCOME TAX ACCOUNTING, FALL

Federal and state income tax laws as applied to individual, partnership and corporation returns.
Prerequisites: $E, M, R, B U S A 201$ in previous 3 years with $C$ or better

## 225 PERSONNEL MANAGEMENT, ON DEMAND <br> 3(3-0)

Organizational and administrative role of personnel in organizations and internal and external factors that influenced evolution of personnel.
Prerequisites: $E, M, R$

## 261 DISTRIBUTIVE EDUCATION CO-OP I, FALL, WINTER

FEE, 3(1-15)
Classroom and supervised on-the-job training in approved jobs obtained in retailing, wholesaling, marketing, or service outlets. Includes classroom lectures, research and work experience in related business organization. Requires minimum 15 hours of work per week. Application must be placed with coordinator to participate in class.
Prerequisites: $E, M, R$, advanced standing for marketing and retailing majors, 2.00 GPA or higher in all previous college work, approval of Co-op Coordinator and signature of marketing program advisor.

## 262 DISTRIBUTIVE EDUCATION CO-OP II, WINTER

FEE, 3(1-15)
For those students who successfully complete BUSA 261. Requires minimum 15 hours of work per week. Application must be placed with coordinator to participate in class.
Prerequisites: $E, M, R, B U S A 261$ or equivalent

## 263 MANAGEMENT TRAINEE CO-OP I, FALL, WINTER

FEE, 3(1-15)
Classroom and cooperative training includes supervised, on-the-job managerial experience in business and industry. Requires minimum 15 hours of work per week. Application must be placed with coordinator to participate in class.
Prerequisites: $E, M, R$, advanced standing in management trainee program, 2.00 GPA or higher in all previous college work, approval of Co-op Coordinator and signature of Management Program Advisor.

## 264 MANAGEMENT TRAINEE CO-OP II, WINTER FEE, 3(1-15)

For students who successfully complete BUSA 263. Requires minimum 15 hours of work per week. Application must be placed with coordinator to participate in class.
Prerequisites: $E, M, R, B U S A 263$ or equivalent, approval of Co-op Coordinator and signature of management program advisor.

265 ACCOUNTING CO-OP I, FALL, WINTER FEE, 3(1-15)
Students work in approved accounting position to gain on-the-job training. Requires minimum 15 hours of work per week. Each student meets one hour per week with advisor in related class.
Prerequisites: $E, M, R$, completion of all first year courses in
Accounting program with minimum GPA of 2.00, approval of Co-op coordinator and signatures of Accounting program advisor and one other full-time business administration instructor

## 266 ACCOUNTING CO-OP II, WINTER

FEE, 3(1-15)
For students who successfully complete BUSA 265. Requires minimum 15 hours of work per week. Application must be placed with coordinator to participate in class.
Prerequisites: E, M, R, BUSA 265, approval of Co-op Coordinator and signatures of Accounting program coordinator and one other full-time business administration instructor

## CHEMISTRY (CHEM)

Full two-year sequence:
1 st year-CHEM 111 \& CHEM 112
2nd year - CHEM 203 \& CHEM 204
These four courses transfer into pre-professional programs
(medicine, chemistry, dentistry, engineering, etc.).

## 101 INTRODUCTORY CHEMISTRY I,

## FALL, WINTER, SUMMER

4(3-3)
For students with little or no background in chemistry. Concepts of energy and matter, properties of gases, liquids and solids, structure of atoms, periodic table, chemical bonds, formulas and equations, stoichiometry and solutions. Laboratory includes introduction to qualitative analysis. Credits apply toward Associate Degree. May transfer for science credit but usually not as General Chemistry (depends on specific school and program).
Prerequisites: $E, M, R$, one year of high school algebra, with $C$ or better

102 INTRODUCTORY CHEMISTRY II, (ON DEMAND) 4(3-3) Continuation of CHEM 101 with following units: thermochemistry, chemical equilibrium, acids and bases, oxidation and reduction, electrochemistry, metals production, properties of selected elements, organic and biochemistry. Laboratory includes analysis and synthesis. Suitable for 2-year Health Science programs.
Prerequisites: $E, M, R$, CHEM 101

## 105 FUNDAMENTALS OF INORGANIC CHEMISTRY, FALL, WINTER, SPRING

Introductory course that usually fulfills Chemistry requirement for Health Science students. States of matter, atomic and molecular structure, stoichiometry, chemical bonding, reactions of metals and non-metals, solutions, acid-base theory, gases and nuclear chemistry. Includes a three hour laboratory experience per week.
Prerequisites: $E, M, R$, MATH 095 or pass algebra proficiency test

## 106 FUNDAMENTALS OF ORGANIC AND BIOLOGICAL CHEMISTRY, WINTER

Includes brief introduction to organic chemistry as it applies to biochemistry, including structural formulas and functional groups. Covers structure, properties and metabolism of carbohydrates, lipids, proteins and nucleic acids. Other topics include enzymes, nutrition and biochemical energetics.
Prerequisites: $E, M, R$, CHEM 101 or CHEM 105

## 111 GENERAL CHEMISTRY I, FALL

With adequate background in beginning chemistry, problems solved in these fields: inorganic, physical, analytical and organic. Laboratory exercises illustrate general principles. Course meets transfer requirements toward B.S. degrees in sciences.
Prerequisites: $E, M, R, C H E M 101$ or two years high school mathematics and one year high school chemistry or CHEM 105

## 112 GENERAL CHEMISTRY II, WINTER

Continuation of CHEM 111 with emphasis upon ionic equilibria.
Laboratory exercises involve solubility product, potentiometric titration and methods of quantitative analysis.
Prerequisites: $E, M, R$, CHEM 111

## 203 ORGANIC CHEMISTRY I, FALL

4(3-3)
Chemistry of compounds of carbon. Meets requirements for majors in chemistry, biological science, chemical engineering and health science. Includes nomenclature, structure, isomerism, synthesis, functional groups and mechanisms. Problems and laboratory work for each unit.
Prerequisites: $E, M, R$, CHEM 112 or CHEM 102 with consent of instructor

## 204 ORGANIC CHEMISTRY II, WINTER

Continuation of CHEM 203. Includes additional functional groups and mechanisms plus introduction to biochemistry. Laboratory includes qualitative analysis and use of infrared spectrometer, gas chromatograph, polarimeter, refractometer.
Prerequisites: $E, M, R$, CHEM 203

## COLLEGE LIFE STUDIES (CLS) 100 COLLEGE \& CAREER SUCCESS

FALL, WINTER, SUMMER
Designed to increase student success by offering a comprehensive orientation to the Lake Michigan College experience. Students will be introduced to college web-based resources and services including Wavelink and Blackboard, technology-based program planning and transfer information, and library research databases. Additional topics include career/major decision-making, understanding college expectations, time management, effective study and learning strategies, and living and working in a diverse global society. Pre-requisites: none

## 110 CAREER DECISION MAKING, FALL, WINTER, SPRING

Realistic career decision making and planning important to any stage of life. Students learn career paths most appropriate now and in future. Students examine resources, values and abilities through testing and computerized search processes. Students identify three to five career opportunities appropriate to aptitude and skills. Not intended for transfer.

## 115 CAREER SUCCESS STRATEGIES,

 FALL, WINTER, SPRING, SUMMER Increase career success by exploring and implementing real life strategies for employment/personal achievement. Job readiness skills and employer expectations examined. Identify personal strengths, evaluate areas needing improvement and explore applicable solutions. Examine self, time, conflict management, working collaboratively with others, accepting responsibility and using workplace communication skills through a systematic self-assessment process. Not intended for transfer.216 STRESS MANAGEMENT, FALL, WINTER
This course assists the student in understanding the physiological responses to stress and assist in developing techniques for better stress management.

## 217 HEALTH ISSUES: SELF-ESTEEM, FALL, WINTER 1(1-0)

 Assists in growth in ability to love and care for oneself and others. Techniques practiced daily to enhance self-esteem and variety of selfesteem issues presented.
## COMMUNICATION (COMM)

101 INTRODUCTION TO PUBLIC SPEAKING, FALL, WINTER
Beginning course in public speaking dealing with application of basic principles and practices of effective speaking. Coursework includes oral presentations and practical applications of speech communication theory.
Prerequisites: $E, R$

## COMPUTER INFORMATION SYSTEMS (CIS) <br> 100 INTRODUCTION TO COMPUTER LTTERACY, FALL, WINTER, SPRING, SUMMER

Introductory course for non-dataprocessing majors. Addresses following topics: history of computing, computer hardware, computer software, computers in business and society, and ethical issues. Students get hands-on use of application software packages. Prerequisites: $E, M, R$

## 102 BASIC COMPUTER LITERACY, FALL, WINTER

1(1-0)
Addresses the following topics: history of computing, computer hardware, computer software, computers in business and society, and ethical issues in addition to basic computer operation and introduction to application packages. Minimal typing skills. Prerequisites: $E, M, R$

## 106 INTRODUCTION TO OPERATING SYSTEMS, FALL, WINTER, SPRING, SUMMER

Build a foundation of knowledge about Graphical User Interface that prepares for skilled use of operating systems. Topics include command line prompts, GUI fundamentals, modifying the desktop, file/document/folder management, customizing the desktop, communications, working with multimedia and maintaining the computer system.
Prerequisites: $E, M, R$

## 108 COMPUTER OPERATIONS - MICROCOMPUTING,

## FALL, WINTER, SPRING, SUMMER

3(3-0)
Provides experience in operating systems, word processing, electronic spreadsheet, database and graphic presentation software. Emphasis placed on practical use of application software. No prior computing knowledge required. Not designed for transfer.
Prerequisites: $E, M, R$, Minimum typing skills

## 111 DATABASE CONCEPTS, FALL, SPRING

Database theory, applications and programming. Students use database management system software to create, use and modify database definitions, input screens, report formats, indices, queries and top link database files. Students design, code and debug database software.
Prerequisites: $E, M, R, C I S 100$ or CIS 108 (or equivalents)

## 117 INTRODUCTION TO GAME DESIGN THEORY FALL, WINTER

This survey course is an interdisciplinary Core Topic that combines approaches from history, literature, media studies and design. The goal is to develop and refine a critical vocabulary for articulating the aesthetics of games. Games Studies offers insight into the textual analysis of game play, while established work on other media, such as literature, film, television, theater, and interactive arts provides a rich critical framework.
Prerequisites: $R$, or instructor permission

## 118 BASIC WEB DESIGN, FALL, WINTER, SPRING 3(3-0)

 Basic web page design will be covered. Developing and maintaining Internet and Intranet applications by introducing various aspects of the Web design process. Storyboarding, content management, design elements, navigational design, link management, database connectivity, scripting tools, searchengines and indexing.
Prerequisites: $E, M, R, C I S 108$ (or equivalent)

## 121 WINDOWS SKILLS, FALL, WINTER, SPRING, SUMMER 1(0-1) OE/OE

 Fundamentals of Graphic User Interface and proper ways to solve GUI problems. Practical applications illustrate many new capabilities of graphical user/World Wide Web environment. Introductory course covering essential aspects of Graphic User Interface.
## 122 WORDPROCESSING SKILLS,

FALL, WINTER, SPRING, SUMMER 1(0-1) OE/OE
Fundamentals of document construction and proper ways to solve document problems. Practical problems illustrate wordprocessing applications and capabilities of wordprocessing in graphical user/ World Wide Web environment. Introductory course, covering essential aspects of wordprocessing.

## 123 SPREADSHEET SKILLS,

FALL, WINTER, SPRING, SUMMER $\quad 1(0-1)$ OE/OE Fundamentals of worksheet construction and proper ways to solve worksheet problems. Practical problems illustrate worksheet applications and capabilities of worksheets in graphical user environment. Introductory course, covering essential aspects of worksheets.

## 124 DATABASE SKILLS,

## FALL, WINTER, SPRING, SUMMER <br> 1(0-1) OE/OE

Fundamentals of database construction and proper ways to solve database problems. Practical problems illustrate database applications and capabilities of database in graphical user environment. Introductory course, covering essential aspects of databases.

## 125 GRAPHIC PRESENTATION SKILLS, FALL, WINTER, SPRING, SUMMER 1(0-1) OE/OE Fundamentals of presentation construction (projection devices, transparencies and 35 mm slides) and proper ways to solve presentation problems. Practical problems illustrate presentation applications and capabilities of presentation graphics in graphical user environment. Introductory course, covering essential aspects of presentation graphics.

## 140 COMPUTER NETWORKING FUNDAMENTALS, FALL, WINTER

This covers basic computer networking terminology, topologies, systems, protocols, devices and management. The ISO standards are covered. Emphasis is placed on peer-to-peer networking, media and cable installation standards, IP addressing including subnet masks and encapsulation. Students will create and secure a peer-topeer networks containing both Windows 98, Windows 2000 and Windows XP computers and can differentiate between OS/NIC and network problems and overcome the OS problems. Students will create Windows XP networks, secure the network and create base line data.
Prerequisites: $E, M, R$, CIS 100 or CIS 106 or CIS 108.

145 COMPUTER PROGRAMMING - COBOL I, FALL
The COBOL programming language is the most widely used for business type applications. Students will design, code, compile, and execute programs addressing: program structure, documentation, standards, style, testing, debugging, input, output, repetitive processing, editing, and control break logic.
Prerequisites: $E, M, R$, CIS100, CIS251 or Previous Programming Experience

## 155 COMPARATIVE OPERATING SYSTEMS, FALL, WINTER

 3(2-2) This course is designed for those students wishing to develop an understanding of current operation systems, their differences and similarities, user interfaces and application considerations. Given a PC install windows 2000, windows XP, Vista or Linux and access and change BIOS, configure users, and automatic back ups (data and system information/settings), demonstrate recovery from crashes, use the command line (shell), maximize the security of the PC, use system and administrative tools. This course is not intended for transfer. Prerequisites: $E, M, R, C I S 100$ or 106 or 108 or instructor approval.
## 156 PRACTICAL COMPUTER SECURITY, FALL, WINTER

The purpose of this course is to provide students with a comprehensive overview of computer and network security issues including the numerous types of attacks computers are vulnerable to, the types of attacker profiles, and the hardware and software defense solutions available. Covers topics from configuring personal virus detection and firewalls to VPNs, Firewalls and Access Control lists. it is a practical course where students will gain an appreciation and better understanding of the terms and devices employed in securing networks and home computers rather than developing employable skills.
Prerequisites: $\mathrm{E}, \mathrm{M}, \mathrm{R}, \mathrm{CIS100}$ or CIS106 or CIS108

## 157 INTRODUCTION TO COMPUTER FORENSICS \& INVESTIGATION, (ON-DEMAND)

The purpose of this course is to provide the student with a comprehensive understanding of computer forensics and investigation tools and techniques. You will learn what computer forensics and investigation is as a profession and gain an understanding of the overall investigative process. All major personal computer operating system architectures and disk structures will be discussed.
Prerequisites: $R$, Instructor permission

## 200 PC HARDWARE, FALL, WINTER

Personal computer system operation, maintenance and repair. Includes keyboard, monitors, chassis and power supply, logic board, processors, drives and printers. Students use diagnostic software and hardware, specify and assemble computer systems. Prepares for the A+ Certification Examination.
Prerequisites: $E, M, R$, CIS 100 or CIS 106 or CIS108

## 208 ADVANCED MICRO APPLICATIONS, WINTER

Advanced experience in office productivity software. Topics include word processing, spreadsheets, databases, presentation graphics, and topics of current interest. Emphasis on practical use of application soffware in business environment. Not intended for transfer.
Prerequisites: $E, M, R, C I S 108$ (or equivalent)

## 219 PROFESSIONAL WEB DESIGN, WINTER

A skills course to help students refine the mechanics of CIS-118 Basic Web Design. Current advanced topics will be covered to help students enhance web pages. Advanced software tools will be used Prerequisite(s) - $E, M, R$, CIS 118 - or equivalent

## 220 WEB PROGRAMMING, FALL

Personal computer system operation, maintenance and repair. Includes keyboard, monitors, chassis and power supply, logic board, processors, drives and printers. Students use diagnostic software and hardware, specify and assemble computer systems. Prepares fore the A+Certification Examination.
special effects.
Prerequisite(s) - $E, M, R, C I S 118$ - or equivalent

## 221 SERVER-SIDE SCRIPTING, FALL

Server based scripting languages are used to develop powerful applications. Database applications using current scripting languages will be discussed and used.
Prerequisite(s) - $E, M, R$, CIS 118 - or equivalent

## 222 ADVANCED WORD PROCESSING SKILLS, FALL, WINTER, SPRING, SUMMER <br> 1(0-1) OE/OE

Advanced principles of document construction and proper ways to solve document problems. Practical problems illustrate word processing applications and capabilities in a graphical user/World Wide Web environment.
Prerequisite(s): CIS 108 or CIS 122, (or equivalent)

## 223 ADVANCED WORKSHEET SKILLS,

 FALL, WINTER, SPRING, SUMMER1(0-1) OE/OE
Advanced principles of worksheet construction and proper ways to solve worksheet problems. Practical problems illustrate worksheet applications and capabilities in a graphical user/World Wide Web environment.
Prerequisite(s): CIS 108 or CIS 123, (or equivalent)

## 224 ADVANCED DATABASE SKILLS, FALL, WINTER, SPRING, SUMMER

## 1(0-1) OE/OE

Advanced principles of database construction and proper ways to solve database problems. Practical problems illustrate database applications and capabilities in a graphical user/World Wide Web environment.
Prerequisite(s): CIS 108 or CIS 124 (or equivalent)

## 225 ADVANCED PRESENTATION SKILLS, FALL, WINTER, SPRING, SUMMER

1(0-1) OE/OE
Advanced principles of presentation construction and proper ways to solve presentation problems. Practical problems illustrate presentation applications and capabilities in a graph I cal user/World Wide Web environment.
Prerequisite(s): CIS 108 or CIS 125 (or equivalent)

226 CISCO ICND 1 REVIEW, WINTER
This course covers the topics of the Cisco ICND 1 exam. This course covers LAN technologies and operation, WAN devices, explaining and selecting appropriate administrative tasks required for WLANs, identifying security threats and methods to mitigate them, implementing small routed networks, small switched networks, implement and verify WAN links, Implement an IP addressing scheme and IP services to met network requirements for a small branch office, subnetting, routed and routing protocols, components of and boot sequence of a Cisco router. Students will configure routers and routing protocols and switches.
Prerequisites: $E, M, R$, CIS140, CIS 150, or Cisco Academy CCNA 1, or instructor permission.

## 227 CISCO ICND2/CCNA REVIEW, WINTER

3(2-2)
This course generally covers LAN technologies, WAN protocols, VLSM, bridging, switching, routed and routing protocols. Students will configure routers and switches including VLANs with trunking \& ACLs as required by the certification exams (see cisco.com certifications for specific topics).
Prerequisites: E,M,R, CIS226 or Cisco Academy CCNA1, 2 \& CCNA 3, or instructor permission.

228 SWITCHED \& ROUTED NETWORKS, FALL
This course introduces some of the more complex topics of the Cisco ICND 2 and CCNA certification exam (Access Control Lists and Variable Length Subnet Masking), additional switching topics and firewalls. It also provides education and hands on experience with switching and routing topics not covered by Cisco CCNA level certifications such as the newer switches that integrate server capability. Education regarding security measures employed at switches and routers will be studied then configured on the devices in the lab.

Students will configure routers and routing protocols, VPNs, switches and firewalls. Students will build small switched LANs and configure the WAN interfaces on routers.
Prerequisites: $E, M, R$, CIS 226 or Cisco Academy CCNA 1 and CCNA 2, or instructor permission.

240 COMPUTER SYSTEMS ANALYSIS/DESIGN, FALL 4(3-2)
Understand the process of developing information systems that effectively use hardware, software, data, processes, and people to support the company's business objectives
Prerequisite(s): $\mathrm{E}, \mathrm{M}, \mathrm{R}, \mathrm{CIS}$-108 or CIS-208 or Instructor permission

## 241 ADVANCED COMPUTER NETWORKING

## FALL, WINTER

The goal of this course is to provide basic understanding of switching and routing in computer networks. Students will create networks and configure switches (including creating and managing VLANs) and routers (configuring various routing protocols such as RIP, OSPF, IGRP) and the networks they create.
Prerequisites: $E, M, R$ CIS140 concurrently

## 242 WINDOWS SERVER, FALL, SPRING

Provides a foundation in Windows. Covers all objectives required for the Microsoft Certification Exam 70-215: Installing, Configuring and Administering Microsoft Windows Server. Hands-on labs will supplement the classroom activities.
Prerequisites: $E, M, R$, CCIS 140

## 245 COMPUTER PROGRAMMING - COBOL II, WINTER, SPRING

COBOL programming language is widely used for business applications. Continuation of CIS-145. Students design, code, compile and execute programs addressing file access (sequential, indexed and random), libraries, report writer, program efficiency, documentation and data management.
Prerequisites: $E, M, R$, CIS 145 (or equivalent)

## 250 ADVANCED TOPICS (ON-DEMAND)

4(3-2)
An introduction to pertinent topics of the emerging significance in business data processing. The following topics could be addressed: Navigating your Palm Pilot, Project Management software, Communication Networks, the Internet and the World Wide Web, Productivity Software Applications, Integrating Technology, Nano Technology, Network Security, Advanced Software Applications. Prerequisites: E, M, R, Math-109, Pre-Calculus Algebra and CIS100, Introduction to Computer Literacy

## 251 COMPUTER PROGRAMMING - BASIC, FALL, WINTER, SPRING

Designed for students with little programming experience beyond Computer Literacy. Problem solving, program design, coding, debugging and system commands necessary to create and execute programs in BASIC. Programming assignments given to build technical skills. Topics include language syntax, declaration and data types, variables and constants, arrays, executable instructions, statements and expressions, programming structures (i.e. sequence, selection, iteration) and modularity. Prerequisites: $E, M, R$, MATH 109 or CIS 100 (or equivalent)

## 252 COMPUTER PROGRAMMING - FORTRAN, (ON-DEMAND)

3(3-0)
Mathematic and engineering application programming using Fortran. Students design, code, compile and execute Fortran programs. This course required for engineering transfer students and taken by CIS students as elective.
Prerequisites: $E, M, R$, MATH 109 or CIS 100 (or equivalent)
254 COMPUTER PROGRAMMING - C, FALL, WINTER 3(3-0)
Fundamentals of programming microcomputer using $C$ language. Students obtain knowledge and practice writing programs in C. Requires substantial prior programming experience in structured high-level language (see prerequisites) as C is programming language used as basis for Graphic User Interfaces in Windows. Prerequisites: E, M, R, CIS 145 or CIS 245 or CIS 251 or CIS 252 (or equivalent)

## 255 STRUCTURED QUERY LANGUAGE, WINTER

## Structured Query Language (SQL) is standard language for query

 databases. Most database tools offer varying menus and functions and share common underlying SQL engine interface. Experience creating and running independent databases in SQL.Prerequisites: $E, M, R, C I S 111$ (or equivalent)

## 256 NOVELL NETWORKING I, FALL

A study of configuring and managing networks using the Novell NetWare network operating system. Concepts, tools and techniques will be presented and used to create and administer a complete Novell NetWare network. Covers objectives required for Certified Novell Administrator (CNA) exam.
Prerequisites: CIS 106, CIS 140 (or equivalent) $E, M, R$

257 NOVELL NETWORKING II, WINTER
Further study of networking with Novell NetWare. Emphasis is placed on managing the network. Specific areas include printer management, users, groups, security, rights and attributes. Covers objectives required for NetWare Advanced Administration test. Prerequisites: E,M,R, CIS 106, CIS 140, CIS 256 (or equivalent)

## 260 COMPUTER PROGRAMMING - VISUAL BASIC, FALL

Introduction to Visual BASIC, used by Windows and Windows based applications to create and modify applications. Highly recommended for individuals wishing to design or modify Application Programs. Not intended for transfer.
Prerequisites: $E, M, R$, CIS 251 (or equivalent)

## 261 COMPUTER INFORMATION SYSTEMS CO-OP I

## FALL, WINTER

FEE 3(1-15)
This course integrates a student's academic studies with work experience in an approved data processing job that the student has obtained and in which the student earns credits for satisfactory data processing experience. A minimum of 15 hours per week is required. Each student meets one hour per week with the coordinator in a related class. To participate in the class, application must be placed with the coordinator.
Prerequisites: advanced standing in the data processing program, a 2.00 GPA or higher in all previous college work, and approval of the co-op coordinator, the Computer Information Systems program coordinator, and one of the full-time Business Administration Faculty; $E, M, R$.

## 262 COMPUTER INFORMATION SYSTEMS CO-OP II, WINTER

FEE 3(1-15)
This is an elective course for those students who have successfully completed 261 Computer Information Systems Co-op I. A minimum of 15 hours of work per week is required. Each student meets one hour per week with the coordinator in a related class. To participate in the class, application must be placed with the coordinator. Prerequisites: CIS261, and approval of the co-op coordinator; $E, M, R$

## 264 COMPUTER PROGRAMMING - "C++"

This course is designed for those students desiring advanced experience in the AC=language. The fundamentals of programming the microcomputer using the "C++" language will be covered. Students obtain knowledge and practice by writing programs in "C++". The course requires substantial prior programming experience in a structured high-level language (see prerequisites) as " $\mathrm{C}++$ " is one of the programming languages used as the basis for today's Graphic User Interfaces. This course is not intended for transfer.
Prerequisites: CIS254, Computer Programming - AC=, previous programming experience or permission of the instructor, $E, M, R$

## 265 COMPUTER PROGRAMMING VISUAL BASIC 2, WINTER

3 (3-0)
Further study of Visual Basic programming. Additional topics will include:Database interfacing, Mouse events, Advanced tools and Program distribution.
Prerequisites: $E, M, R$, MATH 128, CIS 251, CIS 260 (or equivalent)

270 OPERATING SYSTEMS SECURITY (ON-DEMAND) 3(3-0)
In this course, we will take an in depth look at operating system security concepts and techniques. We will examine theoretical concepts that make the world of security unique. Also, this course will adopt a practical hands-on approach when examining operating system security techniques. Along with examining different security strategies, this course will explore the advancement of security implementation, as well as, timeless problem solving strategies Prerequisites: $E, M, R$, instructor permission

## 271 WEB SECURITY FOR ADMINISTRATORS (ON-DEMAND)

This course provides a comprehensive overview of building and maintaining firewalls in a business environment. It is designed for the student and network administrator who need to learn the basics of network firewall security. It covers basic installation techniques, discusses how to make an intelligent choice of firewall technology, and presents basic firewall troubleshooting. Specific topics covered include: planning/design, security, configuration, packet filtering, proxy servers, authentication, encryption, and Virtual Private Networks.
Prerequisites: $E, M, R$, instructor permission

## 272 NETWORK DEFENSE AND COUNTERMEASURES, (ON-DEMAND)

In this course, we will take an in depth look at network defense concepts and techniques. We will examine theoretical concepts that make the world of networking unique. This course will also adopt a practical hands-on approach when examining network defense techniques. Along with examining different network defense strategies, this course will explore the advancement of network implementation, as well as, timeless problem solving strategies. Prerequisites: $E, M, R$, instructor permission

280 DISASTER RECOVERY (ON-DEMAND) 3(3-0)
The goal of this course is to provide a thorough, step-by-step process for learning the fundamentals of disaster recovery planning. Disaster recovery planning is the process of assessing risks that an organization faces, and then developing, documenting, implementing, testing, and maintaining procedures that help the organization quickly return to normal operations and minimize losses after a disaster. This course will enable individuals to become disaster recovery planning team leaders and members. This course is not designed as a hands-on class
Prerequisites: $E, M, R$, instructor permission

## 290 MANAGING INFORMATION SECURITY (ON-DEMAND)

This course examines the clear need for management to understand the foundations of managing information security and the development of managerial strategies for information security as they relate to the important economic consequences of security accountability.
Prerequisites: $E, M, R$, instructor permission

293 NETWORK "SECURITY +" FUNDAMENTALS (ON-DEMAND)

3(3-0)
This course meets the needs of students and professionals that want to master practical network and computer security. This course takes a comprehensive view of the types of attacks that are launched against networks and computer systems. It examines network and computer security defense mechanisms, and offers practical tools, tips, and techniques to counter attackers.
This course maps to the Computer Technology Industry Association's (CompTIA) Security+ Exam. (www.comptia.org)
Prerequisites: $E, M, R$, instructor permission
295 PROJECT MANAGEMENT, WINTER
Understand the genesis of project management and its importance to improving the success of information technology projects.
Prerequisite(s) - E,M,R, CIS-108 or CIS-208 or instructor permission

## CORRECTIONS, PROBATION \& PAROLE (CORR)

## 160 INTRODUCTION TO CORRECTIONS, FALL

Provides understanding of correctional systems. Topics include history and philosophical development of corrections, legal process, probation, imprisonment and parole, rights of prisoners and community-based corrections. Related responsibilities and vocational opportunities examined.
NOTE: To qualify for Corrections Officer Academic Certificate, students must achieve at least a $C$ (2.0) in course.
Prerequisites: $E, R$

## 161 INSTITUTIONAL OPERATIONS, FALL

Introductory study of correctional institutions and role in criminal justice process and society. Course inclu des, but is not limited to, study and discussion of correctional institutions, history, purpose, objectives, study of types of institutions, correctional programs, institutional problems, security procedures, correction and criminal law, management techniques, alternatives to institutionalization and correctional planning.
NOTE: To qualify for Corrections Officer Academic Certificate, a student must achieve at least a C (2.0) in course.
Prerequisites: $E, R$

## 162 INSTITUTIONAL POPULATIONS, WINTER

Basic principles of human and criminal behavior and role of biological, psychological, environmental and social influences in development of normal and criminal personalities. Individual and group techniques for changing attitudes. Institutionalization and controlled community alternatives to institutionalization evaluated. NOTE: To qualify for Corrections Officer Academic Certificate, a student must achieve at least a $C$ (2.0) in course.
Prerequisites: $E, R$

## 163 CONCEPTS OF REHABILITATION, FALL

Meaning and function of culture in relationships, minorities and impact of discrimination, attitude formation and professional responses to human behavior. Current theory and practice in rehabilitation in federal, state and municipal systems are discussed. Emphasis on state program.
NOTE: To qualify for Corrections Officer Academic Certificate, a student must achieve at least a $C$ (2.0) in course.
Prerequisites: $E, R$

## 164 LEGAL ISSUES IN CORRECTIONS, WINTER 3(3-0)

Explores legal issues in corrections. Topics include constitutional law, law and court process, U.S. and State courts and court cases, Section 42 and prisonery rights. Cases and statutes read and analyzed for impact on corrections. Role of corrections officers in complying with law discussed.
NOTE: To qualify for Corrections Officer Academic Certificate, a student must achieve at least a $C(2.0)$ in course.
Prerequisites: $E, R$

## 264 CASE STUDIES IN REHABILITATION, WINTER 3(3-0)

Modern trends in corrections, such as community-based programs in work-release, halfway houses, contract program planning. Therapeutic community and treatment team concept in institutions described and evaluated. Problems of correctional programming for short-term offender, special emphasis on alcoholism, drug abuse and narcotic problems, prostitution, homeless persons and related problems.
Prerequisites: $E, R$, Sophomore standing in Corrections, Probation \& Parole

## DENTAL ASSISTING (DENT)

## 165 INTRODUCTION TO DENTAL ASSISTING,

 FALL, WINTER, SPRING, SUMMER OE/OE 3(2-2) Introductory course to dental assisting. Topics include dental teamwork, use of language, listening skills and personal oral hygiene. Prerequisites: $E, R$, acceptance into Dental Assisting Program or permission of Dental Assisting Coordinator. Transitional Studies courses can be taken concurrently.
## 166 CHAIRSIDE I,

## FALL, WINTER, SPRING, SUMMER

OE/OE 3(2-2)
Introductory course in concepts of four-handed dentistry. Basic dental equipment, instrument identification, sterilization procedures, medical record history, infection control and vital signs presented.
Prerequisites: E, R, DENT 165 or permission of Dental Assisting Coordinator
Transitional studies courses cannot be taken concurrently.

## 167 CHAIRSIDE II,

FALL, WINTER, SPRING, SUMMER
OE/OE 3(2-2)
Continuation of DENT 166, Chairside I, and includes identification of handpieces, proper mixing of dental materials, precautions in use of nitrous oxide and assisting with topical and local anesthetics. Prerequisites: E, R, DENT 165, DENT 166 or permission of Dental Assisting Coordinator

## 168 CHAIRSIDE III, FALL, WINTER, SPRING, SUMMER

 OE/OE 3(2-2)Continuation of DENT 167, Chairside II. Topics addressed include performing chairside functions, fabricating custom trays, preparing final impressions, taking bite registrations, pouring and trimming study model and utilizing various types of orthodontic appliances. Prerequisites: E, R, DENT 167 or permission of Dental Assisting Coordinator

## 169 CHAIRSIDE IV, FALL, WINTER, SPRING, SUMMER

OE/OE 3(2-2)
Introduces the dental assistant's role in oral surgery, endodontics and pediatric dentistry.
Prerequisites: E, R, DENT 168 or permission of Dental Assisting Coordinator

## 170 INTRODUCTION TO BUSINESS ASSISTING,

 FALL, WINTER, SPRING, SUMMER OE/OE 3(2-2)Duties of dental business assistant including maintaining appointment book, controlling supply inventory, processing and mounting radiographs, completing insurance forms and preparing written communications.
Prerequisites: E, R, DENT 169 or permission of Dental Assisting Coordinator

## 171 INTRODUCTION TO DENTAL RADIOGRAPHY,

## FALL, WINTER, SPRING, SUMMER <br> OE/OE 4(2-4)

Study of use of $x$-radiation in dentistry. Exposure techniques of dental radiography, radiation dosage and hazards. Protective measures for patient and operator are stressed. Students must be 18 years of age or older to enroll in course.
Prerequisites: DENT 170 or permission of Dental Assisting Coordinator

## 172 MEDICAL ISSUES IN THE DENTAL OFFICE, FALL, WINTER, SPRING, SUMMER

OE/OE 2(2-0) Medical and dental emergencies and drugs encountered in treatment of dental patients.
Prerequisites: E, R, DENT 170 or permission of Dental Assisting Coordinator

173 CLINICAL I (OFF-CAMPUS), FALL, WINTER, SPRING, SUMMER 6(1-15) Students assigned in community dental offices for clinical experiences. Includes review for Dental Assisting National Board examination and professional activities. Weekly seminar held with college instructor. Prerequisites: E, R, DENT 169, DENT 171 and DENT 172

174 RDA I, FALL, WINTER, SPRING, SUMMER, OE/OE 3(2-2) Advanced functions of Michigan Registered Dental Assistant including placement and removal of temporaries and rubber dams. Students study state and national guidelines in infection control, hazard communication and waste disposal.
Prerequisites: $E, R$, successful completion and/or current enrollment in DENT 173 or permission of Dental Assisting Coordinator

175 RDA II, FALL, WINTER, SPRING, SUMMER, OE/OE 3(2-2) Continuation of RDA I includes advanced charting, extraoral and intraoral examination, suture removal and application of periodontal dressing, topical fluoride and pit and fissure sealants. Ethics and jurisprudence presented. Simulated RDA written and clinical board given at end of course.
Prerequisites: E, R, DENT 174 or permission of Dental Assisting Coordinator

## 176 CLINICAL II (OFF-CAMPUS), FALL, WINTER, SPRING, SUMMER <br> 5(1-12)

Students assigned to community dental offices for clinical experience in expanded functions. Weekly seminar held with college instructor. Prerequisites: $E, R$, Successful completion of all dental assisting courses

## DIAGNOSTIC MEDICAL SONOGRAPHY

## 100 INTRODUCTION TO DIAGNOSTIC MEDICAL SONOGRAPHY

Introduction to the physical and mathematical principles of ultrasonography. Review of: historical background; basic patient care skills; legal documention; ethical principles and personal workplace safety.
Prerequisites: $E, M, R$, Entrance into the program.

## 101 GENERAL SONOGRAPHY I ABDOMEN

4(4-0)
This course provides the student with abdominal sonographic cross sectional anatomy and pathology demonstrated in the transverse, longitudinal and coronal planes.
Prerequisites: $E, M, R, D M S O 100$

## 102 GENERAL SONOGRAPHY I OB/GYN, FALL

Introduction to: fetal and maternal cross-sectional anatomy and pathology; biological effects of fetal ultrasonography, prenatal diagnoses and syndromes.
Prerequisites: $E, M, R, D M S O 100$
103 SONOGRAPHY LAB APPLICATIONS I, FALL 2(0-4) This course provides the student with lab applications in general abdominal and OB GYN sonographic cross sectional anatomy and pathology demonstrated in the transverse, logitudinal and coronal planes.
Prerequisites: $\mathrm{E}, \mathrm{M}, \mathrm{R}, \mathrm{DMSO}$ 100, Concurrently DMSO101, DMSO102

## 104 CLINICAL EXPERIENCE A, FALL

3(0-24)
The first in a five semester sequence of scanning applications and techniques, for imaging related to abdomen, pelvic, small parts and gravid uterus.
Prerequisites: $E, M, R, D M S O 100$
200 GENERAL SONOGRAPHY II ABDOMEN, WINTER 3(3-0)
Intermediate to advanced identification and interpretation of anatomy and pathology of the abdomen, venous system and small parts.
Emphasis will be on abnormal anatomy/pathology with hepatic and renal transplant.
Prerequisites: $E, M, R, D M S O 100$, DMSO101, DMSO102,
DMSO103, DMSO103

## 201 GENERAL SONOGRAPHY II OB/GYN, WINTER

A continuation of the DMSO 102. Intermediate to advanced identification of an interpretation of cross sectional anatomy and pathology of the female pelvis and fetal and placental development. Prerequisites: $E, M, R$, DMSO101, DMSO102, DMSO103, DMSO104

## 202 SONOGRAPHY LAB APPLICATIONS II, WINTER

A continuation of DMSO103, with lab applications in general abdominal, small parts and $\mathrm{OB} / \mathrm{GYN}$ sonographic cross sectional anatomy and pathology demonstrated in the transverse, longitudinal and coronal planes.
Prerequisites: $E, M, R$, DMSO101, DMSO102, DMSO103, DMSO104

## 203 SONOGRAPHIC PHYSICS I, FALL

3(3-0)
The fundamental principles of acoustical physics; how sound in produced, manipulated and reacts with various mediums. Discussion and mathematical problem solving will be stressed in this course. Prerequisites: E,M,R, DMSO101, DMSO102, DMSO103, DMSO104

204 CLINICAL EXPERIENCE B, WINTER
3(0-24)
Second in a five-semester sequence of clinical application involving intermediate scanning techniques including trauma and critical care patients, with imaging related to abdomen, pelvic, small parts and gravid uterus.
Prerequisites: $E, M, R, D M S O 101, D M S O 102$, DMSO103,
DMSO104

## 213 SONOGRAPHIC PHYSICS II, WINTER

Focus will be a review of the Doppler Effect, in addition to fluid dynamics, hemodynamics, harmonics, artifacts and developing a quality assurance program.
Prerequisites: $E, M, R, D M S O 224$

## 214 CLINICAL EXPERIENCE C, SUMMER

Third in a five semester seqence of clinical application involving advanced scanning techniques including trauma and critical care patients with imaging related to abdomen, pelvic, small parts and gravid uterus.
Prerequisites: $\mathrm{E}, \mathrm{M}, \mathrm{R}, \mathrm{DMSO} 200, \mathrm{DMSO201}, \mathrm{DMSO202}$,
DMSO203, DMSO204
224 CLINICAL EXPERIENCE D, SUMMER, FALL
5(0-40)
The fourth in a five-semester sequence of clinical application. Students will be expected to perform completed exams within departmentally allowed timeframes. Introduction to peripheral vascular scanning as time allows.
Pre-requisites: $E, M, R, D M S O 214$

## 230 INTRODUCTION TO VASCULAR SONOGRAPHY \& LAB APPLICATIONS

Introduction to non invasive vascular scanning with focus on terminology, basic anatomy, generic protocols and enhanced lab applications.
Prerequisites: $E, M, R$, DMSO224

## 234 CLINICAL EXPERIENCE E FALL

The final in a five-semester sequence of clinical application. Students will be expected to perform advanced exams within departmentally allowed timeframes. Introduction to peripheral vascular scanning as time allows.
Prerequisites: $E, M, R, D M S O 224$

## 240 SONOGRAPHIC REGISTRY REVIEW

This course provides the student with review and self-examination in preparation for the American Registry of Diagnostic Medical Sonography Examinations.
Prerequisites: E,M,R, DMSO213, DMSO230, DMSO234

## DRAFTING \& DESIGN (DRAF) <br> 102 MACHINE DRAWING, WINTER

In this course, instruction will focus on mechanical concepts and the use of CAD to generate drawings and projects. Units of instruction will include sectional views, auxilary views, threads/fasteners, weldments, advanced dimensioning/part tolerancing, geometric dimensioning and tolerancing, working drawings, assembly drawings and exploded views.
Prerequisites: ENGR103 or permission of instructor.

## 201 TOOL DESIGN I, WINTER, SPRING

4(2-4)
A course concerned with the theory, principles and techniques for the design of cutting tools, jigs and fixtures and related tooling. The use of current ANSI standards will be applied to all designs. The use of on-line, part libraries, handbooks and various catalogs will be used. Students will construct all working and assembly drawings for their designs and be able to defend their design intent.
Prerequisite: ENGR103

## 202 TOOL DESIGN II, WINTER

Theory and practice of designing metal presswork dies, plastic injection molds or plastic compression molds. Students design and build individual designs. Course must be taken concurrently with MACH 220. May be offered in alternate formats. Prerequisites: E, M, R, ENGR 103, DRAF 102, MACH 110

## 203 DESCRIPTIVE GEOMETRY, WINTER

Comprehensive study of combinations of points, lines, planes, injections, true sizes and shapes of plane areas, tangent planes measurement of angles and development of surfaces.
Prerequisites: ENGR 103

## 205 ARCHITECTURAL DRAWING, WINTER

A course to acquaint the students with an understanding of the architectural and design professions along with the construction process so that they may intelligently transpose design thought into a pictorial drawing that can be used to build a physical reality. Prerequisites: ENGR 103

## 207 CAD-MECHANICAL DESIGN, WINTER <br> 3(1-4)

Students will learn the basics of 3D parametric solid part modeling and detailing using the latest Autodesk Inventor software. Students will also learn to create a rapid prototype part in this course.
Prerequisite: ENGR 103

## 208 CAD-MECHANICAL DETAILING, SPRING

Detailed engineering drawings from 3-dimensional part database information. Dimensioning, layering and hatching routines learned. Students modify detailing menus and plot constructions on drum plotter.
Prerequisite: DRAF 207

## 211 MACHINE DESIGN, WINTER

3(1-4)
Exit level course engages student in development of mechanical devices. Students involved with engineering of machinery and designing of mechanisms, components and analysis of a project. Student projects from written proposal, designing a device to achieve solution, engineer components with team/group concepts, detail needed drawings and compose final written summary. May be offered in alternate formats.
Prerequisites: ENGR 103, DRAF 102

## EARLY CHILDHOOD EDUCATION (ELCH)

*These courses are not applicable to a program in Elementary Education

## 110 INTRODUCTION TO EARLY CHILDHOOD EDUCATION FALL, WINTER, SUMMER

This course serves as an introduction to early childhood education.
During this class, settings where children age six weeks to twelve years receive care and education will be examined. Factors such as quality, licensing, and accreditation will be addressed. Also included will be ways in which social, emotional, physical, cognitive, and language development are supported in developmentally appropriate programs.
Prerequisite: $R$

## 111 EARLY CHILDHOOD LEARNING ENVIRONMENTS WINTER, FALL

This course explores how space and environments facilitate the implementation of goals in programs for infants, toddlers, preschoolers and school-agers (in before-and after-school programs) in a variety of settings. Within the context of environments, materials and equipment will also be explored.
Opportunities to assess existing environments will be included. Prerequisite: $R$

## 112 CURRICULUM PLANNING FOR YOUNG CHILDREN, FALL, WINTER SPRING

This course will explore developmentally appropriate practice and the learning and developmental theories upon which it is based. Students will learn how to plan and implement curriculum that supports cognitive and language development. They will be responsible for planning activities, implementing them with a group of children and evaluating their effectiveness. Intergration of learning through a theme or project approach will also be addressed.
Prerequisite: $R$

## 113 GUIDE YOUNG CHILDREN'S SOCIAL DEVELOPMENT, WINTER 3 (3-0)

This course explores specific strategies and methods that guide children's social development and their behavior. The ultimate goal is to promote growth in internal self-control. Students will learn techniques for listening and talking to children, guiding children's problem solving and choices, and disciplining for inappropriate behavior. Weekly field experiences with children will provide opportunities to use the strategies that are presented. This course is not applicable toward elementary education certification.
Prerequisites: $E, R$
210 CURRICULUM PLANNING FOR YOUNG CHILDREN II, FALL 3(3,0)
This course is a continuation of Curriculum Planning for Young Children I. Students will learn how to plan and implement curriculum that supports creative, social, emotional, and physical development. The role of play in a child's development will be explored. Students will also gain knowledge of methods for documenting children's growth for use in planning and informing parents of their child's progress. This course is not applicable toward elementary education certification.
Prerequisites: $E, R$

## 211 DIVERSITY IN EARLY CHILDHOOD EDUCATION, FALL

 $3(3,0)$This course introduces students to anti-bias curriculum and setting up an anti-bias clasroom environment. Discrimination issues in all areas, including ethnicity, religion, gender, economic class, age, ability, and sexual preference will be addressed. The student will examine their own attitudes and stereotypes and learn how to create an environment where differences are appreciated and valued and confident self identities developed. Opportunities will be given to learn about equipment, materials and curriculum that will support such an environment. This course will also look at ways to help children stand for oneself and take action in unjust situations. This course is not applicable toward elementary education certification. Prerequisites: $E, R$

## 212 ADMINISTRATION OF EARLY CHILD PROGRAMS, WINTER

This course addresses the administrative responsibilities of operating an early childhood program. Topics that are addressed include developing a program philosophy and budget, choosing a site and designing the environment, hiring and supervising staff, planning curriculum, and involving parents. Students will interact with a program administrator to better understand that role and work in groups to design a model program. This course is not applicable toward elementary education certification.
Prerequisites: $\mathrm{E}, \mathrm{R}$
213 CURRENT ISSUES IN EARLY CHILDHOOD, WINTER 3(3-0) This course explores current issues in the field of early childhood and assists students in forming research-based responses to these issues. Current topics that will be addressed include gender issues, media and technology, child abuse and neglect, working with a diverse population of families, quality in childcare, kindergarten readiness, and recent brain research. Students will also learn strategies for advocating on critical issues that affect young children and their families. This course is not applicable toward elementary education certification.
Prerequisites: $E, R$

## EMERGENCY MEDICAL TECHNICIAN (EMT)

162 BASIC EMERGENCY MEDICAL TECHNICIAN FALL, WINTER

FEE, 8(6-6)
Entry-level course in emergency medical services. Teaches patient assessment, access, stabilization and treatment of patients, communication basics and transportation considerations. 32 hours arranged clinical time required. Lab time includes 8 Saturdays.

## ENERGY (ENGY) <br> 100 NUCLEAR INDUSTRY FUNDAMENTALS CONCEPTS FALL, WINTER

This course introduces fundamental concepts used throughout the nuclear industry as an integral part of daily operations. Topics include: Human Performance Enhancement (HPE) fundamentals; an introduction to the Systematic Approach to Training (SAT); conduct of On-The-Job Training (OJT) and Task Performance Evaluation (TPE); Foreign Material Exclusion (FME); and an overview of the FirstEnergy Nuclear Operating Corporation (FENOC) safety manual. Pre-requisites: $M, R$

## 120 ENERGY PLANT DRAWINGS, FALL, WINTER

This course covers the use of and relationship among typical drawings found at a nuclear power plant. Topics include using mechanical, electrical, and isometric drawings; the information contained in the lead sheet of a set of drawings; the use of notes and legends; standard symbology used in engineering drawings; and the use of various tpes of drawings together in order to perform work, locate components, or use for other typical applications. Prerequisites: $M, R$ or ENGY 100 (can be taken concurrently)

## 200 REACTOR PLANT MATERIALS, FALL, WINTER

3(2-2)
This course provides students with an understanding of the various materials used in the construction and operation of a nuclear power plant. Topics include metals and alloys; effect of environment, process fluid type, and radiation on the selection of materials; an overview of fracture mechanics and brittle fracture; design margin; and hazards associated with reactor plant materials.
Prerequites: $M, R$, or CHEM 101 and ENGY100

## 205 ENERGY FIELD EXPERIENCE

2(0-30)
This field experience is a planned, work activity, which is designed to introduce the student to the primary technical areas within a nuclear power plant. During the internship, students will have introductory instruction in the general operations of a nuclear power plant. They will then experience the various technical areas by having two-week rotations through at least three different technical departments at the power plant. This will help the student select possible career paths for full-time employment upon graduation.
By permission of Engineering Production Technology program coordinator or department chair, MATH100 or MATH1 10, ENGY100, ENGY120, working towards an Energy Technology degree with completion of at least 10 credits, minimum 2.0 GPA, students must be able to pass background and drug tests to be employed in a power plant.
Prerequisites: $M, R$, or see course description.

## 210 RADIATION DETECTION \& PROTECTION, FALL, WINTER

This course presents the theory, application detection and shielding of the various types of radiation. It also covers detection devices such as typical survey meters, core power detectors and personnel monitoring devices. The course will also discuss how exposure to radiation can be minimized and the biological impact of radiation.
Prerequisites: $M$, $R$, or ENGY205 counters, liquid and solid scintillation, semiconductor) and their uses, statistics of radioactive decay, systems for radiation detection (NIMBIN systems, preamplifiers, amplifiers, single channel analyzers, multi-channel analyzers), experimental design and measurement, data reduction. Laboratories will include measurement of radioactive decay, measurement of radiation attenuation, utilization of systems for alpha, beta and gammaradiation counting and spectroscopy. Prerequisites: $M, R, E N G Y 210$

## 225 REACTOR THEORY, SAFETY \& DESIGN SYSTEMS FALL, WINTER

This course provides an understanding of the principles of reactor theory, including the fission process; the neutron life cycle; the concepts of sub-critical multiplication, criticality and reactivity; thermal limits and their importance to operation, the functions and construction of fission product barriers; the practical application of the concepts of defense in depth and redundancy; and the roles of the various employees in reactor safety. It also introduces the concepts of radiation, radioactivity and half-life which are core concepts for any course of study involving nuclear power plants.
Pre-requisites: $M, R$, or ENGY100 and ENGY1 20

## 230 THERMO-FLUID SCIENCES

3(3-0)
This course presents basic concepts of thermodynamics, heat transfer and fluid dynamics as they apply to power plant applications. It covers the topics of energy, entrophy, thermodynamic cycles, heat transfer, and fluid dynamics. The course also discusses the basics of important pieces of equipment such as turbines, heat exchangers, pumps and valves.
Prerequisites: $M, R$, or MATH1 10

## 233 DOSIMETRY. FALL, WINTER

Radiation biology, radiation effects on simple chemical systems, biological molecules, cell, organisms and humans. Stochastic vs. deterministic effects, units of exposure, dose and dose equivalent, external dosimetry, internal dosimetry, control of external and internal exposure, detector and instrumentation systems for measuring dose.
Prerequisites: M, R, ENGY210, ENGY223

## 235 POWER PLANT COMPONENTS

This course introduces students to fundamental components and pieces of equipment that are used throughout electrical power generating facilities such as pumps, valves, heat exchangers, motors, and generators. It will cover the purpose, construction, theory of operation, and typical maintenance requirements of these devices. Prerequisites: $M, R$, or ENGY230

## 240 CAPSTONE \& CASE STUDY IN ENERGY TECHNOLOGY

This is a capstone course that will utilize topics that were covered throughout the curriculum. A large portion of the course will examine case studies from the nuclear power industry. It will also examine case studies of incidents from other industries. The course will discuss precursors to poor decision making and how the proper use of human performance enhancement (HPE) and event free tools can minimize the risks of accidents.
Prerequisites: $M, R$, or ENGY205

249 SAFETY RESPONSE, FALL, WINTER
3(2-2)
Practical applications and demonstrations of radiation protection and health physics. Radiological survey \& analysis instruments, radiation monitoring systems, sample collection equipment, calibration sources and equipment, radiological protection standards, contamination control, monitoring of radiological work, radiological incident evaluation and control, decontamination, radioactive materials control, environmental monitoring.
Prerequisites: $M, R$, ENGY223, ENGY233
270 MECHANICAL OPERATIONS, FALL, WINTER 3(2-2)
Topics include the basic concepts of thermodynamic, heat transfer and the principles of fluid flow.
Prerequisites: $M, R$, ENGY225, ENGY235

## 274 ELECTRICAL \& HVAC OPERATIONS, FALL, WINTER

This course covers the basic operation of systems associated with nuclear power plant. It also describes basic construction, application, and operation of basic power plant components.
Prerequisites: $M, R, E N G Y 270$

## 278 OPERATION OF POWER PLANT COMPONENTS

 FALL,WINTERThis course covers reactor plant safety design and operation. Basic reactor startup, shutdown, and emergency procedures and why those procedures are written are also covered. Review of past reactor accidents and events. Includes practical laboratory that prepares the student to fulfill the role of Nuclear Equipment Operator. Laboratory will cover practical operating procedures in valve operation, breaker operation, placing equipment on and off of service, lubrication, pump operation, air compressors, diesel engines, and other equipment. Prerequisites: $M, R$, ENGY270, ENGY274

## ENGINEERING (ENGR)

## 103 BEGINNING ENGINEERING DRAWING, FALL, WINTER

 Introductory technical drawing course which studies lettering, geometric construction, sectional views, dimensioning techniques, Basic 2D CAD and pictorials. Drawing skills and knowledge gained by student through exercises including text assignments, handout assignments and chapter tests. Students learn to produce and evaluate blueprints.Prerequisites: $E, M, R$

## 205 DESCRIPTIVE GEOMETRY, WINTER

Problems combining point, line and plane, intersections, developments, warped surfaces and tangent planes.
Prerequisite: ENGR 103

# ENGLISH (ENGL) <br> 091 ENGLISH FUNDAMENTALS 

FALL, WINTER $\mathbf{4 ( 4 - 0 )}$
Introduces the building blocks of college composition. Primary attention given to creating well-organized paragraphs developed with complete sentences using Standard English. Attention is also given to the closely related activities of critical reading and thinking. Prerequisite: Assessment Placement

## 095 FOUNDATIONS OF COLLEGE READING \& WRITING FALL, WINTER, SPRING, SUMMER <br> Develops critical thinking, reading and writing skills necessary to succeed in college. Primary focus will be learning and applying reading and writing processes to enhance communication. <br> Prerequisites: Assessment Placement

## 101 ENGLISH COMPOSITION,

## FALL, WINTER, SPRING, SUMMER

First course in two-semester English sequence focuses on expository writing and closely related activities of critical reading and thinking. Primary attention given to formal elements of short essays based upon or incorporating documented source material. (This sequence can be completed by taking either ENGL 102 or 103).
Prerequisites: $E, R$

## 102 ENGLISH COMPOSITION,

FALL, WINTER, SPRING, SUMMER
Extension and intensification of elements of expository writing and critical reading and thinking covered in ENGL 101. Particular emphasis given to formal, stylistic and rhetorical considerations and techniques involved in developing longer critical essays that incorporate documented evidence from broad range of source materials.
Prerequisite: ENGL 101

## 103 REPORT WRITING,

FALL, WINTER, SPRING, SUMMER 3(3-0)
Helps students write with greater skill, confidence and effectiveness on job. Writing assignments develop ability to analyze specific audiences, purposes and situations and to use appropriate content, organization, style, form and format. Writing assignments include job application letter and resume, summary, process explanation, proposal, various short reports, research report and formal report. Either ENGL 102 or ENGL 103 in addition to ENGL 101 will fulfill English Composition requirements.
Prerequisite: ENGL 101

## 201 GENDER STUDIES, ON DEMAND

Explores the relationship between self-definition and gender expectations through drama, fiction, poetry, and non-fiction; examines process of selfhood and influence of culture, and analysis of narrative form and gender expectations.
Prerequisites: $E, R$

## 203 MASTERPIECES OF ENGLISH LITERATURE I

 ON DEMANDExamples of the major types of English literature are studied. The study focuses on appreciation of thought and expression. The work begins with the Anglo-Saxon period and ends with the eighteenth century. Literary types studied include the epic, the ballad, the tale, the allegory and the play.
Prerequisites: $E, R$

## 204 MASTERPIECES OF ENGLISH LITERATURE II

 ALTERNATE YEARSStudy of English literature of the Romantic, Victorian, and Modern eras from 1750 to the present. Representative authors' works read and evaluated to understand background and impact, characteristics and aesthetic value, and how they represent their times.
Prerequisites: $E, R$

## 205 INTRODUCTION TO SHAKESPEARE, WINTER

Shakespeare's greatest plays and a selection of his sonnets are read intensively and discussed. The universality of Shakespeare's thought will be emphasized, as will the qualities that make his work applicable to the modern day. For instance, characterization will be stressed more than plot. The course will lead to a greater understanding and appreciation of Shakespeare's writing. Prerequisites: $E, R$

## 208 LITERARY INTERPRETATION, FALL, WINTER, SPRING

Study of literature to develop sensitivity and skill in critical interpretation of poetry, drama, and prose fiction. Includes characteristics of different literary genre, their analysis, and increased reading and interpretation skills.
Prerequisites: $E, R$

## 209 AMERICAN NOVEL (ON-DEMAND)

Major American novels since 1850 in terms of setting,
characterization, plot, tone, point of view, theme, imagery,
symbolism and style. Social, historical, psychological and intellectual significance of works are considered. Novels studied include selection of works by authors from 1850 to present.
Prerequisites: E, R

## 210 AMERICAN LITERATURE TO 1865, FALL

Study of the literature of pre-American revolution texts to the Civil War. Emphasis on the discourse of liberty and conquest, and the development of an American voice. Examines American literature in terms of cultural, historical and intellectual roots. Emphasis also on the issues of race, gender and class along with study of writings that reflect major literary and social movements.
Prerequisites: $E, R$

## 211 AMERICAN LITERATURE 1865 TO PRESENT WINTER

Study of major elements of American Literature from the Civil War to the present. Emphasis on origins and nature of modern literature. Examines American literature of period in terms of cultural, historical, and intellectual roots. Study of writings which reflect major literary and social movements.
Prerequisites: $E, R$

## 214 CHILDREN'S LITERATURE, FALL, WINTER

Folk and fairy tales, poetry, mythology, realistic fiction and minority group literature appropriate for children. Emphasis on selection and presentation of literature appropriate for children of preschool age through junior high level.
Prerequisites: $E, R$, ENGL 101

## 215 POETRY (ON-DEMAND)

3(3-0)
Appreciation and understanding of poetry. Study of important aspects of a poem: images, figures, symbols, rhythm, sounds and tone. Emphasis on twentieth-century poetry. Recommended for English majors.
Prerequisites: $E, R$

216 LITERATURE OF BLACK AMERICA WINTER 3(3-0)
Fiction and non-fiction literary works by black American authors (narratives, short stories, essays, poems, speeches, memoirs, plays and novels). These works, from the heritage of black Americans, are part of American literary heritage. Course will feature a thematic or special topic selection of works by a variety of recognized authors. Prerequisites: $E, R$

## 217 CREATIVE WRITING FALL, WINTER

3(3-0)
Imaginative writing, i.e., writing of original poetry, fiction, drama, and creative non-fiction (memoir). Study and application of specific techniques in each genre. Conducted on a workshop basis. Students expected to produce a portfolio of finished pieces in the four genres. Prerequisites: $E, R$

## 220 CONTEMPORARY FICTION, ON DEMAND

Central themes and fictional approaches evident in contemporary fiction.
Prerequisites: $E, R$

## ENGLISH AS A SECOND LANGUAGE (ESLA)

084 ENGLISH AS A SECOND LANGUAGE I, ON DEMAND

4(4-0)
First level in a three-tiered English-as-a-Second-Language (ESL) sequence designed to help non-English speakers increase their English proficiency. Emphasis is on specific language skill acquisition through vocabulary development, basic level oral/listening skills, and English grammar. Prerequisite: Assessment Placement

## 085 CONVERSATIONAL ENGLISH AND PRONUNCIATION

Course will help students enhance their ability to communicate in spoken English and will be taught in the standard American English dialect. Students will learn correct pronunciation and articulation of English language sounds and accent reduction. Spontaneous conversation, oral exercises, listening and thinking in the English language will be stressed. Both connotative and denotative forms of the language will be addressed. Course work is focused on verbal communication skills.

## 086 ENGLISH AS A SECOND LANGUAGE II, ON DEMAND

4(4-0)
Second level in a three-tired English-as-a-Second-Language (ESL) sequence designed to help non-native English speakers increase their English proficiency. Intermediate level students develop a greater understanding of English grammar, increase their high frequency vocabulary, and improve listening/oral communication skills.
Prerequisites: Assessment Placement

## 088 ENGLISH AS A SECOND LANGUAGE III, ON DEMAND

4(4-0)
Third level in a three-tiered English-as-a-Second-Language (ESL) sequence designed to help non-native English speakers increase their English proficiency. Advanced level students receive extensive practice in oral/listening skills, standard written English grammar, and college level vocabulary.
Prerequisites: Assessment Placement

## FIRE SCIENCE (FISC)

102 FIREFIGHTER II
Course includes basic fire fighting skills while utilizing tools and equipment commonly used by municipal fire departments. Hazardous Materials Operations (24 hour) level training is a required component.

IMPORTANT NOTE: The current Fire Science curriculum is offered as a career advancement program for the already certified volunteer or career firefighter. The program can recognize a limited number of training certifications issued by the State of Michigan and the State of Indiana.
Prerequisite: Corequisite: None

## 110 FIRE PREVENTION

This course will introduce students to an important function of any progressive fire department - fire prevention. Major topics include fire prevention inspection techniques, the importance of code enforcement procedures, and developing public fire education programs.
Prerequisite: Michigan or Indiana Firefighter II and Haz-Mat Operations certification.

## 111 BUILDING CONSTRUCTION

Students will explore the methods and materials used to construct buildings, how the design and engineering of a structure can influence smoke and fire travel, and how the structural integrity of a building is affected by fire. The safety of building occupants and firefighters is emphasized.
Prerequisite: Michigan or Indiana Firefighter II and Haz-Mat Operations certification required.

## 112 FIRE SERVICE TACTICS

This course will examine modern firefighting techniques used to effectively mitigate a variety of incidents. Students will review different tactics related to general and specific fire situations. It is designed to prepare firefighters and fire officers to successfully execute strategical assignments from incident managers.
Prerequisite: Michigan or Indiana Firefighter II and Haz-Mat Operations certification required.

## 210 FIRE CAUSE DETERMINATION

Firefighters and fire officers will learn how to determine the origin and cause of a fire. Identifying and preserving evidence, recognizing when the assistance of a more highly trained investigator is needed, and courtroom procedures will be discussed.
Prerequisite: Michigan or Indiana Firefighter II and Haz-Mat Operations certification.

## 211 INSTRUCTIONAL TECHNIQUES

3 (3-0)
This course is a comprehensive approach to the basics of instructing and presenting. Students will study characteristics of adult learners, learn to identify training needs, develop outlines, and make presentations in class. The operation of audio-visual equipment will be demonstrated.
Prerequisite: Michigan or Indiana Firefighter II and Haz-Mat Operations certification.

## 212 INCIDENT MANAGEMENT

The emphasis of this course is to provide firefighters and fire officers with the knowledge and skills necessary to manage incident operations. Classroom activities will focus on recognizing incident priorities and the ability to manage fire service personnel, equipment and other resources.
Prerequisite: Michigan or Indiana Firefighter II and Haz-Mat Operations certification. FIRE 112 is recommended.

## FOREIGN LANGUAGE (FORL)

## SELF-INSTRUCTIONAL LANGUAGE PROGRAM

The following are National Association for Self-Instructional Language Program courses addressing the needs of beginning students in various languages. Courses concentrate on functional communication with emphasis on outcome-based goals such as being able to speak in basic sentence patterns, ask questions, engage in telephone conversations, make requests, give orders, etc., in situational introductions of reality. Communication is emphasized; grammar is introduced to support this process. Permission required from program coordinator before registering for these classes. Each course has a separate fee.

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> Elementary Mandarin Chinese I 4 cr. hrs.
> Elementary Mandarin Chinese II 4 cr. hrs.
> Elementary Polish I
> Elementary Polish II
> Beginning Russian I
> Advanced Beginning Russian I
> Beginning Russian II
> Advanced Beginning Russian II
> Elementary Russian I
> Elementary Russian II
> Beginning Japanese I
> Advanced Beginning Japanese I
> Beginning Japanese II
> Advanced Beginning Japanese II
> Elementary Japanese I
> Elementary Japanese II
> Beginning Italian I
> Advanced Beginning Italian I
> Beginning Italian II
> Advanced Beginning Italian II
> Elementary Italian I
> Elementary Italian II
> Elementary Arabic I
> Elementary Arabic II
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4(4-0)
101 ELEMENTARY FRENCH I, FALL
For students with limited background in modern foreign languages.
Basic grammatical principles, elementary conversation, simple writing and dictation, some discussion of culture and geography of France.
Additional work with tapes or CD'S is required.
Prerequisites: $E, R$

## 102 ELEMENTARY FRENCH II, WINTER

Continuation of FORL 101. Basic grammatical principles; conversation of more advanced level, continued writing, dictation and cultural study. Continued use of tapes or CD'S required.
Prerequisites: $E, R, F O R L 101$

121 ELEMENTARY SPANISH I, FALL
4(4-0)
For students with limited or no background in modern foreign languages. Basic grammatical principles, elementary conversation and simple writing. Some additional work with tapes or CD's. Culture and geography of Spanish-speaking countries.
Prerequisites: $E, R$

## 122 ELEMENTARY SPANISH II, WINTER

4(4-0)
Continuation of FORL 121. Study of basic grammatical principles is completed with continued conversation, writing, dictation and cultural study.
Prerequisites: $E, R, F O R L 121$
123 SPANISH FOR THE WORKPLACE, FALL, WINTER 4(4-0)
This course offers an introduction to the Spanish language with particular emphasis on applying acquired knowledge within the realm of the workplace.
Prerequisistes: None

## 124 SPANISH FOR THE WORKPLACE II FALL, WINTER <br> 4(3-1)

This course is a continuation of basic Spanish with particular emphasis on applying acquired knowledge within the realm of the workplace.
Prerequisites: FORL 123 or two years of high school Spanish or one semester of College Spanish, or permission of the insructor.

## 201 INTERMEDIATE FRENCH I, FALL

4(4-0)
Review of basic grammatical functions, advanced conversation and more writing, reading of selections from contemporary writers. Classes may be conducted in French.
Prerequisites: E, R, FORL 102 or successful completion of at least two years high school French

## 202 INTERMEDIATE FRENCH II, WINTER

4(4-0)
Continuation of FORL 201. Further emphasis on ability to read, write and converse in French.
Prerequisites: $E, R, F O R L 201$

## 221 INTERMEDIATE SPANISH I, FALL

4(4-0)
Review of basic grammatical functions, more detailed writing and advanced composition. Reading of selections from Spanish authors. Classes may be conducted in Spanish.
Prerequisites: $E, R$, FORL 122 or successful completion of at least two years high school Spanish

222 INTERMEDIATE SPANISH II, WINTER
4(4-0)
Continuation of FORL 221. Emphasizes ability to speak, read, and write in Spanish.
Prerequisites: $E, R, F O R L 221$

## 251 ADVANCED ORAL AND WRITTEN SPANISH,

 (ON-DEMAND)Concentration on improvement in written and oral expression in Spanish based on selected readings in modern Spanish literature. Lectures, discussion, resumes, student presentations and short papers in Spanish, with extensive and intensive reading assignments.
Classes conducted in Spanish.
Prerequisites: $E, R, F O R L 222$ or equivalent

## GEOGRAPHY (GEOG) 102 ELEMENTS OF PHYSICAL GEOGRAPHY

## FALL, WINTER

Includes study of planetary relations, atmosphere, air masses, climates, water resources, landforms, soils and vegetation. Demonstrates basic relationship among these topics. Impact of human activities on environment emphasized. Laboratory work integral to course and used to reinforce important topics. Transfers as science (Area III-General Education) or major/minor credit to Western Michigan University.
Prerequisites: $E, R$

## GRAPHIC DESIGN (GRDN) <br> 101 DIGITAL STUDIO FALL, WINTER

3 (2-4)
Introduces a working knowledge of the Macintosh computer platform as a design tool. Provides experience in industry standard software used by graphic designers including illustration, image manipulation and page layout programs. Serves as a foundation course in the use of computer technology for artists and graphic designers.
Prerequisites: $E, R$

## 110 INTRODUCTION TO GRAPHIC DESIGN FALL, WINTER

This course investigates the graphic design profession. Students engage in simulation of client pitches, participate in group critiques and brainstorming sessions, create design briefs, thumbnail sketches, mood boards and "comps". Conceptual design and client research is emphasized. Students evaluate their career goals through readings and discussion on design specialties and schools.
Prerequisites: $E, R$

## 130 DIGITAL PHOTOGRAPHY WINTER

This course advances the student in the fundamentals of digital imaging using industry standard image manipulation software and serves as a foundationcourse in the creation, use and selection of original photographic images for advertising and graphic design work.
Prerequisites: E, R, GRDN 101 or instructor's consent.

## 140 PRODUCTION SKILLS FOR GRAPHIC DESIGN WINTER,

This course emphasizes the practice of functional design by developing the student's knowledge of the production processes in graphic media. Designing a message to work effciently within the production process and on budget while employing original thought. Prerequisites: E, R, GRDN 101, GRDN 110 or instructor's consent

## 200 TYPOGRAPHY I FALL

3 (2-4)
This course is an introductory study of the typographic arts from the invention of writing through the Industrial Revolution. Emphasis will be placed on the use of type in professional communication, the art of classical typography, letterforms, basic type principles and the contribution of the printed word to humanity.
Prerequisites: $E, R, G R D N$ 101, GRDN 110 or instructor's consent

## 201 TYPOGRAPHY II WINTER

This course is a continuing study of the typographic arts in the twentieth century and the information age. Emphasis will be placed on the use of type in professional communication, the grid system, information design, international typographic style, type used in digital and other media, and the contribution of graphic design as a language for social reform.
Prerequisites: E, R, GRDN 101, GRDN 110, GRDN 200, ART 109 or instructor's consent

## 220 DESIGN STRATEGIES FALL

This course is an interdisciplinary approach to design where the student will consider a "360 degree" strategy to complex design problems in the development and maintenance of brand. Building copywriter and art director teams, working with artist, employing field experts, media selection, the use of technology, developing marketing strategies and advertising campaigns will be discussed and applied in laboratory projects. Students will devise a plan and execute designs for an interdisciplinary project.
Prerequisites: E, R, GRDN 101, GRDN 110, GRDN 140, ART 109 or instructor's consent

## 250 PORTFOLIO WINTER

3 (2-4)
This course will guide the student in presenting a portfolio based on their personal career objectives. Students will prepare for their career by researching transfer institutions or implementing a job search. Professional practice will be emphasized.
Prerequisites: E, R, GRDN 101, GRDN 110, GRDN 130, GRDN 140, GRDN 200, GRDN 201, GRDN 220, ART 109 or instructor's consent

## HEALTH (HEAL)

## 120 HEATH AND HEALH OCCUPATIONS

## FALL, WINTER

2(2-0)
Basic knowledge necessary for students interested in health or health careers. General background given in many health areas: anatomy, nutrition, vital signs and infection control are examples. Health career overview as integral part of course with opportunities to research many different occupations in health care field. Students completing this course will have good background for study of any health occupation and will be knowledgeable about what these occupations entail.

## 130 PHLEBOTOMY TECHNICIAN (ON-DEMAND) 7(5-7)

Prepares individuals to work in clinical laboratories under the supervision of the appropriate technologists. Includes health care delivery systems; medical terminology; infection control; safety; basic anatomy and physiology; legal implications of phlebotomy; specimen collection; quality assurance methods; ethics; and written, verbal and interpersonal communications. Requires 100 hours of supervised clinical practice in addition to class time.
Prerequisites: $E, M, R$

## 165 STANDARD FIRST AID AND PERSONAL SAFETY,

 FALL, WINTER, SPRING1.5(1.5-0)

Intensive course on beginning first aid that includes choking, shock, burns, wounds, poison, heat and cold reactions, bandaging, sudden illness and other emergency situations. Students receive American Red Cross or American Heart Association certification in Standard First Aid upon successful completion of course.
Prerequisite: HEAL 163 or BLS certification

166 CPR/AED, FALL, WINTER, SPRING, SUMMER 1 (1-0) The purpose of the CPR/AED for the Professional Rescuer course is to teach professional rescuers (those with a duty to act) the skills needed to respond appropriately to breathing and cardiac emergencies. CPR/AED also includes the use of automated external defibrillators, oxygen administration and airway management. American Red Cross or American Heart Association certificate issued upon successful completion of course.

## HISTORY (HIST)

## 101 HISTORY OF WESTERN CIVILIZATION I, FALL 4(4-0)

Explores evolution of Western cultural heritage from roots in the ancient world to Italian Renaissance. Examines character and achievements of ancient civilizations of Mesopotamia, Egypt, Greece and Rome. Traces rise and spread of great Western religionsJudaism, Christianity and Islam. Concludes with analysis of essential features of early and late medieval civilization, and changes wrought in European society by Renaissance.
Prerequisites: $E, R$

## 102 HISTORY OF WESTERN CIVILIZATION II, WINTER 4(4-0)

Examines developments in European world from 1500 to 1920. Begins with analysis of forces that shaped early modern society: Protestant Reformation, commercial revolution, rise of absolute monarchies and nation state, and scientific and intellectual revolution of 17 th and 18 th centuries. Explores impact of two upheavals, French Revolution and Industrial Revolution, on events and ideologies of 19th century. Among topics considered are growth of liberalism, socialism, Marxism, nationalism and scientific secularism, and their social and political consequences. Study of causes and effects of World War I.
Prerequisites: $E, R$

## 201 AMERICAN HISTORY, FALL, WINTER

3(3-0)
United States history from the colonial period through the Civil War. Topics include process and problems of colonization, factors promoting independence, difficulties encountered in developing workable political structure, the process of democratization, socioeconomic change, territorial expansion and rivalries leading to Civil War. Special attention is paid to the modern legacy from America's past.
Prerequisites: $E, R$

## 202 AMERICAN HISTORY, FALL, WINTER

3(3-0)
United States history from the Civil War to the present. Topics include Reconstruction, conquest of the West, industrialization and its impact, various movements to reform America and the increasingly important role this country plays in international community. Special attention is paid to the modern legacy from America's past.
Prerequisites: $E, R$

## 204 MODERN EAST ASIA, FALL

Explores traditional cultures of China and Japan, interaction with the West in the 19th and 20th centuries, and contemporary events and conditions in both nations. Examines how traditional political systems, social structures, economic systems, and religions and philosophies were progressively modified under impact of modernization but continue to influence contemporary culture. Studies effects of Western encroachment on East-West relations in modern period. Features evolution of Communist China and Japan's imperialist experiment.
Prerequisites: $E, R$

209 WOMEN IN THE WESTERN WORLD, WINTER
Examines experience of women in selected sample of Western cultures from ancient world to modern times. Explores how societies create and modify definitions of gender-appropriate roles and behavior. Investigates how such definitions affect women as family members, workers, and participants in society. Analyzes how women respond historically to challenges and contraints of their lives and what insights past experiences and modern feminist theory offer for understanding gender issues in present.
Prerequisites: $E, R$

## 210 THE CIVIL WAR AND RECONSTRUCTION, WINTER

3(3-0)
The history of the United States Civil War and Recontruction period. Topics include the causes of the war, slavery, military history, major battles, the impact of the war on slavery, the politics of Reconstruction, and the promise and problems of a biracial South. Special attention is paid to the legacy from the Civil War and Reconstruction on 21 st-century America.
Prerequisites: $E, R$

## HONORS

## 101 HONORS BIOLOGICAL SCIENCE FALL

4(3-2)
Introduction to basic principles and concepts of biology as well as related laboratory experiences. Areas of emphasis include ecology, evolution, unity and diversity of life, molecular biology, genetics, cell biology, biotechnology and behavior. NOTE: Students with two (2) or more years of high school biology are recommended to take BIOL 111, BIOL 112, or BIOL 204.
Prerequisites: $E, R, M$
121 HONORS INTRODUCTION TO PSYCHOLOGY FALL 3(3-0) Description, understanding and control of human behavior. Two-fold aims: increase student ability to understand self and others and make more satisfactory adjustment to life and introduction to the field of Psychology.
Pre-requisites: $E, R$
141 HONORS NATIONAL GOVERNMENT FALL, WINTER 3(3-0)
Structure and operation of national government; meaning and practice of democracy, power relationships, civil rights and liberties, and American method of conducting elections. Role of citizens and their choices.
Pre-requisites: $E, R$

## 150 HONORS CALCULUS I, FALL

1(1-0)
These one-hour Honors Credit courses are open only to those students who have been admitted to the Honors Program. These courses offer additional challenges in the form of lab, or field, or library research or enrichment activities that usually are not part of the regular courses. The student and the instructor agree upon a particular program of study for the semester at the beginning of the semester. To be registered in these additional honors credit courses, the student must either have already successfully completed the regular course or must be concurrently registered in the corresponding regular course. A variety of honors credit courses will be offered each fall semester. Prerequisites: Concurrent enrollment in MATH151 or previous successful completion of MATH151. R, MATH1 28 and MATH 130 with a C or better, or MATH135 with C or better or associated placement scores(s).

## 210 HONORS HEALTH \& FITNESS, FALL

This course combines classroom experience and personal exercise. Students establish knowledge of wellness, physical fitness, CV disease, nutrition, weight management, behavior modification, stress, cancer, addiction and sexually transmitted infections. Students implement an individualized exercise program and are required to exercise two days per week in the specified fitness center. Prerequisites: None

## 241 HONORS COLLOQUIUM FALL, WINTER

The Honors Colloquium, offered every fall and winter semesters, involves an intensive study/research on a topic for that year to go along with the theme(s) of the public lectures for that year. All honors students are required to register for the Colloquium every semester they are in the Program. The Colloquium topic will be announced each year. The Colloquium incorporates open discussion of the main theme and mutual criticism of the study/research projects related to the main theme being done by the participants. The Colloquium includes attendance at the public lectures and discussion with these lecturers.

## 250 HONORS ENGLISH COMPOSITION

This course in the two semester English sequence focuses on expository writing and the closely related activities of critical reading and thinking. Primary attention is to be given to the formal elements of short essays based upon or incorporating documented source material.

## 251 HONORS ENGLISH COMPOSITION

Extension and intensification of elements writing and critical thinking covered in HONR 250. Particular emphasis given to formal, stylistic and rhetorical consideration and techniques involved in developing longer critical essays that incorporate documented evidence from broad range of source material.

## 258 HONORS LITERARY INTERPRETATION, WINTER

Study of literature to develop sensitivity and skill in critical interpretation of poetry, drama, and prose fiction. Includes characteristics of different literary genre, their analysis, and increased reading and interpretation skills.
Prerequisites: $E, R, H O N R 250$ or ENGL101

## HOSPITALITY MANAGEMENT (HOSP)

## 110 SANITATION FALL, WINTER

1(1-0)
Sanitation policies necessary to effectively operate commercial food service facility. Students successful in course will receive Educational Foundation of National Restaurant Association Certification in Applied Food Service Sanitation and Michigan State Certification. Prerequisites: $E, R$

## 111 RESPONSIBLE BEVERAGE SERVICE

This class explores the service policies and practices necessary to effectively serve alcohol in a hospitality establishment. Upon successful completion, students will receive ServSafe Certification in Applied Alcohol Service Training.

## 113 NUTRITION AND DIET THERAPY, WINTER, SPRING, SUMMER, FALL

Basic principles of human nutrition including nutrients and allowances for various ages and normal conditions. Use of diet therapy in disease and abnormal conditions. Course directed to students interested in health-related professions including nursing and dietetics.
Prerequisites: $E, M, R$
115 SAFETY AND LEGAL OVERVIEW, FALL, WINTER 2(2-0)
Course provides awareness of rights and responsibilities that law grants or imposes in the hospitality industry.
Prerequisites: $E, R$
116 MEDIA PRESENTATION TECHNOLOGY, WINTER 1(1-0)
How to use media presentation equipment for meetings in restaurants, hotels, businesses and conference centers. Provides hands-on experience with media presentation technology and equipment. Prerequisites $E, M, R$

## 117 INTRODUCTION TO MEETINGS AND EVENTS, WINTER

$2(2-0)$
Overview of the planning and implementation of meetings and events that includes types of meetings and events, site selection, marketing, food and beverage, budget, reservations and evaluation.
Prerequisites $E, M, R$ (It is advisable that student take HOSP 116 prior to this course)

## 150 INTRODUCTION TO HOSPITALITY CAREERS, FALL, WINTER

 Covers career opportunities in restaurants, hotels, institutional feeding, travel and tourism, and hospitality management for those considering the hospitality industry as career.Prerequisites: $E, R$
153 NUTRITION, FALL
Characteristics, functions and major nutrient groups and how to maximize nutrient retention in food preparation and storage. Students learn nutrient needs through life cycle and apply principles to menu planning and food preparation.
Prerequisites: $E, R$

## 200 HOSPITALITY MANAGEMENT INTERNSHIP,

 FALL, WINTER, SPRING FEE, 3(1-8) Supervised work experience integrates academic study with hospitality industry experience in hotel/motel or restaurant work site. Students work 120 hours at assigned hospitality management sites and complete 15 hours of camous class time. Students must meet with coordinator prior to enrollment.Prerequisites: $E, M, R$, HOSP 110, HOSP 115, HOSP 150, HOSP 252, students must meet with coordinator prior to enrollment.

## 201 RESTAURANT OPERATIONS, WINTER

3 (3-0)
Overview of Restaurant Operations that includes; menus, cost control, financial operations, training, staffing, equipment and product purchasing, marketing, regulations, sanitation, and customer service. Prerequisites: $E, M, R$

## 202 INTRODUCTION TO CASINO MANAGEMENT, FALL <br> 3(3-0)

 This course provides an overview of casino operations and management. Topics include: gaming trends in the United States, government regulations, staffing, credit, security, marketing, entertainment and casino games. Elective course This course may be used as a substitute for Comm 101, Hosp 253, Hosp 116 and 117. Prerequisites: $E, M, R$
## 250 FOOD PREPARATION SKILLS, WINTER FEE,

Proficiency in tool, equipment usage, standardized recipes found in commercial kitchen and learn to insure high level of guest satisfaction. Emphasis on soup, sauces, entrees, salads, fruits and vegetables. Prerequisites: $M, R$

## 251 MARKETING OF HOSPITALITY SERVICES, FALL

Marketing mix related to hospitality service sector. Students learn why marketing is a hot topic in hospitality industry. Implementation of marketing concept in competitive climate in hospitality industry is essential to a successful student.
Prerequisites: $E, M, R$
252 SUPERVISORY SKILLS AND HUMAN RELATIONS, WINTER 3(3-0) Prepares student for transition from employee to supervisor. Students evaluate styles of leadership and develop effective skills in human relations and personnel management.
Prerequisites: $E, R$

## 253 TOURISM, WINTER

Understanding of tourism, its nature, history and organization. Topics include cultural aspects, sociology, psychology and motivation, economics, forecasting demand, consumers, research and planning, and development for tourism industry.
Prerequisites: $E, M, R$

## 254 HOSPITALITY COST CONTROL SYSTEMS, WINTER 3(3-0)

Capstone course in financial control for hospitality student. Areas covered include room, food and beverage control systems, operating budget, income and cost control, menu pricing and practical application.
Co/Prerequisites: HOSP 150, E,M,R
255 HOTEL MANAGEMENT AND OPERATIONS, FALL 3(3-0) Provides knowledge of the management of flow of operations to all hotel departments. Includes finance, front office, housekeeping, maintenance, marketing, engineering, information management, security, and food and beverage. Utilizes real-world case studies that correlate management problems with problem solving techniques. Prerequisites: $E, M, R$

275 HOSPITALITY MANAGEMENT
3(3-0)
In this course of food and beverage service students will discuss and practice customer services, proper service of foods and beverages, and basic table setting and decor. Students will also learn proper use and set up of serving dishes, utensils and glassware. Basic food preparation will be introduced, as well as introduction to the service of wine, liquors, and non-alcoholic beverages. This course will also include a full glossary of culinary terms.

## HUMANITIES (HUMN)

105 AWARENESS OF THE FINE ARTS, ON DEMAND 1(1-0) Interdisciplinary study to develop awareness of interrelationships of various fine arts and investigate impact upon contemporary society from variety of perspectives. Various methods of instruction used, including independent reading or research, lecture and discussion, projects associated with field trip, or travel of recognizable educational value. If trip is major thrust of course, includes pre-trip preparation with readings, videos and written assignments and posttrip evaluation such as written assignment, journal or test.

201 INTRO TO THE ARTS, FALL, WINTER, SPRING 3(3-0) This cross-disciplinary course is intended to enhance individual critical sensibility and responsiveness to the arts. This course consists of two complimentary components: the first, an introductory survey of influential theories on criticism and on the nature of art; and the second, a survey of the distinguishing formal characteristics of major artistic media.
Prerequisites: $E, R$

## 207 INTRODUCTION TO STORY AND MEDIA, FALL 3(3-0)

Explores how nature and substance of stories humankind has used to express and define values have been shaped by various written and visual media used to communicate insights.
Prerequisites: $E, R$

## 208 INTERPRETING FILM AND FICTION, FALL

Approaches to find and test meanings in films, short fiction, novels and plays. Particular works in media considered in terms of critical literacies each requires.
Prerequisites: $E, R$
209 INTRODUCTION TO THE ART OF CINEMA, FALL 3(3-0)
Social, cultural and artistic nature and significance of motion pictures. In addition to critical exploration of current films, touch-stone films used to document historical development of cinematic techniques and genres.
Prerequisites: $E, R$

## 210 ARTS IN THE MODERN WORLD, FALL

Team-taught, cross-disciplinary introduction to major concepts, media and arts that both shape and reflect modern and post-modern culture. Prerequisites: $E, R$

211 STUDIES IN FILM ART, WINTER
Critical exploration of general concepts of genre, style, theme and technique of related films. Specific focus and films varies each semester, with emphasis indicated in class schedule.
Prerequisites: E, R, HUMN 209 or Consent of instructor

## 212 ARTS AND IDEAS I, FALL

Survey of literature and philosophical works that form Western cultural heritage. Works representative of attitudes and artistic expression of major cultural periods examined for what they reveal about values of their cultures and relevance to life in 20th century. Contributions of these cultural periods considered: early JudeoChristian religious thought and experience; philosophical insights and literary traditions of classical Greece and Rome; medieval synthesis of classical attitudes and Christianity; and culmination of these attitudes in Renaissance Humanism.
Prerequisites: $E, R$

## 213 ARTS AND IDEAS II, WINTER

3(3-0) Continuation of HUMN 212 which is not prerequisite. Contributions of these cultural periods considered: Enlightenment; Romanticism; modern and contemporary times.
Prerequisites: $E, R$

## 221 PORTRAITS OF THE ARTIST, WINTER

3(3-0)
Major concepts that define artists in terms of unique identities, social roles and responsibilities to contemporary audiences and posterity. Prerequisites: $E, R$

## 294 FIELD EXPERIENCE IN THE FINE ARTS, ON DEMAND

3(3-0)
Travel course of interdisciplinary nature where world of theatre, music, dance and visual arts explored in a metropolitan setting. Course may visit literary sites and participate in multicultural and international activities. Students assigned pre-trip readings, videos and written assignments; may complete trip journal; and have posttrip written assignment, test or other means of evaluation.

## INDUSTRIAL MAINTENANCE TECHNOLOGY (INMT)

## 109 INTRO TO WELDING, FALL, WINTER

Basic skills and techniques in oxyacetylene welding and shielded metal arc welding. Introduction to welding for maintenance welders and welding technicians. Instruction and practice in brazing, flame cutting, electrode selection and various types of welds. Techniques of welding in all positions are learned through hands on practice. Safety hazards and safe practices in oxyacetylene welding, cutting and shielded metal arc are emphasized.
Prerequisites: $M, R$

## 110 MIG/TIG WELDING, FALL, WINTER

Considers various gas metal arc welding (MIG) processes, including microwire, flux-core, innershield and submerged arc, with emphasis on metal inert gas welding. Provides extensive experience in gas tungsten arc welding (TIG). Students will demonstrate techniques of welding in MIG and TIG, in all positions, using various gauges of metal.
Prerequisites: $M, R$

## 120 BASIC HVAC, FALL, WINTER

Fundamentals of heating and compression systems used in conditioning of air and controlled spaces. Includes combustion process, heat flow, temperature measurement, gas laws and heating and refrigeration cycles and components used in systems. Introduces basic service procedures used in industry.
Prerequisites: $M, R$

## 204 BASIC HYDRAULICS AND PNEUMATICS,

 FALL, WINTER, SPRINGBasic industrial fluid power systems common to field of industrial automation. Course includes basic principles, components, standards, symbols, cylinders, intensifiers, valves, motor circuit and related electrical control.
Prerequisites: $M, R$

## 205 HYDRAULICS AND PNEUMATICS MAINTENANCE, FALL

Troubleshooting, preventive maintenance and repair methods for industrial fluid power systems common to field of industrial automation. Topics include pumps, cylinders, intensifiers, valves, motor circuits and related electrical control.
Prerequisite: INMT 204 or industrial experience

## 206 HYDRAULIC AND PNEUMATIC CIRCUITRY, WINTER

Practical hydraulic and pneumatic power and control circuitry; selection of control methods and component sizing for desired function, timing, sequence, speed and pressure requirements. Considerations such as cost, efficiency, energy consumption and maintainability with practice in connecting circuits and testing proper function.
Prerequisite: INMT 204 or industrial experience.

## 240 PREDICTIVE AND PREVENTIVE MAINTENANCE, FALL, WINTER

A comprehensive preventive maintenance program that will include: predictive maintenance, team- and individual-driven maintenance tasks, and corrective maintenance to provide comprehensive support for all plant production and manufacturing systems. This course will utilize regular evaluation of critical plant equipment, machinery and systems to detect potential problems, and develop appropriate timelines to prevent problems from occurring.
Prerequisites: E, M, R, INMT 205, ELEC 152 or related industrial experience.

## LAW ENFORCEMENT (LAWE)

## 140 INTRODUCTION TO CRIMINAL JUSTICE, FALL, WINTER

History, philosophy and mechanics of several elements that comprise criminal justice system. Related responsibilities and vocational opportunities discussed. Designed to introduce students to criminal justice system.
Prerequisites: $E, R$

## 142 POLICE ORGANIZATION AND ADMINISTRATION, FALL, WINTER

Functional divisions of organization and operation of modern police departments. Functions studied are management operations, communications, budgeting, public relations, recruiting and training. Prerequisites: $E, R$

144 CRIMINOLOGY, FALL, WINTER
Nature and development of criminal behavior. Emphasis on examination of leading theories concerning cause of crime, nature of criminal offender and treatment of convicted offenders. Public reaction to crime reviewed.
Prerequisites: $E, R$

## 250 JUVENILE DELINQUENCY AND BEHAVIOR, FALL, WINTER

Problems of juvenile delinquency, theories on juvenile delinquency, work of youth agencies, legislative involvement and new approaches to prevention of juvenile crimes.
Prerequisites: $E, R$

## 251 SEMINAR IN CRIMINAL JUSTICE AND PUBLIC SAFETY, WINTER 3(1-4)

Current problems in criminal justice and public safety area. Special issues discussed and pre-service students assigned to agencies or departments as interns for field experience. Reports required. Prerequisites: $E, R$

## 252 CRIMINAL PROCEDURE, WINTER

3(3-0)
Study of Anglo-American system for detecting, proving and punishing perpetrators of crime. Legal protection of citizens from improper searches, arrests and coerced confessions by constitution, statute and case law. Rules of evidence in assisting judicial search for truth covered.
NOTE: Only Corrections students should take this course.

## MACHINE TOOL TECHNOLOGY (MACH)

## 110 MACHINE TOOL I, FALL, WINTER

Introductory course includes theory, demonstrations and shop experience. Basics in safety, blueprint reading, layout, band sawing, machine setup, lathe work, milling machine work, surface grinding. Machine theory and machine application comply with National Institute for Metalworking Skills (NIMS) Level I Machining Skill Standards.
Prerequisites: $M, R$ or by permission of instructor

## 120 MACHINE TOOL II, FALL, WINTER

Advanced course covers metals, their composition and heat treatment, machining of threads and tapers on a lathe, milling of gears and other advanced machining and precision machining techniques. Machine theory and machine applications comply with National Institute for Metalworking Skills (NIMS) Level I and Level II Machining Skill Standards. Each student will be assessed to determine his/her starting point in the program.
Prerequisites: $M, R$ or by permission of instructor

## 129 USE OF MACHINERY'S HANDBOOK, FALL

Selected topics will enable the student to find and interpret information within the Machinery's Handbook and will provide resource information for future reference.
Prerequisites: $M, R$, MACH 110, MATH 100

## 130 PRECISION INSPECTION, FALL, WINTER

Methods of inspecting industrial products. Emphasis on measuring devices such as sine bar, gage blocks, micrometers, vernier scales, electronic comparator, and coordinate measuring machine. Students will develop skills in basic blue print reading, geometric dimensioning and tolerancing, understanding datums, and using the inch and metric systems.
Prerequisites: $M, R$ or by permission of instructor

## 140 INTRODUCTION TO NUMERICAL CONTROL (NC) COMPUTER NUMERICAL CONTROL (CNC), FALL, WINTER, SPRING

Numerically controlled machines for metal cutting. Required course for students enrolled in Machine Tool program, also recommended as introductory experience for employees attending factory training schools in future. Systems studied include microcomputer-controlled machines and CAD/CAM systems.
Prerequisites: $M, R, M A C H 110$ or by permission of instructor

## 150 INTRODUCTION TO CAM,

FALL, WINTER, SPRING, SUMMER
Introductory course which includes the basic concepts of CAM usage and progresses to Geometric definition, 2D Toolpaths, 3D Contouring and Surface Machining.
Prerequisites: $M, R$ or by permission of instructor.

## 220 PRESSWORKING OF METALS/MOLD MAKING, WINTER

3(1-4)
Principles of die and mold making. Exit-level course in conventional and CNC machining methods. Students apply knowledge learned from previous courses and construct assigned die or mold. Course must be taken concurrently with DRAF 202.
Prerequisites: $M, R, M A C H$ 110, DRAF 101, DRAF 102

## 231 CMM FUNDAMENTALS, FALL, WINTER

Advanced course that focuses on the usage of a Coordinate
Measuring Machine and its impact on industry.
Prerequisites: $M, R, M A C H 130$ or by permission of instructor.

## 241 CNC PROGRAMMING I,

FALL, WINTER, SPRING, SUMMER
2(1-2)
Second of three courses in CNC sequence and required for students in Machine Tool program. Course teaches students to program numerically controlled machine tool and machine shape called out on part print. Programs for three axis machines prepared and used to make completed parts. Students learn to select appropriate fixtures, tools, inserts, speeds, feeds and depth of cuts. Laboratory concentrates on preparation and debugging of tool path, tool application, selection of speeds and feeds, and auxiliary machine functions. Employs special features of computerized machining such as contour interpolations, absolute incremental switching, inch/metric selection and tool offsets.
Prerequisites: $M, R, M A C H 140$ or by permission of instructor

## 242 CNC PROGRAMMING II, FALL, WINTER

This the third of three course in the CNC sequence. An elective course for students in the Machine Tool Program. Content designed to provide opportunity for student to gain advance programming skills. Students will employ special advance features of computerized machining such as polar coordinate programs and special machine programming functions. All instruction pertaining to CNC machine theory and CNC machine application comply with National Institute for Metalworking Skills (NIMS) Level II and Level III Machining Skill Standards.
Prerequisites: $M$, R, MACH 241 or by permission of instructor.

## 251 2D/3D MACHINING,

FALL, WINTER, SPRING, SUMMER FEE
Advanced course with a focus on CAM concepts such as surface and 3D machining.
Prerequisite: $M, R$, MACH 150 or by permission of instructor.

## MANUFACTURING TECHNOLOGY (MANU)

## 111 MANUFACTURING PROCESSES I, FALL, WINTER

 materials processing, product development, material selection and business principles and functions as related to manufacturing. Maybe offered in alternate formats.Prerequisites: $M, R$

## 112 INTRODUCTION TO FABRICATION FALL, WINTER,SPRING,SUMMER

Students will learn to use commercially available technologies to "conceptualize, design, develop, fabricate and test" objects. The Lab features advanced computer software and contemporary tools for cutting, milling, electronics, engraving, and other processes of rapid and automated prototyping. Products and processes are typically individualized but can be developed entrepreneurially for commercial production.
Prerequisites: None

## 120 FUNDAMENTALS OF PROGRAMMABLE CONTROLLERS, FALL, WINTER

FEE, 2(1-2)
Introductory course to familiarize students with programmable controllers. Units include logic, input/output capabilities, programming and entering and editing programs.
Prerequisites: $M, R$

## 122 INTRODUCTION TO ROBOTICS, FALL, WINTER OE/OE 1(1-0)

Types of robots, axis designation, application, terminology, drive systems and control systems as related to industrial robots.
Prerequisite: $R$
123 PROGRAMMABLE LOGIC CONTROLLERS II, WINTER, 2(1-2)
Course designed to follow MANU 120. Concentrates on system maintenance and upper-level functions of programmable controllers including system maintenance and installation, peripheral operations, program control instructions and report generation.
Prerequisites: $M, R, M A N U 120$

## 130 STATISTICAL PROCESS CONTROL, WINTER

Basic statistical process control and capability analysis. Students learn how to collect data to be organized into control charts to improve process and determine process capability. Topics include prevention versus detection, causes of variation, and introduction to, construction and use of control charts.
Prerequisites: $E, M, R$

## 213 COOPERATIVE INDUSTRIAL PRACTICE

Supervised on-the-job training in approved industrial setting, which integrates students' academic study with work experience. Prerequisites: Permission of coordinator

## 214 COOPERATIVE INDUSTRIAL PRACTICE

Continuation of MANU 213.
Prerequisites: Permission of coordinator

## MATHEMATICS (MATH) <br> NOTE: Courses that have identification numbers below 100 do

 not count toward total credit hours needed to earn a Certificate or Associate Degree.
## MATHEMATICS MINI-COURSE DESCRIPTIONS, FALL, WINTER, SPRING, SUMMER

Basic mini-courses are designed to provide remedial or review work for students with deficiencies in specific areas of basic math. The seven units of Basic Mathematics (090) are paired in a variety of combinations to serve as one-credit mini-courses.

The materials covered in each of the seven units of Basic Mathematics are as follows:
WHOLE NUMBERS - representation, rounding, addition, subtraction, multiplication, division, primes, powers and roots.
FRACTIONS - definitions, equivalents, addition, subtraction, multiplication and division.
DECIMALS - representation, rounding, binary operations and applications.
RATIO AND PROPORTION - definitions and applications.
PERCENT - percents as fractions, finding a percent of a number,
fractions as percents and applications of percents.
PRACTICAL GEOMETRY - basic concepts, perimeters, circumferences and areas.

| 060 Whole Numbers and Fractions | $1(1-0)$ |
| :--- | :--- |
| 061 Whole Numbers and Decimals | $1(1-0)$ |
| 062 Whole Numbers, Ratio and Proportion | $1(1-0)$ |
| 063 Whole Numbers and Percent | $1(1-0)$ |
| 064 Whole Numbers and Practical Geometry | $1(1-0)$ |
| 066 Fractions and Decimals | $1(1-0)$ |
| 067 Fractions, Ratio and Proportion | $1(1-0)$ |
| 068 Fractions and Percent | $1(1-0)$ |
| 069 Fractions and Practical Geometry | $1(1-0)$ |
| 071 Decimals, Ratio and Proportion | $1(1-0)$ |
| 072 Decimals and Percent | $1(1-0)$ |
| 073 Decimals and Practical Geometry | $1(1-0)$ |
| 075 Ratio, Proportion and Percent | $1(1-0)$ |
| 076 Ratio, Proportion and Practical Geometry | $1(1-0)$ |
| 078 Percent and Practical Geometry | $1(1-0)$ |

## 090 BASIC MATHEMATICS,

FALL, WINTER, SPRING, SUMMER
Individualized competency-based or lecture course in basic mathematical skills. Students placed by assessment results at appropriate level at beginning of course. Proficiency at 70-percent level must be demonstrated in each unit before progressing to next unit. Basic Mathematics covers whole numbers, fractions, decimals, ratio and proportion, percent, practical geometry and/or introduction to algebra.
Prerequisites: READ 083 with a "C." or better or associated placement test score(s).

## 095 ELEMENTARY ALGEBRA,

 FALL, WINTER, SPRING, SUMMERThe course covers all topics normally taught in a one-year beginning algebra course. Topics covered: sets and numeration systems; the set of integers: multiplication and division, algebraic operations, equations; introduction to factoring; factoring techniques; basic fractional operations; addition, subtraction, multiplication and division of complex fractions; introduction to the rectangular coordinate system; systems of equations. Cannot be used to meet math graduation requirements for A.A., A.S., or A.A.S. degrees. Prerequisites: $R$, MATH 090 with " $C$." or better

## 100 APPLIED MATHEMATICS, FALL

Basic mathematics needed in occupational fields such as machine tool, electronics, industrial manufacturing, service and maintenance, etc. Topics include fractions, percent, decimals, angular measurement, square root, basic geometry, formulas and basic algebra conversions. Practice and practical applications.

## 110 TECHNICAL MATHEMATICS I, WINTER

4(4-0) Introduction to mathematics applicable to technical areas. Includes topics in dimensional analysis, problem solving, approximate numbers, trigonometry of right angle and oblique triangles, vectors, radian measure, algebra and geometry applications and metric measurement and conversion.
Prerequisites: MATH 100 or MATH 095 with "C." or better, or high school algebra

## 122 INTERMEDIATE ALGEBRA,

 FALL, WINTER, SPRING, SUMMERProvides students with sufficient algebraic knowledge and skills for success in subsequent mathematics or science courses. Brief review of four fundamental operations, real number system, factoring, fractions, linear and fractional equations and inequalities, linear and quadratic functions and their graphs, systems of equations, determinants and Cramer's rule, exponents and radicals, quadratic equations. Prerequisites: R, MATH 095 with "C." or better, or associated placement test score(s).

## 128 PRE-CALCULUS ALGEBRA, FALL, WINTER, SPRING

Prepares students for calculus. Topics include review of exponents and factoring, equations, graphs and functions, composite functions, inverse functions, exponential and logarithmic functions, systems of equations, linear programming, complex numbers, sequences and binomial theorem.
Prerequisites: R, MATH 122 with C or better, or associated placement test score(s).

## 130 PRE-CALCULUS TRIGONOMETRY, FALL WINTER <br> 3(3-0)

Fundamental concepts of trigonometry and elementary applications of results. Topics include angle measure, fundamental identities, variation and graphs of trigonometric functions, right-angle trigonometry, equations and polar coordinates. For students who intend to toke calculus, this course may be taken concurrently with MATH 128.
Prerequisites: R, MATH 122 with C or better, or associated placement test score(s).
135 PRECALCULUS ALGEBRA/TRIG, FALL,WINTER 4(4-0)
This course is designed to provide the student with basic algebraic and trigonometric concepts necessary for calculus. Topics include: real numbers, inequalities, coordinate systems, functions, polynomials, solutions of polynomial equations, exponential and logarithmic functions, trigonometry and trigonometric functions. Prerequisites: R, MATH 122 with C or better, or associated placement test score(s).

## 151 CALCULUS I, FALL, WINTER

5(5-0)
Study of calculus of single variable. Topics include limits, derivative and integral properties of algebraic and transcendental functions and elementary applications of derivatives and integrals.
Prerequisites: R, MATH 128 and MATH 130 with "C" or better, or MATH 135 with " $C$ " or better, or associated placement test score(s).

## 200 MATH FOR ELEMENTARY TEACHERS,

 FALL, WINTER4(4-0)
For students preparing to teach grades $\mathrm{K}-6$. Gives prospective teacher thorough understanding of important mathematical concepts, terminology and relationships. Helps students see how these concepts are presented to children at each grade level. Students expected to observe teaching of elementary children in actual classroom.
Prerequisites: R, MATH 095 with "C." or better, or associated placement test score(s).

## 201 CALCULUS II, WINTER

Continuation of MATH 151. Topics include analytic geometry, techniques and applications of integration, infinite series, polar coordinates and vectors in two space.
Prerequisites: R, MATH 151 with " $C$ " or better.

## 202 CALCULUS III, FALL

Calculus with multiple independent variables. Topics include threedimensional vectors, partial derivatives, multiple integrations and vector analysis.
Prerequisites: R, MATH 201 with " C " or better.

## 205 TECHNICAL MATHEMATICS II, ON DEMAND

4(4-0)
Applied course for students in engineering and industrial technologies. Includes selected topics from analytic geometry, derivatives, integrals and their applications.
Prerequisite: MATH 110 or MATH 130

## 210 GEOMETRY FOR ELEMENTARY TEACHERS, FALL, WINTER

This course explores the fundamental ideas of planar and spatial geometry. Topics include: analysis and classification of geometric figures; geometric transformations; symmetry; measurement. This course includes an introduction to the use of computers in the teaching and learning of informal geometry. This course is designed specifically to transfer Western Michigan University's elementary education program and may not transfer to other institutions. Prerequisites: R, MATH 200 with " $C$ " or better .

## 216 INTRODUCTION TO STATISTICS, FALL, WINTER, SPRING

Statistical decision-making. Topics include sampling techniques, tabular and graphical data, measures of central tendency and variability, simple probability, probability distributions (binomial, normal, $t$, chi-square and F), central limit theorem, correlation and regression, estimation, hypothesis testing, and analysis of variance. Prerequisite: $E, R$, MATH 122 with $C$ or better or equivalent

## 252 DIFFERENTIAL EQUATIONS, WINTER

4(4-0)
Ordinary differential equations. Topics include equations with variables separable, homogenous equations, exact equations, integrating factors, linear equations with constant coefficients, simultaneous linear equations and Laplace transformations.
Applications to physics and engineering.
Prerequisites: R, MATH 201 with "C" or better, or MATH 202 with " $C$ " or better.

## 265 PROBABILITY AND STATISTICS FOR ELEMENTARY/

 MIDDLE SCHOOL TEACHERS, FALL, WINTER4 (4-0)
This course explores the basic concepts of statistics and probability appropriate for elementary and middle school teachers. Topics include statistical techniques for organizing, summarizing, presenting, and interpreting data; sampling techniques; simulation methods; counting techniques; and analytic methods in probability. Graphing calculators are used to reinforce major course ideas. This course is designed specifically to transfer Western Michigan University's elementary education program and may not transfer to other institutions.
Prerequisites: R, MATH 200 with " C " or better.

## MAGNETIC RESONANCE IMAGING (MRIT)

100 INTRODUCTION TO THE MRI PATIENT, SUMMER 3(3-0) This introductory course covers the fundamentals of the MRI systems including components and hardware as well as patient care, safety and medical ethics. Topics covered will prepare the MRI student for integration within the MRI department at the clinical sites.
Prerequisites: $E, M, R$, Licensure as $R T(R), R T(N M), R T(T), R T(S)$, or RDMS or acceptance into the MRI program.

101 CLINICAL EXPERIENCE A, SUMMER
1(0-2)
A three week introductory course designed to acquaint the MRI student with their assigned clinical site. Major emphasis will be placed on professional standards and appearance, fundamental knowledge of the hardware and system components as patient safety and care in the MRI department.
Prerequisites: $E, M, R$ Licensure as $R T(R), R T(N M), R T(T), R T(S)$, or RDMS or acceptance into the MRI program.

## 102 MRI ANATOMY I, FALL

3(3-0)
This course provides the MRI student with location and function of anatomy in the axial, coronal, and sagital planes and common pathology as it relates to the structures of the head and neck. Prerequisites: $E, M, R, M R I T 100$

## 103 MRI PHYSICS I, FALL

3(3-0)
The first in a two semester course that will cover the basic principles of MRI, data aquisition, and tissue characteristics (proton spin, relaxation times, phasing and de-phasing) in image formation. Prerequisites: $E, M, R$, MRIT 100 and MRIT 101

## 104 MRI IMAGING ANALYSIS I, FALL

The first in a two semester course that supplements MRI Physics. Discussions and image analysis will focus on the neuro imaging portion of MRI with emphasis on optimal imaging and quality control Prerequisites: $E, M, R$, MRIT100 and MRIT 101

## 105 CLINICAL EXPERIENCE B, FALL

3(0-24)
The second in a four semester sequence of scanning applications and techniques for the head and neck. Additional time may be spent on spine and extremity work.
Prerequisites: $E, M, R$, MRIT101, MRIT 100

## 106 MRI ANATOMY II, WINTER

3(3-0)
This course provides the MRI student with location and function of anatomy presented in the axial, coronal and sagittal planes. Common pathology is also discussed as it relate to the structures of the spine and extremities.
Prerequisites: $E, M, R$, MRIT102, MRIT 108, MRIT 104 and MRIT 105

## 107 MRI PHYSICS II, WINTER

The second in a two semester course that provides a comprehensive overview of MRI pulse sequences, imaging parameters and image quality control.
Prerequisites: $E, M, R$, MRIT103, MRIT 102, MRIT 104 and MRIT 105

## 108 MRI IMAGING ANALYSIS II, WINTER 2(2-0)

The second in a two semester course which supplements MRI Physics. Topics covered will include advanced and pathological scanning protocols in neuro, orthopedic and special imaging procedures. Prerequisites: $E, M, R$, MRIT103, MRIT 104 and MRIT 105

## 109 MRI CLINICAL EXPERIENCE C, WINTER

3(0-24)
The third in a four semester sequence clinical application in which the student will develop competency levels in neuro and orthopedic scanning techniques.
Prerequisites: $E, M, R$, MRIT102, MRIT103, MRIT 104 and MRIT 105

## 110 MRI ANATOMY III

3(3-0)
This course provides the MRI student with location and function of anatomy presented in coronal, axial and sagittal planes. Common pathology related to chest, abdomen, pelvis and special procedures will also be investigated.
Prerequisites: E,M,R, MRIT106, MRIT107, MRIT 108 and MRIT 109

## 111 MRI CLINICAL EXPERIENCE D

3(0-40)
The final in a four semester sequence of clinical application. This course covers advanced scanning applications in cardiac and functional MRI.
Prerequisites: $E, M, R$, MRIT106, MRIT 107 and MRIT109

## 112 MRI CLINICAL EXPERIENCE E, SUMMER

5(0-40)
This course provides additional clinical experience for those students continuing on at Lake Michigan College for an Associates in Applied Science. The Course allows students to gain additional clinical experience.
Prerequistes: $E, M, R, M R I T 111$ and MRIT 110
113 MRI REGISTRY REVIEW, SUMMER
2(2-0)
This course provides the student with review and self-examination as a preparation for the certificate exam in Magnetic Resonance Imaging.
Prerequisites: $E, M, R, M R I T 110$ and MRIT 111

## MUSIC (MUSI)

All music courses involve required concert attendance.
ENSEMBLES:
101 CONCERT CHOIR, FALL, WINTER
Varied range of sacred and secular music for purpose of study and performance. Choir performs in regular concerts each semester. Opportunity for small ensemble participation. Open to all students and community members with vocal ability through audition. May be repeated for credit.

## 103 SYMPHONIC WIND ENSEMBLE-SOUTHSHORE CONCERT BAND, FALL, WINTER 2 (0-4)

Music ranging from traditional through contemporary styles. Open to all students and community members, through audition, with interest in performing concert band music. May be repeated for credit.

## 104 JAZZ BAND, FALL, WINTER

Music in all styles of jazz and rock idioms. Includes techniques of rehearsing stage band, playing of student arrangements and performance of jazz compositions, and arrangements in concert and various rock idioms. Open to all students by audition. May be repeated for credit.

## 106 VOCAL CHAMBER ENSEMBLE

A varied range of sacred and secular vocal music is covered for the purpose of study and performance. The ensemble performs in regular concerts each semester. Open to all students and community members with vocal ability through audition. May be repeated for credit.

## 108 SHOW CHOIR, FALL, WINTER

2(0-2)
Musical theatre and jazz music; open through audition. Performs regularly during semester, accompanied by small instrumental ensemble. Staging and choreography as important parts of performances. May be repeated for credit.

## CLASSROOM COURSES:

109 MUSIC APPRECIATION, FALL, WINTER, SPRING 3(3-0)
Exposure to various compositions and techniques from major periods of music history beginning with antiquity, including 20th-century contemporary works and brief look at jazz. For non-Music majors. Prerequisites: $E, R$

## 110 INTRODUCTION TO MUSIC THEORY, (ON-DEMAND)

Music notation, sight-reading, keyboard and music terminology. For students to learn fundamentals of music as well as prospective Music majors or minors who have little or no theoretical training.

## 113 VOICE CLASS, FALL, WINTER

Fundamentals of vocal production including posture, breathing and diction. Students perform in class on regular basis. Open to all students as well as Music majors and minors.

## 114 PIANO CLASS I, FALL, WINTER

2(2-0)
Beginning piano class for students with little or no prior musical experience. Focus on learning to read music as well as harmonization and transposition.

## 115 PIANO CLASS II, FALL, WINTER

The course seeks to deepen students' understanding of modern
The course seeks to deepen students' understanding of modern
society and culture through the examination of rock and roll music. The development and evolution of the music's diverse styles are explored within the context of sociological and political events. Prerequisites: $E, R$

## 190 PERCUSSION ENSEMBLE, WINTER

This course provides students with the opportunity to learn percussion techniques and literature through rehearsal and performance in a chamber setting. The repertoire is diverse, including pieces for keyboard percussion, non-pitched percussion works, jazz oriented music and compositions featuring the entire family of percussion instruments. Open to music majors and non-music majors with an interest and background in percussion. Permission of instructor required.

A study of traditional harmony through analysis and part writing including a review of fundamentals, diatonic triads in inversion, cadences and non-chord tones. For music majors and minors. Prerequisite: $E, R$, MUSI 110 with a grade of $C$ or higher. Corequisite: MUSI 114 and MUSI 164

## 163 BASIC MUSIC II

Continuation of MUSI 162. The study of diatonic and chromatic
harmony through analysis and part writing, including diatonic, and secondary 7th chords, the Neapolitan chord, augmented sixth chords, and modulation to foreign keys.
Prerequisite: $E, R$, MUSI 162 with a grade of $C$ or higher Corequisite: MUSI 115 and MUSI 165

## 164 AURAL COMPREHENSION I

1(0-2)
Sight-reading, prepared performance and improvisation of melodies using solfegge syllables, dictation, recognition of musical events, and ensemble skills. The course concentrates on diatonic melodies, simple and compound divisions of beat, intervals, and triads.
Prerequisite: Acceptance into MUSI 162
Corequisite: MUSI 114 and MUSI 162

## 165 AURAL COMPREHENSION II

A continuation of MUSI 164. Sight-reading, prepared performance and improvisation of melodies using solfegge syllables, dictation, recognition of musical events, and ensemble skills. This course concentrates on diatonic melodies, simple and compound divisions of the beat, triads and seventh chords, and harmonic dictation.
Prerequisite: MUSI 164 with a grade of " $\mathrm{C}^{\prime}$ " or better Corequisites: MUSI 115 and MUSI 163

## 185 GUITAR CLASS I

1(1-0)
Group instruction in guitar fundamentals for the student who has had little or no previous experience. The course will provide basic instruction in using the guitar as an accompanying instrument and as a solo or melody-playing instrument, and will provide the fundamentals of music reaading. The student will be required to have access to a Classical or Folk type guitar.

## 186 GUITAR CLASS II

A continuation of Guitar Class I. Instruction will be provided on bar chords, transposition, improvisation, tablature, and various strumming techniques. The student will be required to have access to a Folk or Classical type guitar.
Prerequisites: Musi 185 or permission of the instructor

## 187 HISTORY OF ROCK MUSIC FALL, WINTER

## 200 MUSIC FOR THE ELEMENTARY TEACHER FALL, WINTER

3(3-0)
Designed for elementary education majors and assuming little or no musical background, this course will develop skill in the teaching and the performing of music in the elementary classroom setting. Students will develop fundamental musical skills, organize and develop musical activities and lesson plans, as well as explore the integration of music across the curriculum and in specialized areas.
Prerequisites: $E, R$

## 213 MUSIC HISTORY I, FALL

Survey course of music in Western world from antiquity through Twentieth Century. Covers Middle Ages, Renaissance, Baroque and early Classical periods.
Prerequisites: $E, R$

## 214 MUSIC HISTORY II, WINTER

Survey course of music in Western world from antiquity through Twentieth Century. Covers later Classical period, Romantic period and Twentieth Century. American composers of Twentieth century emphasized.
Prerequisites: $E, R$

## 262 BASIC MUSIC III

A continuation of MUSI 163. A study of the principles and techniques of organization in tonal music, including fugue, binary and ternary forms, sonata, theme and variation, rondo, and one-part forms through analysis and composition.
Prerequisite: $E, R$, MUSI 163 with a grade of " $C$ " or higher Corequisite: MUSI 264

## 263 BASIC MUSIC IV

A continuation of MUSI 262. A study of the organizational techniques of 20th century music, including the extension of chromaticism in late 19th century music, impressionism, pandiatonicism, polytonality, modality, 20th century tonality, atonality, serial techniques and minimalism.
Prerequisite: $E, R$, MUSI 262 with a grade of " $C$ " or higher Corequisite: MUSI 265

## 264 AURAL COMPREHENSION III

## 1(0-2)

A continuation of MUSI 165. Sight-reading, prepared performance and improvisation of melodies using solfegge syllables, dictation, recognition of musical events, and ensemble skills. This course concentrates on chromatic melodies with modulation, changing and composite meters, and harmonic dictation.
Prerequisite: MUSI 165 with a " C " or higher
Corequisite: MUSI 262

## 265 AURAL COMPREHENSION IV

A continuation of MUSI 264. Sight-reading, prepared performance and improvisation of melodies using solfegge syllables, dictation, recognition of musical events, and ensemble skills. This course concentrates on modes, asymmetrical meters, altered chords, and interval music.
Prerequisite: MUSI 264 with a grade of " $C$ " or higher
Corequisite: MUSI 263

Instrumental students must own or have access to an instrument before enrolling in applied lessons.

## APPLIED MUSIC:

1 -credit hour lesson $=1 / 2$ hour private lesson per week requiring 1 hour daily practice.
2 -credit hour lesson $=1$ hour private lesson per week requiring 2
hours daily practice - limited to Music majors or with permission of instructor.
All Applied Music classes involve required concert attendance. Instrumental students must own or have access to an instrument before enrolling in applied lessons.

## THE FOLLOWING APPLIED MUSIC CLASSES <br> (private music instruction) <br> ARE OFFERED FALL AND WINTER

When offered, one-credit hour classes are available during the Spring and Summer sessions. Placement in class level determined by instructor.

## 100 BEGINNING APPLIED MUSIC

The following one-credit hour, Beginning Applied Music classes are individual instruction, intended for personal enrichment:

| Beginning Voice (Prerequisite: MUSI 113) | FEE, 1(0-.5) |
| :---: | :---: |
| Beginning Clarinet | FEE, 1(0-.5) |
| Beginning Trumpet, Cornet | FEE, 1(0-.5) |
| Beginning French Horn | FEE, 1(0-.5) |
| Beginning Trombone, Euphonium, Baritone | FEE, 1(0-.5) |
| Beginning Tuba | FEE, 1(0-.5) |
| Beginning Flute | FEE, 1(0-.5) |
| Beginning Oboe | FEE, 1(0-.5) |
| Beginning Bassoon | FEE, 1(0-.5) |
| Beginning Piano (Prerequisite: Music 115) | FEE, 1(0-.5) |
| Beginning Pipe/Electric Organ | FEE, 1(0-.5) |
| Beginning Saxophone | FEE, 1(0-.5) |
| Beginning Percussion | FEE. 1(0-.5) |
| Beginning Violin | FEE, 1(0-.5) |
| Beginning Viola | FEE, 1(0-.5) |
| Beginning Cello | FEE, 1(0-.5) |
| Beginning String Bass | FEE, 1(0-.5) |
| *Beginning Electric/Acoustic Guitar | FEE, 1(0-.5) |
| *Beginning Classical Guitar | FEE, 1(0-.5) |
| *(Prerequisite music 186) |  |
| Beginning Applied Harp | FEE, 1(0-.5) |

The following one-credit hour, college-level Applied Music classes require an audition or permission of instructor to qualify and include individual instruction for Music majors or highly-proficient musicians. All students required to perform a jury:

| 120 Applied Voice | FEE, 1 $(0-.5)$ |
| :--- | :--- |
| 130 Applied Piano | FEE, $1(0-.5)$ |
| 134 Applied Pipe/Electric Organ | FEE, $1(0-.5)$ |
| 140 Applied Trumpet, Cornet | FEE, $1(0-.5)$ |
| 142 Applied French Horn | FEE, $1(0-.5)$ |
| 144 Applied Trombone, Euphonium, Baritone | FEE, $1(0-.5)$ |
| 146 Applied Tuba | FEE, $1(0-.5)$ |
| 150 Applied Flute | FEE, $1(0-.5)$ |
| 152 Applied Oboe | FEE, $1(0-.5)$ |
| 154 Applied Bassoon | FEE, $1(0-.5)$ |
| 156 Applied Clarinet | FEE, $1(0-.5)$ |
| 158 Applied Saxophone | FEE, $1(0-.5)$ |
| 160 Applied Percussion | FEE, $1(0-.5)$ |
| 170 Applied Violin | FEE, $1(0-.5)$ |
| 172 Applied Viola | FEE, $1(0-.5)$ |
| 174 Applied Cello | FEE, $1(0-.5)$ |
| 176 Applied Electric Bass | FEE, $1(0-.5)$ |
| 178 Applied Acoustic/Electric Guitar | FEE, $1(0-.5)$ |
| 180 Applied Classical Guitar | FEE, $1(0-.5)$ |
| 181 Applied String Bass | FEE, $1(0-.5)$ |
| 188 Applied Harp | FEE, $1(0-.5)$ |

The following two-credit hour, college-level Applied Music classes are for Music majors and other accomplished musicians. Successful completion of one-credit hour college class in instrument or permission of instructor a prerequisite for all classes. All students required to perform a jury:

| 220 Applied Voice | FEE, 2(0-1) |
| :---: | :---: |
| 230 Applied Piano | FEE, 2(0-1) |
| 233 Applied Piano/Rhythm, Jazz, Blues | FEE, 2(0-1) |
| 234 Applied Pipe/Electric Organ | FEE, 2(0-1) |
| 240 Applied Trumpet, Cornet | FEE, 2(0-1) |
| 242 Applied French Horn | FEE, 2(0-1) |
| 244 Applied Trombone, Euphonium, Baritone | FEE, 2(0-1) |
| 246 Applied Tuba | FEE, 2(0-1) |
| 250 Applied Flute | FEE, 2(0-1) |
| 252 Applied Oboe | FEE, 2(0-1) |
| 254 Applied Bassoon | FEE, 2(0-1) |
| 256 Applied Clarinet | FEE, 2(0-1) |
| 258 Applied Saxophone | FEE, 2(0-1) |
| 260 Applied Percussion | FEE, 2(0-1) |
| 270 Applied Violin | FEE, 2(0-1) |
| 272 Applied Viola | FEE, 2(0-1) |
| 274 Applied Cello | FEE, 2(0-1) |
| 276 Applied Electric Bass | FEE, 2(0-1) |
| 278 Applied Acoustic/Electric Guitar | FEE, 2(0-1) |
| 280 Applied Classical Guitar | FEE, 2(0-1) |
| 281 Applied String Bass | FEE, 2(0-1) |
| 288 Applied Harp | FEE, 2(0-1) |

## NATURAL SCIENCE (SCIE) <br> 095 FUNDAMENTALS OF SCIENCE REASONING

FALL, WINTER, SPRING, SUMMER
4(3-2)
Provides students the opportunity to develop science reasoning skills and thought processes that are critical in all College-level science courses. Areas covered include scientific process, observations, value judgments, inferences; experimental set-up, data collection, variables; scientific communication; study techniques; problem solving, basic statistical analysis, graph interpretation, spatial relationships; measurements, metric system, estimation; and basic laboratory skills.

## NURSING (NURS) <br> 130 PHARMACOLOGY I, FALL

Nursing 130 is the introduction of basic principles of pharmacology including pharmacodynamics, pharmacokinetics, legal aspects, controlled substances, drug testing, and specific selected categories. Also included is the study of pharmacology math. Principles are based on the concepts of the role of the nurse as well as the concepts of client centered care, critical thinking, communication, accountability, and competence along the health continuum and across the lifespan.
Prerequisites: $E, M, R, R E A D 110$, BIOL 205, CIS 102, CHEM 105, and acceptance into the nursing program or permission of instructor/ coordinator.

## 135 PHARMACOLOGY II, WINTER

2(2-0)
Nursing 135 builds on Nursing 130, continuing and expanding upon concepts learned. The focus of this course is the study of selected classifications of medications and the nurse's role in administering and monitoring them. Principles are based on the concepts of the role of the nurse as well as the concepts of client-centered care, critical thinking, communication, accountability, and competence. Learning focuses on the care of the individual across the healthcare continuum and throughout the life span.
Prerequisites: $E, M$, , , READ 110, BIOL205, BIOL 206, CIS 102, CHEM 105, ENGL 101, PSYC 201, NURS 130, NURS 180, and acceptance into the nursing program or permission of instructor/ coordinator

## 180 NURSING FUNDAMENTALS, FALL

Nursing 180 is a fundamental course where students learn the philosophy of nursing, including the roles of the nurse as provider of care, manager of care, and member of a profession. Nursing uses a base of science, art, and technology to guide the student towards identifying self as an individual and nurse in the associate degree or the practical nurse role within the environment. The concepts of client-centered care, critical thinking, communication, accountability, and competence along the health continuum and across the lifespan are integrated. Students learn theoretical concepts, skills and principles basic to the care of individuals with common health problems. Beginning medical-surgical concepts are introduced.
Learning is applied by planned experiences in the classroom, nursing laboratory, and acute and long-term care facilities in the community throughout the semester.
Prerequisites: $E, M, R, R E A D 110$, BIOL 205, CIS 102, CHEM 105, and acceptance into the nursing program or permission of instructor/ coordinator.

## 185 WOMEN'S HEALTH, WINTER

4(2.4-4.8) Nursing 185 builds on Nursing 180, continuing and expanding the base of science, art and technology, guiding the student towards identifying self as an individual and nurse in the associate or practical nurse role within the environment. Concepts of client-centered care, critical thinking, communication, accountability, and competence are expanded upon. The course reinforces student understanding and adoption of the nursing roles as provider of care, manager of care, and member of profession. The learning focuses on the care of individuals along the health continuum and across the lifespan with common women's health conditions such as adolescence, childbearing experience, menopause and simple gynecological conditions. Learning is applied during 5 weeks of clinical experience in community and acute care settings
Prerequisites: $E, M, R$, READ 110, BIOL 205, BIOL 206, CIS 102, CHEM 105, ENGL 101, PSYC 201, PSYC 203 (may take currently), NURS 130, NURS 180, and acceptance into the nursing program or permission of instructor/coordinator.

186 MEDICAL-SURGICAL NURSING I, WINTER 3(1.5-4.8) Nursing 186 builds on Nursing 180, continuing and expanding concepts learned. The course reinforces student understanding and adoption of nursing roles as provider of care, manager of care, and member of a profession. Learning focuses on the care of the individual along the health continuum and across the life span with selected common medical-surgical conditions. These conditions include the perioperative experience, fluid and electrolyte imbalance, and gastrointestinal impairment. Learning is applied during four and one half weeks of clinical experience in an acute-care facility. Prerequisites: $E, M, R$, READ 110, BIOL 205, BIOL 206, CIS 102, CHEM 105, ENGL 101, PSYC 201, NURS 130, NURS 180, and acceptance into the nursing program or permission of instructor/ coordinator

## 187 MEDICAL-SURGICAL NURSING II, WINTER

## 3(1.5-4.8)

Nursing 187 builds on NURS 180, continuing and expanding concepts learned. The course reinforces student understanding and adoption of nursing roles as provider of care, manager of care, and member of a profession. Learning focuses on the care of individuals along the health continuum and across the lifespan with selected common medical-surgical conditions. These conditions include diabetes, acute and chronic respiratory impairment, and acute and chronic cardiac impairment. Clinical experience is scheduled for four and one half weeks in medical-surgical settings within the community. Prerequisites: $E, M, R$, READ 110, BIOL 205, BIOL 206, CIS 102, CHEM 105, ENGL 101, PSYC 201, NURS 130, NURS 180, and acceptance into the nursing program or permission of instructor/ coordinator.

## 190 CHILD NURSING, SPRING

The focus in this practical nursing level course is on the care of the child both in health and illness. In this class, students will use critical thinking, the nursing process, and concepts of caring in the classroom and clinical settings. Working under supervision, students will gain experience on the pediatric in-patient unit and in community agencies for seven weeks as theyapply the theory gained from nursing and other related courses.
Prerequisites: $E, M, R, R E A D 110$, CIS 102, BIOL 205, 206, ENGL 101, PSYC 201, PSYC 203, NURS 180, NURS 130, NURS 185, NURS 186, NURS 187, NURS 135, and acceptance into the nursing program or permission of the instructor/coordinator

191 ADULT NURSING, SPRING
4(2-6)
Nursing 191 builds on all previous first year courses continuing and expanding concepts learned. This course focuses on the adult client by exploring additional common conditions including cardiac, neurological, respiratory, peripheral, vascular, renal, and musculoskeletal needs of the patient, as well as blood disorders and diet therapy. Concepts of management of care at the licensed practical nurse level, critical thinking, effective communication, and competent care are developed. Clinical experience is scheduled for seven weeks in acute/long-term care settings in the community.
Prerequisites: $E, M, R ;$ READ 110; CIS 102; CHEM 105; ENGL 101; PSYC 201, PSYC 203; BIOL 205, BIOL 206, NURS 180, NURS 185, NURS 186, NURS 187, NURS 130, NURS 135, and acceptance into the nursing program or permission of the instructor/coordinator

## 192 ADVANCED MEDICAL-SURGICAL NURSING, SUMMER

This course continues the focus on the adult client by exploring common conditions including mental health, skin, endocrine, metabolic, immunologic, reproductive (male) disorders, emergency care needs, and/or geriatric involvement. Concepts of management of care at the licensed practical nurse level, critical thinking, effective communication, and competent care are developed. Clinical experience is scheduled for six weeks in acute/long-term care settings in the community.
Prerequisites: $E, M, R$, READ 110, BIOL 205, BIOL 206, CIS 102, CHEM 105, ENGL 101, PSYC 201, PSYC 203, NURS 130, NURS 135, NURS 180, NURS 185, NURS 186, NURS 187, NURS 190, NURS 191, and acceptance into the nursing program or permission of instructor/coordinator

## 280 COMMUNITY MENTAL HEALTH, FALL

4(2.3-5.3)
Utilizing a systematic and multidisciplinary approach, students in the course will assist mentally ill individuals and others with disrupted homeostasis in meeting emotional health care needs in the hospital and in community agencies over a five-week period. Critical thinking, the nursing process, and concepts of caring will be used to provide client-centered care. Using effective communication, students will manage care for culturally diverse individuals, families, and significant others. Students, as future members of the nursing profession, will accept accountability for the ethical, legal, and professional dimensions of nursing practice.
Prerequisites: E, M, R; READ 110, BIOL 105, CIS 102, CHEM 105, ENGL 101, PSYC 201, PSYC 203, BIOL 206, ENGL 102, HOSP 113, PHED 200, SOC 101, NURS 130, NURS 180, NURS 135, NURS 185, NURS 186, NURS 187, and acceptance into the nursing program or permission of the instructor/coordinator.

281 MEDICAL-SURGICAL NURSING III, FALL 3(1.5-4.8) NURS 281 reinforces understanding and adoption of nursing roles as provider of care, manager of care, and member of the profession. Students begin to relate concepts of client-centered care, communication, critical-thinking, accountability and competency learned from previous nursing courses to the care of individuals along the health continuum and across the lifespan with common conditions. These conditions include rheumatic disorders, musculoskeletal disorders, musculoskeletal trauma and neoplastic conditions. Clinical experience is provided for 4.5 weeks in the nursing laboratory, acute/long-term, community and specialty care settings.
Prerequisites: $E, M, R, R E A D ~ 110$, CIS 102, CHEM 105, ENGL 101, ENGL 102, HOSP 113, BIOL 205, BIOL 206, PSYC 201, PSYC 203, NURS 130, NURS 135, NURS 180, NURS 185, NURS 186, NURS 187, and acceptance into the nursing program or permission of the instructor/coordinator

## 282 MEDICAL-SURGICAL NURSING IV, FALL

3(1.5-4.8)
The focus of this course is on the adult client in a state of wellness through illness. Students in this course will assist adult clients in meeting health care needs in genitourinary, blood dyscrasias, biliary, immunological, neurological, and renal conditions. Students in this course will apply newly acquired theory and skills as a provider of care, manager of care and as a member of a profession for the adult client. In providing client centered care, students will use critical thinking, effective communication skills, and be accountable for providing competent nursing care. Clinical experience is provided for four and one-half weeks in the laboratory, acute care units and community settings.
Prerequisites: $E, M, R$, READ 110, BIOL 205, BIOL 206, CIS 102, CHEM 105, ENGL 101, ENGL 102, PSYC 201, PSYC 203, HOSP 113, PHED 200, NURS 130, NURS 135, NURS 180, NURS 185, NURS 186, NURS 187, and acceptance into the nursing program or permission of the instructor/coordinator

## 285 CHILDREN'S HEALTH, WINTER

4(2.3-5.3)
The major emphasis in this course will be upon the child and family in health and illness. Safe, competent, and client-centered care will be provided in hospital and community settings over a five-week period using the nursing process, critical thinking, and concepts of caring. Students will manage care for culturally diverse individuals and groups. In addition, as future members of the nursing profession, students will accept responsibility for ethical, legal, and professional dimensions of nursing practice.
Prerequisites: $E, M, R ;$ READ 110, BIOL 205, CIS 102, CHEM 105, ENGL 101, PSYC 201, PSYC 203, BIOL 206, ENGL 102, HOSP 113, PHED 200, SOC 101, NURS 130, NURS 180, NURS 135, NURS 185, NURS 186, NURS 187, NURS 280, NURS 281, NURS 282, and acceptance into the nursing program or permission of the instructor/coordinator

## 286 MEDICAL-SURGICAL NURSING V, WINTER 3(1.5-4.8)

NURS 286 expands upon student understanding and adoption of nursing roles as provider of care, manager of care, and member of the profession. Students continue to relate concepts of client-centered care, communication, critical thinking, accountability and competency learned from previous nursing courses to the care of individuals along the health care continuum and across the lifespan with selected common recurring conditions. These conditions include acute cardiovascular impairment and endocrine disorders. Also included in this course are nursing leadership and nursing management concepts. Clinical experience is provided for 4.5 weeks in acute/ long-term care, community, and specialty care settings.
Prerequisites: $E, M, R$, READ 110, CIS 102, CHEM 105, ENGL 101, ENGL 102, HOSP 113, BIOL 205, BIOL 206, PSYC 201, PSYC 203, NURS 130, NURS 135, NURS 180, NURS 185, NURS 186, NURS 187, NURS 280, NURS 281, NURS 282, and acceptance into the nursing program or permission of the instructor/coordinator

287 MEDICAL-SURGICAL NURSING VI, WINTER 3(1.5-4.8)
NURS 286 expands upon student understanding and adoption of nursing roles as provider of care, manager of care, and member of the profession. Students continue to relate concepts of client-centered care, communication, critical thinking, accountability and competency learned from previous nursing courses to the care of individuals along the health care continuum and across the lifespan with selected common recurring conditions. These conditions include acute cardiovascular impairment and endocrine disorders. Also included in this course are nursing leadership and nursing management concepts. Clinical experience is provided for 4.5 weeks in acute/ long-term care, community, and specialty care settings.
Prerequisites: $E, M, R$, READ 110, CIS 102, CHEM 105, ENGL 101, ENGL 102, HOSP 113, BIOL 205, BIOL 206, PSYC 201, PSYC 203, PHED 200, SOC 101, NURS 130, NURS 135, NURS 180, NURS 185, NURS 186, NURS 187, NURS 280, NURS 281, NURS 282, and acceptance into the nursing program or permission of the instructor/coordinator

288 CURRENT ISSUES IN NURSING, WINTER, SUMMER (1-0) Current Issues in Nursing is a capstone class intended to expand on the socialization of the student into the role of Member of a Profession. Contemporary trends and issues in nursing are discussed with a brief historical perspective. Levels of educational preparation for nursing with scope of practice for the levels, along with the need for lifelong learning, are presented along with ethical and legal issues. Licensure issues, professional organization, and employability skills complete the preparation for the professional role. Prerequisites: E, M, R, READ 110, CIS 102, CHEM 105, BIOL 205, BIOL 206, ENGL 101, ENGL 102, PSYC 201, PSYC 203, NURS 130, NURS 135, NURS 180, NURS 185, NUR 186, NURS 187, NURS 130, NURS 135; Also either NURS 190 and NURS 191 or NURS 280, NURS 281, NURS 282, and acceptance into the nursing program or permission of instructor/coordinator.

## OFFICE INFORMATION SYSTEMS (OIS)

## 101 KEYBOARDING I

FALL, WINTER, SPRING, SUMMER
Beginning keyboard course for students with no prior training in use of a keyboard. Class is self-paced and self-instructional. Students learn alphabetic, numeric, and symbol keys including ten-key pad. Prerequisite: $R$

## 102 KEYBOARDING II

## FALL, WINTER, SPRING, SUMMER

Introductory course on a computer using a software package.
Students develop correct keyboarding techniques and skill in practical production problems such as centering, letters, manuscript, simple tabulations and forms. This class is self-paced and self-instructional. Open to students with limited training in keyboarding or speeds less than 25 net words per minute.
Prerequisite: $R$

## 103 KEYBOARDING III, FALL, WINTER, SPRING, SUMMER <br> 2(0-2)

Concentrates on using a computer soffware package to review the keyboard, improve techniques, and build speed and accuracy. This class is self-paced and self-instructional. The course is designed for students who plan to use keyboarding either vocationally or personally. The course is review of OIS 102.
Prerequisites: R, OIS 102 or equivalent and keyboarding speed of at least 25 net words per minute

## 114 INTERMEDIATE KEYBOARDING, FALL, WINTER 3(3-0) <br> Development of greater speed and accuracy on computer keyboard using a software package. Emphasis is on production work required in offices. <br> Prerequisites: M, R, OIS 102 or equivalent and keyboarding speed of at least 40 net words per minute

## 125 RECORDS MANAGEMENT, FALL, WINTER <br> 3(3-0)

Concentrates on effective and efficient management of business records. This course covers both manual and computer records management systems. Topics include basic filing methods, storage systems and supplies, information retrieval, records retention and disposition, indexing, records protection and procedures, and the operation and control of filing systems. Database applications are also covered.
Prerequisite: $M, R$

## 201 ADVANCED KEYBOARDING, FALL, WINTER 3(3-0)

Further development in speed and accuracy on computer using a software package. Attention given to advanced keyboarding problems such as statistical keyboarding, tabulations, charts, graphics, and presentations. Special attention is given to attaining high standards of production.
Prerequisites: $E, M, R$, OIS 114 or equivalent and keyboarding speed of at least 50 net words per minute

204 LEGAL TRANSCRIPTION, WINTER (ODD YEARS) 3(3-0) Learn legal terminology and build transcription skills with materials encountered in legal offices.
Prerequisites: $E, R$, OIS 114 or equivalent, OIS 217

## 208 MEDICAL TRANSCRIPTION, WINTER (EVEN YEARS)

Learn medical terminology and build transcription skills with materials encountered in medical offices.
Prerequisites: $E, R$, OIS 114 or equivalent, OIS 217, READ 110
211 OFFICE PROCEDURES, FALL, WINTER
3(3-0)
Concentrates on secretarial and clerical technologies studied and practiced in a typical office environment. Topics include: discussion and hands on use of the latest office technologies, personal presentation, practice in mailing procedures, proper use of communication mediums, employment strategies, office etiquette and development of appearance and personality.
Prerequisites: $R$

## 213 WORD PROCESSING TRANSCRIPTION, WINTER

Instruction and practice in transcribing from machines to microcomputers using wordprocessing software. Students develop skills in punctuation, grammar, spelling, proofreading, and typing mailable copy directly from machine dictation.
Prerequisites: $E, R$, OIS 114, OIS 217

## 217 INTRODUCTION TO WORD PROCESSING

 APPLICATIONS, FALL, WINTERConcepts, systems, and practices used in information processing. Students with no previous experience learn by lecture, discussion and hands-on activities with various software commands, functions and skills. Students will gain an understanding of a total information processing operation.
Prerequisites: $E, R$, OIS 102 or equivalent

218 ADVANCED WORD PROCESSING APPLICATIONS, FALL, WINTER

3(3-0)
Follows OIS 217, Introduction to Word Processing Applications, and expands student understanding of concepts, systems, and practices used in information processing. Students learn by lecture, discussion and hands-on activities. Includes more advanced word processing applications.
Prerequisites: $E, R$, OIS 114 or equivalent, OIS 217

## 219 LEGAL OFFICE PROCEDURES, WINTER (ODD YEARS)

Concertrates on duties of legal secretaries. Special attention given to legal vocabulary, typing, documents, filing and accounting.
Prerequisites: $E, R$, OIS 114 or equivalent, OIS 217

## 220 MEDICAL OFFICE PROCEDURES, WINTER (EVEN YEARS)

3(3-0)
Concertrates on duties of medical secretaries. Special attention given to medical vocabulary, typing, documents, filing and accounting. Prerequisites: $E, R$, OIS 114 or equivalent, OIS 217

## 261 OFFICE CO-OP I, FALL, WINTER

FEE, 3(1-15)
Allows students to work in approved office training station and earn credits for satisfactory secretarial experience. Minimum of 15 hours work per week required. Each student meets one hour per week with coordinator in related class. To participate in class, application must be placed with coordinator.
Prerequisites: $E, M, R$, advanced standing in Office Information Systems program, 2.00 GPA or higher in all previous college work and approval of coordinator.

## 262 OFFICE CO-OP II, WINTER

FEE 3(1-15)
Elective for students who successfully completed OIS 261. Minimum of 15 hours work per week required. Each student meets one hour per week with coordinator in related class. To participate in class, application must be placed with coordinator.
Prerequisites: $E, M, R$, OIS 261 or equivalent, approval of coordinator.

## PARAMEDIC

101 ADVANCED EMT I, FALL
8(8-0)
This course is designed to prepare the student for licensure as an Advanced EMT (Paramedic) in the State of Michigan. This course will include pathophysiology, patient assessment techniques and concepts, advanced airway management, fluid and shock resuscitation, and acid/base balance. This course is also designed to provide the Paramedic student with the knowledge of basic pharmacological principles, biological factors the influence predictable effects of drugs on physiologic problems, modifiers of predictable effects, commonalities and variations between the actions of drugs that can and do commonly occur, and application for pharmacological therapy in the pre-hospital setting. Class will incorporate medical terminology as well.
Prerequisites: $E, M, R$, BIOL108, EMT162, HEAL166, Acceptance into program

## 102 ADVANCED EMT LAB I, FALL

2(0-4)
Provides the paramedic student with skill requirements set forth by the MDCH. This course will include skill practice and scenarios with special emphasis on advanced airway, IV therapy and shock resuscitation, medication administration, pharmacology, and patient assessment.
Prerequisites: $E, M, R, B I O L 108, E M T 162$, HEAL166, Acceptance into program

## 103 ADVANCED EMT CLINICAL I, FALL

This course is designed to meet the clinical requirements set by the U. S. DOT \& MDCH. This area of clinical will involve rotations with various departments within the hospital setting as well as rotations in the pre-hospital setting. Areas of concentration will be on advanced airway management, IV therapy, patient assessment and administration of medications. Site locations: OR, Phebotomy lab, ER or Pre-OP
Prerequisites: $E, M, R$, BIOL108, EMT162, HEAL166, Acceptance into program.

## 201 ADVANCED EMT II, WINTER

8(8-0)
This course involves medical procedures and use of equipment set forth by the U. S. DOT, MDCH and the AHA. Topics to be covered include rapid interpretation of ECG's, static recognition of ECG's, electrical therapy, pharmacological therapy, basic algorithms for treatment of cardiac arrhythmias and ACLS. Also pathophysiology of heart disorders, 12 lead EKG interpretation, pediatric ACLS, pediatric pharmacological therapy. It will also include the MDCH requirements for trauma patient management.
Prerequisites: $E, M, R, \operatorname{PARA} 101,102$ and 103.

## 202 ADVANCED EMT LAB II, WINTER

Provides the Paramedic student with skills requirements set forth by the MDCH. This course will include skill practice and scenarios with special emphasis on trauma management in spinal precautions, injuries to the; head, thoracic cavity, abdominal cavity, extremities, and shock treatment as well. This skills lab will also have emphasis on cardiac care. Areas to be covered would be; cardiac rhythm interpretation, treatment of the cardiac patient given various situations, acute myocardial infarction, angina, arrhythmias, Acute Coronary Syndrome, ACLS algorithms, 12 lead intrepretation, and pharmacological intervention.
Preprequisites: $E, M, R, \operatorname{PARA} 101,102,103$

## 203 ADVANCED EMT CLINICAL II, WINTER

This course is designed to meet the clinical requirements set by the U.S. DOT \& MDCH. This area of clinical will involve rotations with various departments within the hospital setting as well as rotations in the pre-hospital setting. Areas of concentration will be on advanced airway management, IV therapy, patient assessment and administration of cardiac medications, cardiac cath lab, and complete trauma care. ( 128 hours of clinical time will be done) Prerequisites: E,M,R, PARA 101, 102, 103

## 204 ACLS, WINTER

1(1-1)
This program is a 2 day provider course providing certification in ACLS this course is presented in a format to follow the AHA guidelines for ACLS.
Prerequisites: E,M,R, PARA 101, 102, 103

221 ADVANCED EMT III, SPRING, SUMMER
8(8-0)
Prepares the Paramedic student for pre-hospital care in the Advance role for medical emergencies set forth by the U.S. DOT and MDCH, topics to be covered include medical emergencies in the areas of respiratory, gynecology, behavioral, gastro-intestinal, environmental, allergic reactions, endocrine, altered mental status. This course will provide the Paramedic student with the knowledge in caring for and transporting 'special considerations' patients. This would include pediatrics, neonatology, and geriatrics. This course will also cover the Paramedic Operations area of the curriculum of the DOT and MDCH requirements. Topic areas would include hazardous materials, rescue operations, WMD, and multi-casualty incidents. In addition to these areas of study, the Paramedic student will take a comprehensive exam in preparation for the National Registry of EMT's Exam that can lead to licensure of the Paramedic. Prerequisites: $E, M, R$, PARA 201, 202, 203

## 222 ADVANCED EMT LAB III, SPRING, SUMMER

This skills lab will provide the paramedic student with the opportunity to practice and refine the skills necessary to function as a paramedic. The skills covered are set forth by the U.S. DOT \& MDCH. Skill practice will be under direct supervision and be primarily scenario based for preparation of the NREMT practice exam.
Prerequisites: $E, M, R$, PARA201, 202, 203

## 223 ADVANCED EMT CLINICAL III, SPRING, SUMMER

3(0-12)
Clinical experience 3 is designed to emphasis on the paramedic student functioning as a paramedic under the direct supervision of licensed paramedic. The student will also participate in hospital rotations in the areas of ER, ICU, pediatrics, and labor/delivery. The field experience time will consist of 72 hours of direct supervision with an approved licensed paramedic crew. Total clinical time for PARA303 is 180 hours.
Prerequisites: E,M,R, PARA201, 202, 203

## 224 PEPP PROVIDER COURSE, SPRING,SUMMER

This course is a 2 day, 16 hour provider course in Pre-hospital Emergency Pediatric Provider certification. Emphasis will be in Pediatric assessment, airway, cardiovascular care and treatment. Prerequisites: $E, M, R, P A R A$ 201, 202, 203

## 225 ITLS PROVIDER COURSE, SPRING,SUMMER

This program is a 2 day provider course providing certification in ITLS. This course is 16 hours emphsizing in trauma care and rapid assessment.
Prerequisites: $E, M, R$, PARA201, 202, 203

## 230 INTERNSHIP, SPRING, SUMMER

5(0-20)
This portion of the program will allow approved Paramedic students to complete their training in the field. The paramedic student will be assigned to a paramedic preceptor and work with that preceptor for 250-300hrs. Upon successful completion of this internship, the paramedic student may be eligible for NREMTP examination process. Prerequisites: $E, M, R$, PARA201, 202, 203

## PHILOSOPHY (PHIL)

101 INTRODUCTION TO PHILOSOPHY, FALL, WINTER 3(3-0)
Nature of Philosophy by consideration of major types of philosophical questions, such as principles of rational belief, existence of God, pursuit of good life, nature of knowledge, problem of truth and verification and relationship of people to state. Establishes frames of reference so students can begin asking philosophical questions. Prerequisites: $E, R$

## 102 INTRODUCTION TO LOGIC, FALL, WINTER

Ways people reason and come to conclusions. Helps students to understand and evaluate other people's arguments. Focus on ways to test reliability of own reasoning and construct sound arguments. Prerequisites: $E, R$

## 215 INTRODUCTION TO RELIGIOUS THOUGHT, FALL

History, scope, subject matter and goals of world religions. Basic concepts common to most major religions. Recommended for sophomores.
Prerequisites: $E, R$

## 250 SOPHOMORE SEMINAR IN PHILOSOPHY, WINTER

Special themes within philosophy of interest to non-Philosophy majors. Themes include Problems in Philosophy of Science, Issues in Business Ethics, Introduction to Medical Ethics, Man and Machines - A Philosophy of Technology, or Philosophy of Law. Semester class schedule indicates theme to be covered.
Prerequisites: $E, R$, sophomore standing or permission of instructor

## PHYSICAL EDUCATION \& WELLNESS (PHED)

The general Physical Education \& Wellness program series offers instruction and opportunities to participate in fitness-related activity, recreational and lifetime activities, and wellness promotion opportunities.

## 102 INTERMEDIATE VOLLEYBALL, ON DEMAND

For students with experience playing power volleyball. Advanced offenses and defenses. Competitive tournaments run throughout class.

107 GOLF, FALL, SPRING
FEE, 1(1-1)
Emphasis will be placed on proper use of irons, woods, and putting with proper stance, approach, grip, full swing, and body positioning. Opportunity for actual play on golf course will be made available.

## 118 PHYSICAL CONDITIONING

Knowledge and appreciation of continued state of physical fitness.
Personal fitness program developed and implemented. Actual implementation of individual's personal fitness program.

## 124 WEIGHTLIFTING, FALL, WINTER

Taught in classroom and gym. Classroom portion emphasizes human musculature as related to weight resistive programs. Lifting portion involves both weight training and cardiovascular with emphasis being total fitness.

125 INTERMEDIATE WEIGHTLIFTING,
Continuation of basic course. Individual programs designed based upon student goals. Opportunity to develop strength or body-
building programs utilizing universal equipment and/or free weights. Prerequisite: PHED 124

## 127 INTRODUCTION TO BASKETBALL

1(0-2)
Introduction to the sport of basketball. Includes all skills necessary to play game as well as some defensive and offensive strategies.

131 BASIC SCUBA, ON DEMAND
FEE, 1(0-2)
Introduction to diving equipment, fundamentals of physics and physiology related to diving. Practical applications emphasized for all necessary basic diving techniques. Upon satisfactory completion of course, NAUI Basic Scuba Certification awarded. Students must have healthy lungs and not be suffering from asthma or any airwayrestricting condition. Minimum 12 years of age required.

## 133 BEGINNING VOLLEYBALL, (ON DEMAND)

Current rules, history, skill techniques of spike, service, forearm pass, setup, blocking and strategy. Tournaments conducted throughout class.

134 FUNDAMENTALS OF BASEBALL, FALL
1(0-2)
This class provides basic instruction in the fundamental skills of baseball including hitting, fielding, catching, and throwing. Gamelike situations will also be practiced. The student will gain knowledge of the rules of baseball.
Prerequisites: None

## 145 TOTAL FITNESS I

1(0-2)
This is an individualized course which offers an introduction to and participation in multi-station aerobic super-circuit utilizing sub maximal weights with multiple repetitions. The class utilizes an open lab concept where students satisfy requirements of the class by attending open hours The average workout time for all stations including warm-up and cool down is 50 minutes. The course is taken for college-credit with a letter grade assigned.
Prerequisites: None

## 146 TOTAL FITNESS II FALL, WINTER, SPRING, SUMMER

1(0-2)
This class is designed for students who have successfully completed PHED1 46 Total Fitness I or PHED2 12 Health and Fitness and desire to continue to utilize the Wellness Center while earning college credit. This is an individualized course which offers a continuation of exercise with a multi-stations aerobic super-circuit or a specialized individual program.
Prequisites: PHED 145 or PHED212

## 200 HEALTHFUL LIVING, FALL, WINTER, SPRING, SUMMER

2(1-1)
The purpose of this course is to acquaint the student with concepts of wellness and the relationship between physical activity and optimal health and fitness. Topics include CV disease, exercise, nutrition, weight management, behavior modification, stress, cancer, addiction and sexually transmitted infections.
Prerequisites: none
Note: Credits from only one of the following courses will count toward LMC graduation; PHED 200, 212 or 214.

## 212 HEALTH AND FITNESS, FALL, WINTER, SPRING, SUMMER

3(2-2)
This course combines classroom experience and personal exercise. Students establish knowledge of wellness, physical fitness, CV disease, nutrition, weight management, behavior modification, stress, cancer, addiction and sexually transmitted infections. Students implement an individualized exercise program and are required to exercise two days per week in the specified fitness center.

## Prerequisites: none

Note: Credits from only one of the following courses will count toward LMC graduation; PHED 200, 212 or 214.

## 214 PERSONAL HEALTH, FALL, WINTER

3(3-0)
This course provides an understanding of the responsibility we have for our own health. Topics include CV disease, exercise, nutrition, weight management, behavior modification, stress, cancer, substance abuse, mental and emotional health, sexuality, contraception, infectious and non-infectious disease, personal safety, death and dying.

## Prerequisites: none

Note: Credits from only one of the following courses will count toward LMC graduation; PHED 200, 212 or 214.

## 216 HEALTH ISSUES: STRESS MANAGEMENT

## FALL,WINTER

2(2-0)
Physiological responses to stress and developing techniques for better stress management.

## 217 HEALTH ISSUES: SELF-ESTEEM, FALL,WINTER

1(1-0)
Assists in growth in ability to love and care for oneself and others. Techniques practiced daily to enhance self-esteem and variety of selfesteem issues presented.

## 218 HEALTH ISSUES: WEIGHT MANAGEMENT

1(0-2)
This course consists of one session per week in the classroom setting to acquire an understanding of the physiology of fat gain and loss, the side effects of short term solutions, and proper weight management techniques. Another session each week will include a support group atmosphere.
Prerequisite: Students must enroll in Total Fitness Center 145 OR 146 CONCURRENTLY with this class or acquire instructor's permission. Wellnes Center for credit or as Community Member.

## 220 HEALTHFUL LIVING II, FALL,WINTER

The purpose of this course is to acquaint the student with additional concepts related to healthy living that are not included in the PHED 200 Healthful Living course. Areas of study include mental and emotional health, safety, violence and abuse, sexuality, reproductive health, infectious and noninfectious disease, aging, death and dying, environmental health and alternative medicine.
Prerequisite: PHED 200 or concurrent enrollment and basic computer skills.

## 190 EARTH SCIENCE FOR ELEMENTARY/MIDDLE SCHOOL TEACHERS I FALL

The first of a two-course laboratory-based earth science sequence designed for preservice elementary/middle school teachers. The intent of this course is to acquaint future teachers with the important concepts of earth science, and to provide the basic tools of independent, creative inquiry that teachers can take into the classroom. This course will explore the practice of science by emphasizing inquiry-based activities. This course is specifically designed to address the Elementary and Middle School Content Standards of the Michigan Science Strand V: Use Scientific Knowledge from the Earth and Space Sciences in Real-World Contexts.
Prerequisite: $E, M, R$, and computer literacy. This course is the prerequisite for PHSC 290.

## 280 PHYSICAL SCIENCE FOR ELEMENTARY TEACHERS II, WINTER,

This is a laboratory-based course specifically designed for prospective elementary teachers. This course will aid students in developing meaningful and functional understanding of key physics concepts and their interrelations. This course is specifically designed to transfer to Western Michigan University's Elementary Education program and may not transfer to other institutions.
Prerequisites: $E, M, R$, and computer literacy.

## 290 EARTH SCIENCE FOR ELEMENTARY/MIDDLE SCHOOL TEACHERS II, WINTER 3(2-3)

The second of a two-course laboratory-based earth science sequence designed for preservice elementary and middle school teachers. The intent of this course is to acquaint future teachers with the important concepts of earth science, and to provide the basic tools of independent, creative inquiry that teachers can take into the classroom. Emphasis will be given to study of the geology of Earth. This course will explore the practice of science by incorporating inquiry-based activities into the pedagogy. This course is specifically designed to transfer to Western Michigan University's Elementary Education program and may not transfer to other institutions. Prerequisite: $E, M, R$, and computer literacy.

## PHYSICS (PHYS)

## 101 GENERAL PHYSICS I, FALL

Principles of Newtonian mechanics and kinetic theory. Recommended for Biology, Pre-Medical and Liberal Arts students. Includes a two hour laboratory experience per week.
Prerequisites: M, R, MATH 122 or MATH 128 concurrently or consent of instructor.

## 102 GENERAL PHYSICS II, WINTER

5(4-2)
Principles of electricity and magnetism, light and modern physics. Continuation of Physics 101. Includes a two hour laboratory experience per week.
Prerequisite: PHYS 101

## 104 INTRODUCTION TO THE SKY AND SOLAR SYSTEM FALL, WINTER

Introduction to the night sky and our solar system including cycles of the Sun, Moon, planets, and constellations; the historical development of astronomy; basic properties of light and telescopes; nature and properties of the planets and the Sun; asteroids, meteorites, and comets; and the origin and evolution of the solar system. Includes laboratory component designed to illustrate and explore the topics covered. Includes a two hour laboratory experience per week. Prerequisites: $E, M, R$ and MATH 095 (or equivalent)

## 110 TECHNICAL PHYSICS, WINTER

4(3-2)
Topics from general physics for students pursuing technical program; emphasis on matter, force, power, basic machines, torque, power transmission and topics from heat, sound and light. Includes a two hour laboratory experience per week.
Prerequisites: M, R, MATH 130

## 201 ENGINEERING PHYSICS I (MECHANICS), FALL

Newtonian and Relativistic mechanics, kinetic theory and thermodynamics; designed for Engineering, Mathematics, Physics and Chemistry transfer students. Includes a two hour laboratory experience per week.
Corequisite: Mathematics 201

## 202 ENGINEERING PHYSICS II (ELECTRICITY AND

 MAGNETISM), WINTERElectricity, magnetism and light for Engineering, Mathematics, Physics and Chemistry transfer students. Includes a two hour laboratory experience per week.
Prerequisite: PHYS 201

## POLITICAL SCIENCE (POSC)

101 NATIONAL GOVERNMENT, FALL, WINTER, SPRING \& SUMMER
Examine the structure and operation of the national government, the meaning and practice of democracy, the various power relationships, civil liberties and civil rights, as well as the American method of conducting elections. The role of citizens and their choices is also examined.
Prerequisite: $E, R$

## 102 STATE GOVERNMENT, FALL \& WINTER

 (SPRING \& SUMMER, ON DEMAND)Examines political decision-making and public policies of state governments, with particular emphasis on Michigan. Analyzes both the relationships of states with the national government as well as each other, and contrasts policies and political structures in each state.
Prerequisites: $E, R$

## 202 COMPARATIVE GOVERNMENTS, WINTER

 (ODD YEARS)Examines the similarities and differences that exist between the local governments, the public policies, the constitutions as well as the executive, legislative, and judicial branches of key central (i.e., national) governments around the world. Particular emphasis is also placed on the literature that underscores the study of comparative governments.
Prerequisite: $E, R$

## 203 INTERNATIONAL RELATIONS, WINTER (EVEN YEARS)

3(3-0)
Examines the relations that exist among nation-states. Particular emphasis is placed upon the factors/variables contributing to national power, the instruments used by nation-states to promote their own interests and the methods used to control interstate relations such as international law, balance of power arrangements, pacific settlement of disputes and international organizations.
Prerequisites: $E, R$
204 POLITICAL PARTIES, FALL (EVEN YEARS) 3(3-0)
Examines the development, organization, function, and activities of major and minor political parties, pressure groups (e.g., interest groups), and election administration in the United States. Prerequisite: $E, R$

## 250 INTRODUCTION TO SOCIAL SCIENCE RESEARCH (ON DEMAND)

Examine the research process, from development of hypotheses to report of findings. Research strategies include survey research, experimental designs, interviewing, observation and content analysis. For Social Science majors who plan to transfer.
Prerequisite: POSC 101 or 102, with $B$ or better or instructor permission.

## 260 INTRODUCTION TO PUBLIC POLICY, FALL (ODD YEARS)

Examines current political topics within the public policy realm. The student is expected to grasp the issue and/or policy of concern and all of its complexities as well as appreciate its significance to modern everyday life. Topics will vary over time and will be drawn from either an American or international perspective.
Prerequisites: E; R; POSC 101 or POSC 102 or permission of instructor.

## PSYCHOLOGY (PSYC)

## 201 INTRODUCTION TO PSYCHOLOGY,

 FALL, WINTER, SPRING, SUMMERDescription, understanding and control of human behavior. Twofold aims: increase student ability to understand self and others and make more satisfactory adjustment to life and introduction to field of Psychology.
Prerequisites: $E, R$
203 HUMAN DEVELOPMENT, FALL, WINTER, SPRING 3(3-0)
Physical, cognitive, social and emotional development from conception through death. Emphasis upon factors influencing development of personality.
E,R, PSYC201 with a C or better
204 CHILD DEVELOPMENT AND PERSONALITY, FALL 3(3-0) Physical, social, intellectual and personality development from conception through adolescence. Emphasis upon factors influencing development of personality.
E,R, PSYC201 with a C or better

## 205 INTERPERSONAL RELATIONS, FALL, WINTER

Interpersonal communication theory and practice to enhance effectiveness in interpersonal relations through better understanding of self and others. Topics include areas such as active listening behaviors, assertive confrontation and conflict resolution. Prerequisite: PSYC 201

206 SOCIAL PSYCHOLOGY, WINTER
Topics related to social influences on the individual, emphasizing social psychological research.
Prerequisite: $E, R$, PSYC 201 with a " $C$ " or better.

## 230 PSYCHOLOGY OF STEREOTYPING \& PREJUDICE, FALL

3(3-0)
Reviews theories and research on racial, ethnic and religious stereotyping and prejudice. Examines the developmental roots of these attitudes and beliefs and explores their emotional and behavioral consequences. Conscious and unconcious processes will be discussed. In-class participation will be strongly encouraged. Prerequisites: $E, R$

231 ABNORMAL PSYCHOLOGY, FALL, WINTER
Descriptions of cognitive, affective and behavioral disorders. Origins of specific disorders considered along with nature and problem of diagnosis and classification, and contemporary modes of treatment. E,R, PSYC201 with a C or better

## 250 INTRODUCTION TO SOCIAL SCIENCE RESEARCH, WINTER

Research process, from development of hypotheses to report of findings. Research strategies include survey research, experimental designs, interviewing, observation and content analysis. For Social Science majors who plan to transfer.
Prerequisites: B or better in PSYC 201and permission of instructor

## RADIOLOGIC TECHNOLOGY (RADT)

130 INTRODUCTION TO RADIOGRAPHY, FALL 3(3-0)
Introduction to radiography. Topics covered include historical perspective of radiology, medical ethics, patient care and radiation protection.
Prerequisites: $E, M, R$, acceptance into Radiologic Technology program

131 RADIOGRAPHIC POSITIONING I, FALL
FEE, 3(2-2)
Radiographic nomenclature used in positioning, routine positioning of upper extremities, associated girdles, chest, abdomen and related pathology.
Prerequisites: $E, M, R$, acceptance into Radiologic Technology program

133 CLINICAL EXPERIENCE A, FALL FEE \$16.50, 2(0-16)
Weekly 16 -hour rotation through area hospitals during which student applies knowledge/skills learned in lecture and laboratory. Emphasis on patient care, communication and basic positioning skills.
Prerequisites: $E, M, R$, acceptance into Radiologic Technology program

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## 142 RADIOGRAPHIC PHYSICS, WINTER

4(4-0)
Physics as related to the operation of $x$-ray equipment. Topics include atomic theory, x-ray properties, necessary units of measurement, electricity and electromagnetism, basic electrical circuit components, and electrical circuitry.
Prerequisites: $E, M, R$ and RADT 130, 131, 133.

## 143 CLINICAL EXPERIENCE B, WINTER

FEE $\mathbf{\$ 1 6 . 5 0 ,}$ CREDIT 2(0-16)
Continuation of RADT 133. Students continue to refine positioning skills taught in the first semester, adding to their repertoire with positioning of lower extremity and spine.
Prerequisites: $E, M, R, R A D T$ 130, 131, 133

## 145 RADIATION PROTECTION AND BIOLOGY SPRING

2(2-0)
Focuses on principles of interaction of radiation with living systems and radiation protection responsibilities of radiographer for patients, personnel, and public.
Prerequisites: $E, M, R, R A D T 130$, RADT142
146 CLINICAL EXPERIENCE C, SPRING, FEE \$16.50, 1 (0-16)
Fifteen day rotation through area health care facilities. Students participate in clinical practicum with an emphasis on fluoroscopy and portable radiography.
Prerequisites: $E, M, R$, and RADT 140, 141, 142 and 143.

## 230 COMMON EQUIPMENT AND PROCEDURES, FALL

4(4-0)
Investigates common equipment and procedures employed in diagnostic radiology. Topics include x-ray circuits, grids, screens and cassettes, beam limiting devices, x-ray tubes, flouroscopic, picture archiving communication systems, and digital imaging.
Prerequisites: $E, M, R$, and RADT $130,142,145$ and 146.

## 231 RADIOGRAPHIC POSITIONING III, FALL

3(2-2)
Radiographic positioning of petrous portion of skull, facial bones, thorax and related pathology.
Prerequisites: $E, M R, R A D T 232$

## 232 CLINICAL EXPERIENCE D, SUMMER

FEE \$16.50, 5 (0-18.6)
Seven week rotation through area health care facilities. Students participate in a 40 hour week supervised clinical practicum with emphasis on gaining further first year experience in trauma radiography.
Prerequisites: $E, M, R$, and RADT 145 and RADT 146

## 240 RADIOGRAPHIC QUALITY, WINTER

Lecture/lab course covering principles of radiographic image formation, quality assurance tests and technical variables that affect finished radiographs.
Prerequisites: $E, M, R$, RADT 230, RADT 231, RADT 232
241 SPECIAL PROCEDURES/EMERGING MODALITIES, WINTER 3(3-0) Specialized radiologic procedures including tomography, myelography and angiography. Introduction to other imaging's modalities including CT, MRI and Sonography.
Prerequisites: $E, M, R, R A D T$ 240, RADT 231, RADT 232

## 242 CLINICAL EXPERIENCE E, FALL

FEE \$16.50, 3 (0-24)
Weekly 24 hour clinical rotation at area health care facilities with emphasis on skull and thoracic radiography. Prerequisites: $E, M, R$, and RADT 232.

## 245 CLINICAL EXPERIENCE FALL, WINTER

FEE $\$ 16.50,3(0-24)$
Weekly 24 hour clinical rotation at area health facilities. Students expected to perform more complex radiographic examinations in preparation for graduation from the program. Students will also participate in supervised clinical practicums in specialty imagining modalities. Modalities include: CT, MRI, Ultrasound, Nuclear Medicine, Radiation Therapy, and Cardiovascular.
Prerequisites: $E, M, R$, and RADT 230, 231, and 232.

## READING (READ)

NOTE: Course numbers below 100 are not counted toward a Certificate or Associate Degree.

Reading is a basic life skill, the cornerstone for success in school, career and throughout life. The Reading curriculum assists students to become better readers. Instruction varies from individualized to large/small group in order to meet individual needs, abilities and interests. Audio-visual materials are incorporated into class presentations. Computer-assisted instruction is used.

Students must pass their Reading coursework and a Reading Assessment test to register for classes with a Reading prerequisite. Once beginning the sequence, students must complete all courses or demonstrate proficiency on the Reading Assessment test.

## ONE-CREDIT COURSES:

These courses are for students who want or need a brief, concentrated review of a certain discipline or who need an additional hour or two for various reasons. Students who choose a one-credit course should register as usual then go to the Reading Center, to arrange class hours. One-credit courses are scheduled as follows:
(1) one credit hour; attend 2 hours per week for 15 weeks
(2) one credit hour; attend 3.5 hours per week for 8 weeks Students may register for one-credit classes as follows:
(1) at the start of the semester, or
(2) during the semester until mid-term

## 0881100 WORDS (YOU NEED TO KNOW),

 FALL, WINTER1 (0-2)
Improves speaking and reading vocabulary. Vocabulary exercises employ techniques of using pronunciation symbols, using terms in context and completing sentences.
Prerequisite: READ 084

## 090 POWER STUDY SKILLS, FALL, WINTER

Audio-tutorial course to improve study and note-taking skills. Stresses reading and note-taking techniques appropriate to academic materials.

## 093 SUPER-SPEED READING, FALL, WINTER

1 (0-2)
Increases reading speed and comprehension. Utilizes individualized audio-visual techniques to fit needs, interests and abilities of student. Prerequisite: READ 085

096 VOCABULARY POWER, FALL, WINTER
1 (0-2)
Audio-modular, programmed system that concentrates on different aspects of developing vocabulary.

## 099 SPELLING MASTERY, FALL, WINTER

For students with below-average spelling skills. Modular audio materials allow mastery to be accomplished individually.

## 110 MEDICAL TERMINOLOGY VOCABULARY,

 FALL, WINTER, SPRINGLearn structure of medical vocabulary. Provides aids to pronunciation, spelling and meaning of continually expanding medical vocabulary. Utilizes audio-visual, programmed materials.
Applies to General Studies and Associate Degrees.
Prerequisite: $R$

## ADDITIONAL-CREDIT COURSES:

## 081 READING IMPROVEMENT I,

FALL, WINTER, SPRING, SUMMER
Improves student academic preparedness. Emphasis on techniques and strategies to help improve reading skills, read more effectively and develop appreciation for reading. Computer-assisted instruction occurs in the Reading Laboratory.
Prerequisite: Appropriate Reading assessment score

## 083 READING STRATEGIES I,

## FALL, WINTER, SPRING, SUMMER

Provides techniques and strategies to help develop college-level vocabulary and reading proficiency. Emphasis on learning and practicing a combination of reading skills and integrating them into a college text. Computer-assisted instruction occurs in the Reading Laboratory.
Prerequisite: Appropriate Reading assessment score

## 084 READING IMPROVEMENT II, <br> FALL, WINTER, SPRING, SUMMER

4(3-1)
Enables learners to acquire competencies needed for success in college courses. Emphasis on strategies necessary to deal with vocabulary required by college curriculum, content comprehension of college texts and other required readings, and ability to apply critical reading principles to reading materials. Computer-assisted instruction occurs in the Reading Laboratory.
Prerequisite: Appropriate Reading assessment score
085 READING STRATEGIES II, FALL, WINTER, SPRING, SUMMER 2(0-2)
Interactive, computer delivered instructional course, teaching comprehension strategies through understanding, evaluating, and researching ideas, answering questions, and locating information. Goes beyond teaching of literal comprehension to include integration and synthesis of information.
Prerequisite: Appropriate Reading assessment score
101 STUDY SKILLS, FALL, WINTER, SPRING, SUMMER 3(1-2)
Assists students in developing better study skills. Emphasis on practical study techniques, note taking, textbook marking, test taking skills and time management.
Prerequisite: $R$

## SOCIOLOGY (SOC)

101 PRINCIPLES OF SOCIOLOGY,

## FALL, WINTER, SPRING

Principles of human association and interaction, with emphasis on interrelationship of heredity, environment, culture, groups and institutions in life of humans and society.
Prerequisites: $E, R$

## 201 MODERN SOCIAL PROBLEMS, FALL, WINTER

Contemporary social problems and related rehabilitative and ameliorative resources and approaches in solving problems, with emphasis on problems of inter-group and inter-culture conflicts regarding differing beliefs and value systems.
Prerequisites: $E, R$

## 202 MARRIAGE AND THE FAMILY, WINTER

Personal, social and cultural factors relating to pre-marriage and marriage; emphasis on interpersonal aspects of marriage, parenthood and family living in a changing world. Students with sophomore standing preferred.
Prerequisites: $E, R$

## 204 THE FIELD OF SOCIAL WORK, FALL, WINTER 3(3-0)

The study of social work as a professional field. The philosophy, function, employment opportunities, patterns of specialization, and methods of social work are surveyed.
Prerequisites: $E, R$

## 205 RACE AND ETHNIC RELATIONS

3(3-0)
Studies of divisions among people along racial and ethnic heritages in today's American society. Includes various ethnic groups from five categories: 1) European ethnics; 2) Hispanic ethnics; 3) Asian ethnics; 4) historically American subjugated ethnics; and 5) socio-religious ethnic minorities.
Prerequisites: $E, R$

## 210 SOCIOLOGY OF AGING

FALL, WINTER, SPRING, SUMMER
The study of the socio-cultural, economic, and physical aspects of aging in the United States and other societies with an emphasis on the diversity of the aging process.
Prerequisites: $E, R$

## 250 INTRODUCTION TO SOCIAL SCIENCE RESEARCH WINTER

Research process from development of hypotheses to report of findings. Research strategies include survey research, experimental designs, interviewing, observation, and content analysis. For social science majors
Prerequisite: SOC101, with B or better or instructor permission.

## THEATRE (DRAM) <br> 110 PRINCIPLES AND PRACTICES OF ACTING I,

Principles of acting for the stage. Emphasis on performance through exercises and scene work. Movement and voice work covered. Brief study of general theatre language and terms.
Prerequisite:t $R$
111 PRINCIPLES AND PRACTICE OF ACTING II,
Techniques and problems of stage actor. Emphasis on performing scenes. Stresses character development and ensemble acting. Students develop audition pieces.
Prerequisite: DRAM 110

## 112 STAGECRAFT, WINTER

Basics of technical theatre production. Study of set design and construction, basic lighting and sound principles and scenery styles. Work required on department productions. Course may be repeated once for additional credit.

175 SUMMER THEATRE WORKSHOP (ON DEMAND) 6(6-0) Experience as part of professional production company. Array of tasks and duties as part of company. Highly recommended that students not enroll in other classes during this 7 -week period.

## 201 INTRODUCTION TO THEATRE, FALL

3(3-0)
General theatre practice, dramatic types (comedy, tragedy, farce, etc.), areas of production responsibilities and theatre history. Study of various dramatic types and periods, and attendance at theatrical performances. Semester culminates with class production project. Prerequisite: $E, R$

## 202 THEATRE PRACTICUM, FALL, WINTER

3(3-0)
Supervised experience in one or more areas of theatre. Nature of involvement determined by student theatre contract. Students may add class within one week after casting. Course may be repeated for credit.

## 220 INTRODUCTION TO THEATRE FOR YOUNG AUDIENCES \& CREATIVE DRAMATICS

This course introduces students to the depth and possibilities of creative dramatics and the art of children's theatre. Students will learn about the history and significance of children's theatre/Theatre for Young Audiences and creative dramatics and conclude the course with a practical immersion in a facsimile classroom setting. This class is open to all majors.
Prerequisites: $E, R$

## TRADE RELATED INSTRUCTION

 (TRIN)105 APPLIED TRIGONOMETRY II, FALL, WINTER 2(2-0)
Oblique angle trigonometry which incorporates law of sines, cosines, cotangents and right triangles in solving practical shop problems.
Prerequisite: MATH 110 or TRIN 107

## 106 COMPOUND ANGLES, FALL, WINTER

3(3-0)
Study of practical application of five basic solid geometric figures.
Emphasis on utilizing figures when calculating rotation and tilt of part before machining.
Prerequisite: TRIN 105

107 APPLIED GEOMETRY/TRIGONOMETRY, FALL, WINTER
Second in series of applied mathematics courses that build upon concepts applicable to machine tool trades. Presents intermediate applications of geometry including propositions and axiom definitions, circles, areas, volume formulas and right angle trigonometry including right angles, interpolation and practical machining problem solving. Follows Duties and Standards for Level 1 Machining Skills as approved by National Institute for Metalworking Skills.
Prerequisites: MATH 100

## 113 INTERPRETIVE BLUEPRINT READING, WINTER 4(4-0)

Designed for Machinist, Mold Maker, and Trim Die Maker trainees/ apprentices in their final year of training. Advanced blueprint interpretation for different types of molds, and understanding gating, heating and cooling along with advanced processes required to build a mold.
Prerequisites: $M, R$, MACH 110, MACH 120, MATH 100, MATH 107, MATH 111, TRIN 143, 147, DRAF 144, 145

## 129 ELECTRICAL CODE STUDY, (ON DEMAND) 2(2-0)

Interpretation and application of State and National Electrical Code.
Prerequisites: ELEC 100, ELEC 106, ELEC 111, ELEC 113

## 134 METALLURGY AND HEAT TREATMENT, FALL, WINTER

Acquaints students with properties of metals and heat treating methods.
Prerequisite: MATH 110 or TRIN 107
135 STRENGTH OF MATERIALS, (ON DEMAND)
Fundamental principles of material strength. Includes simple machines, vector quantities, simple stresses, rivets, material properties, beams, center of gravity and similar topics.
Prerequisite: TRIN 105

## 138 INDUSTRIAL SAFETY, SPRING

1(1-0)
Safety rules applied to industry. Covers OSHA standards and guidelines.

## 143 INTRODUCTION TO MOLD MAKING, FALL, WINTER

Course explains the "whys" underlying applied mold making and operation. Essential facts of cutting and forming operation are explained and related to the manner in which molds function. Primary mold components are discussed along with efficient working mold processes through films, videos and plan tours. Prerequisites: $M, R$

## 144 BLUEPRINT READING \& SKETCHING, FALL, WINTER

Basics of interpreting working drawings, tolerancing, machining symbols, fasteners, sections, auxiliary views, developments, piping drawing, material specifications, casting drawings, assembly drawings, welding drawings and machine elements. Offers approximately one hour of practical interpretive sketching each class period.
Prerequisites: $M, R$
145 GEOMETRIC TOLERANCING AND POSITIONING, WINTER2(2-0)
Second in a series of three blueprint reading courses providing an in-depth study of interpreting geometric tolerancing as it is used on blueprints in today's industrial environment.
Prerequisites: $M, R$, TRIN144, MACH 110, MATH 100

Basic die construction facts around which a successful career in the field of die making can be established. Course will explain the "whys" underlying applied die making and operation. Essential facts of cutting and forming operation are explained and related to the manner in which dies function. Primary die components are discussed along with efficient working die processes through films, videos and plant tours.
Prerequisites: M

## 148 COIL AND HAND FED PRESS OPERATIONS

Basic press components, press operating controls, safe operation procedures, measuring and gaging piece parts, setup and control of tools, changing/installation of die assembly, setup of uncoilers, straighteners, feeds and coil handling procedures, adverse coil and material conditions, and troubleshooting system operations. Principles and practices of press setup and operation will comply with OSHA/MIOSHA safety standards and with metal working industry skill standards.
Prerequisites: $M, R$, TRIN147
156 INDUSTRIAL RIGGING, SUMMER
Industrial specialty course for industrial maintenance trades and trades that require basic understanding of techniques, methods and materials needed to perform rigging tasks safely. Basic principles and practices for industrial rigging tools and load configurations, machinery moving, foundations, cranes and hoists, cable, chain and wire rope sling, inspection and maintenance documentation and OSHA/MIOSHA standards.
Prerequisite: $M$
159 EMPLOYER-EMPLOYEE RELATIONS, SPRING
An introduction to human relations and self-management skills essential for a successful career. Covers some of the rights and responsibilities of the employer and employee and addresses topics to develop and improve employer and employee relations.
Prerequisites: $E, R$
243 ADVANCED DIE MAKING, (ON DEMAND)
Die press operation, advanced die construction and advanced applied diemaking practices. Focuses on inverted, compound and progressive dies, secondary operations and drawing operations. Films, video and plant tours provide exposure to working die processes.
Prerequisites: $M$, , MACH 110, TRIN 144, TRIN 147


## Bachelor of Business Administration

This is a complete business administration degree, providing a strong business foundation within the context of a contemporary liberal arts curriculum. In addition to the standard major, students may focus their electives in management, marketing, finance or accounting for a concentration in those areas. The program's case study method fosters critical thinking, problem solving, communication and decision-making skills, while exploring the social, legal and ethical issues shaping today's business environment. Faculty members are practicing business professionals who bring marketplace reality to the classroom and provide sound career advising for students. An overall 2.25 GPA is required in the major.

## Bachelor of Business Administration in Accounting

The BBA degree is also offered with a major in Accounting. This degree is a perfect way for associate degree holders in accounting from Lake Michigan College to continue on and complete a bachelor's degree. Students with accounting credits from other institutions may be required to validate their accounting knowledge in upper-division accounting classes. A 2.25 GPA is required for all Siena classes in the major.

## Bachelor of Arts in Community Services

The Community Services major is a program for persons interested, or already involved in, social service careers. This degree prepares students for a variety of career opportunities in the "helping" professions, where social service workers help strengthen the abilities and resources of others. Designed for students with some previous study and / or experience in the social sciences, the program offers a strong overview of the social service field and the role of the professional as an agent for positive social change. Students must maintain a 2.5 GPA in the major.

## Other Education Opportunities <br> Siena Heights University at Lake Michigan College <br> Siena Heights University is a Catholic, coeducational, liberal

 arts university founded and sponsored by the Adrian Dominican Congregation in 1919. The main campus, in Adrian, Michigan, enrolls about 1,200 students in full-time and part-time study leading to associate's, bachelor's, and master's degrees. A leader in nontraditional education, Siena Heights has over 25 years experience providing service-oriented education for working adults. Siena Heights was the first private liberal arts college in Michigan to offer degree completion programs designed specifically for adult students. In addition to the Lake Michigan College Center, Siena Heights operates degree completion programs in Battle Creek, Jackson, Lansing, Metropolitan Detroit, Monroe, Port Huron and Ann Arbor.Degree completion is an integral part of the Siena Heights mission to assist people to become more competent, purposeful and ethical. Siena Heights challenges individuals to identify, refine and achieve their personal goals, and to articulate a personal philosophy of life. Siena Heights University is accredited by the North Central Association of Colleges and Schools.

## Bachelor of Arts in Multidisciplinary Studies

This major is a specially designed program with maximum flexibility for adults with a diverse educational background. Each student in the program develops a personalized curriculum contract that includes classes clustered in four areas: humanities, social sciences, natural sciences / mathematics, and applied science / professional studies. This program enables students to address specific career interests quickly and efficiently. For example, a student could focus on management or marketing without committing to a total business administration program.

## Bachelor of Applied Science

The Bachelor of Applied Science is a career-oriented degree program designed for professionals with allied health, technical or vocational training and experience, and graduates of two-year occupational programs, or those who have completed an apprenticeship or certain military certification. There is also a MOCAC testing option to obtain credit and establish a major. The B.A.S. is structured on the invertedmajor concept, which builds an individually designed academic degree program around the technical or occupational major the student already has completed. B.A.S. students develop a customized degree plan appropriate to their prior learning and future goals. Several B.A.S. programs are described below; however, the B.A.S. is also appropriate for majors such as corrections / law enforcement, computer information systems, hospitality management and many other occupational associate's degree programs.

## B.A.S. in Allied Health

Students with previous health care training in nursing, radiologic technology, radiation therapy, ultrasound technology, dental hygiene, surgical technology, medical assistant technology, cardiorespiratory care, and other related fields may combine their training with classes offered by Siena Heights for Bachelor of Applied Science degrees in allied health. Siena awards credit based on registry or licensure, work experience and health care training.

## B.A.S. in Trade and Industrial

Many technically oriented Associate of Applied Science degrees may be accepted as bachelor's degree majors. Siena also awards credit for successful completion of programs at many accredited technical and trade schools. Graduates pair their training with classes offered by Siena for the B.A.S. with majors such as nuclear technology, legal office systems, electronics technology, drafting \& design technology, industrial maintenance technology, plastics technology, machine tool technology and many more.

## The Personal Touch

You've probably already achieved a lot, whether at school, work, in the community or military. Siena Heights University lets students build on that foundation. Known as Michigan's most transfer-friendly college, Siena Heights recognizes a range of traditional and nontraditional credit, including college study, technical or occupational training, professional experience and prior learning. Credit may be awarded for coursework completed at accredited colleges and universities as well as approved technical, trade and allied health schools.

## Meeting Adult Needs

Siena Heights University has a flexible, innovative approach to education that offers:

- evening and weekend classes
- a variety of credit options, including CLEP, military training and possible credit for college-equivalent learning
- a convenient location
- individualized academic advising

As a result of earning degrees from Siena, many graduates have improved their employment status with new jobs, promotions, pay raises and career changes. Many have also gone on to successfully complete graduate programs.

## Graduation Requirements

To receive a bachelor's degree from Siena Heights University, a student must successfully:

- complete a total of 120 semester hours; 30 semester hours must be completed with Siena Heights;
- complete a minimum of 30 credit hours at the 300 / 400 level, including at least 15 hours of upper-level coursework earned at Siena Heights;
- complete an approved major;
- fulfill the general education core requirements;
- demonstrate proficiency in mathematics and writing;
- maintain a grade point average in coursework required for the major at Siena Heights;
- apply for graduation.


## Cost

Financial assistance is available through federal and state aid programs. Students may also be eligible for tuition reimbursement from their employers. For information, contact the Siena Heights University Financial Aid Office at (800) 521-0009, extension 7130, or (517) 264-7130.

## Admissions

Prospective students may submit an application form on-line and should request official transcripts from high school and all postsecondary institutions attended, including trade and technical schools. A Siena Heights advisor will help determine if additional information is needed to ensure maximum transfer credit.

It is the policy of Siena Heights University not to discriminate on the basis of race, color, national origin, age, handicap, sex, religion, or sexual orientation.

## For More Information

We look forward to working with you! Please contact our office for more information.
Siena Heights University at Lake Michigan College
2755 East Napier Avenue, Room C-204
Benton Harbor, M1 49022
Phone: (269) 927-6711 or
(800) 252-1562 ext. 6711

Fax: (269) 927-861
www.sienahts.edu

Spring Arbor
U N I V E R S I T Y

## School of Graduare \& Professional Studies

## The Bachelor of Arts in Management \& Organizational Development

The Bachelor of Arts in Management and Organizational Development is designed for adults seeking a future in business and public administration. If you're already in this field, it's a stepping-stone toward advancing your career. If you're building an educational foundation, it's the ideal preparation for graduate studies in management, human resources and related fields.

By choosing to earn your bachelor's degree from Spring Arbor University you're choosing:

- Classes one night a week - really

No extra lectures or study sessions in between - so you can consistently keep your other commitments.

- Face-to-face learning

Spring Arbor University's emphasis on writing and communication means your computer won't be your only teacher. You'll also learn from your professors and your classmates.

- A fast track to graduation

The management and organizational development program can be completed in 61 sessions.

- Service and convenience

We deliver your textbooks. Parking is always convenient. Advisors help you plan for classes. You never wait in line for registration. Spring Arbor University helps you with all the details, large and small.

- Credit for prior learning

Credit may be earned for documenting college-level learning from professional training or personal life experiences.

- An education grounded in faith

Our Christian commitment means that questions of ethics, religion and faith are welcomed as an essential part of a meaningful education.

- A history of excellence

Founded in 1873, Spring Arbor University began Michigan's first adult studies programs in the early 1980s. Since that time, we've helped thousands of working adults like you get more out of life.

In short, Spring Arbor University's accelerated bachelor's degree programs allow you to make the most of your time, your money, your career and your life.

Call 877.MORELIFE today to find out more.

## Admission and Financial Aid

Admission to this program requires prior completion of 58 semester hours. Hours can be earned through testing and approved courses taken at other accredited institutions. For more application and credit transfer information, contact one of our admissions specialists.

When you enroll in this program, you may qualify as a full-time student, even though you're only attending classes one night a week. To apply for financial aid through the Michigan Tuition Grant, Pell Grant, and other forms of grants and scholarships, complete the Free Application for Federal Student Aid (FAFSA) form.

For more information on how to apply for financial aid, contact a site near you, or visit www.arbor.edu/morelife.

## Don't just get your education. Live it.

Relevant to career, family and faith alike, the courses you'll take in the Bachelor of Arts in Management and Organizational Development program are as practical as they are meaningful.

- Psy 310 - adult development \& life planning Stresses the experiential nature of nontraditional education and adult development theory
- Wrt 312 - critical analysis \& research writing Focuses on critical thinking, academic expository and analytical writing
- Mod 437 - organizations \& environments Concentrates on structure and design of organizations with primary emphasis on the organization as an open system
- Mod 452 - group \& organizational behavior

Studies group behavior and how groups function in an organization

- Mod 343 - individual in the organization

Centers on organizational behavior as it relates to individual motivation, productivity and performance

- Ids 300 - biblical perspectives Fosters knowledge and understanding of the literature and history of the Bible, and the integration of faith, living and learning
- Mod 349 - statistical methods \& research Focuses on identifying and measuring objectives, collecting data, working with significance levels, analyzing variance and constructing questionnaires
- Mod 432 - human resource management \& supervision Assists students in understanding and applying principles and practices related to human resources issues and functions
- Mod 368 - management of financial resources Assists students in understanding basic concepts of financial management
- Mod 402 - principles of leadership \& management Examines leadership studies and theories of management in a historical context
- Ids 400 - values: personal \& social Explores values through readings and analyses of the workplace
- Mod 460 - research project

Combines research and practical implementations of theories, concepts and problem solving in the context of the student's occupation or avocation

Spring Arbor University is accredited by the higher learning commission.

## Management and Organizational Development

The management and organizational development (MOD) program provides students with expertise in management, human dynamics, and organizational development for business and public administration.
Using a systems approach to the problems, principles and practices of management, graduates of the program will be able to incorporate conceptual and theoretical knowledge into practical work environments.

## Positions for MOD Graduates

Account Executive
Air Traffic Control Manager
Camp Program Director
Controller
Coordinator
Crisis Telephone Consultant
District Service Manager
Financial Aid Director
Fire Chief
Human Resources Manager
Interoffice Capacity Planner
Maintenance Manager
Project Manager
Property Manager
Retention Specialist
Staff Accountant
Test Engineer
Veteran's Affairs Coordinator

## Employers of Spring Arbor University's MOD

Amway Corporation
Blue Care Network
Bosch Corporation
Chrysler Corporation
Eaton Corporation
Electronic Data Systems
General Motors
GTE
Haworth
Kellogg Community College
Nippondenso
Parker Industries
Pfizer Corporation
Physicians Health Plan
Qualified Personnel
Spartan Corporation
State Government
Steelcase
U.S. Government

Whirlpool

## Graduate Programs (in which MOD graduates enrolled)

Accountancy
Business Administration
Counseling
Divinity
Educational Administration
Management
Organizational Management
Public Administration
Science in Administration
Social Work

This information is based on a survey of Spring Arbor University MOD graduates. Careers are not limited to the above list. Some positions may require additional educational background.

Call Today 877.MORELIFE
www.arbor.edu/morelife

# Western Michigan University-Southwest at Lake Michigan College 

Lake Michigan College and Western Michigan University have partnered to bring bachelor degree programs to LMC students. WMU-Southwest is located on LMC's Napier Avenue campus and is housed in a state of the art 45,000 square foot facility. If you are pursuing a bachelor's degree in Business Administration, Elementary Education, or Manufacturing Engineering, you will be able to take your first two years of courses at Lake Michigan College (with LMC tuition rates), and then seamlessly move into junior and senior level courses at WMU-Southwest on the Lake Michigan College campus.

## About Western Michigan University

Western Michigan University, whose main campus is located in Kalamazoo, Michigan is a public, national university committed to excellence in graduate and undergraduate education. Founded in 1903 as a "normal" school and now enrolling more than 25,000 students, it is classified as "Doctoral/ Research universities - Extensive" by the Carnegie Commission on Higher Education.

Extended Universities Programs (EUP) supports the delivery of the University's academic programs, to provide educational opportunities across Michigan and beyond, through six branch campuses (Battle Creek, Grand Rapids, Lansing, Muskegon, Southwest for the St. Joseph and Benton Harbor region, and Traverse City). Through these campuses, EUP promotes advanced lifelong learning in Michigan and the region by supporting faculty in their planning and delivery of undergraduate and graduate programs, and by providing a strong link between campus units and off-campus students. In addition, EUP delivers e-learning courses, offering online semester-based and open learning courses (that provided flexible course completion timelines).

## Undergraduate Degree Programs

Students can begin course planning by working closely with the counseling office at LMC and meeting with WMU advisors at the Southwest Campus. Knowing how a course transfers from LMC toward degree requirements at WMU will help applicants make a smooth transition into a baccalaureate transfer program.

## Taking LMC and WMU Courses Concurrently

You can be enrolled at LMC and WMU at the same time as long as you meet the pre-program requirements. By being dually enrolled, you can begin work on your professional program at WMU while still finishing some of your required LMC courses. Once you are admitted to a WMU degree program and have enrolled in Southwest Campus courses, you may also take courses on the WMU main campus, or at any of the WMU branch campus locations as well as online.

## Business Administration

The Business Administration transfer program leads to a Bachelor of Business Administration degree. Students receive a management major with a general business minor. The curriculum is designed to prepare students to understand and apply global business knowledge and diverse perspectives in their careers. The program is offered part-time in the evenings. The WMU Haworth College of Business is accredited by the Association to Advance Collegiate Schools of Business (AACSB) for more than 25 years. To earn the B.B.A. degree, a minimum of 124 credit hours are required.

## Elementary Education

The Elementary Education transfer program leads to a Bachelor of Science degree. The curriculum is designed to prepare students to assume teaching responsibilities in grades $\mathrm{K}-5$ in all subjects, grades $6-8$ in second and third minors, and grades K-8 in all subjects when teaching in a self-contained classroom. It is a part-time or full-time, day or evening program. Students receive a minor in elementary education and choose two additional minors. The choice of minors includes Integrated Science, Elementary Language Arts, Elementary Social Studies, and Elementary and Middle School Mathematics (with some math courses required at Kalamazoo campus). To earn the B.S. degree, a minimum of 122 credit hours are required.

## Manufacturing Engineering

The Bachelor of Science in Engineering (Manufacturing) degree at WMU is one of the few manufacturing engineering degrees offered in the nation. It is only offered through the Extended University Programs and is not available at the WMU main campus. The program is designed to develop engineers who have the ability to take a product or concept and design the manufacturing processes. The program also prepares students for diverse roles in the manufacturing enterprise by providing knowledge of several engineering disciplines, including mechanical, electrical and industrial engineering. The program consists of 128 credit hours.

## Graduate Degree Programs

WMU offers graduate classes for applicants with a bachelor's degree who wish to earn a graduate degree or a certificate. In addition to a degree program application, some students elect to apply for Non-Degree Status (NDG) which allows applicants to take classes without pursuing a degree program.

## Educational Leadership

The Department of Educational Leadership, Research and Technology offers a Master of Arts in Educational Leadership, with a concentration in K-12 School Principal Leadership, available at Southwest. Some courses in K-12 Curriculum and Leadership, Organizational Leadership, and Higher Education \& Student Affairs Leadership concentrations are also available at the Southwest Campus. This program prepares leaders for educational organizations, including K-12 schools, higher education, governmental agencies and professional associations.

## Education - Literacy Studies

Graduate programs in literacy prepare educators for advanced positions in education. The Master of Arts in Literacy Studies provides a comprehensive professional development program to meet the need in today's classrooms for continuous K-12 literacy instruction based on current theory, research and best practices. The program is designed to enhance the knowledge and skills of reflective practitioners, as they become leaders such as Reading Specialists, Literacy Coaches, innovative classroom teachers, researchers and advocates. Most of the courses required are offered at Southwest Campus and can be completed in 30 credit hours.

## Education - The Practice of Teaching

The Master of Arts in the Practice of Teaching is a 30 -hour degree structured in a manner that allows teachers to customize their program of study to meet individual needs and professional goals. This flexibility allows students to focus their program toward an academic content area related to their own teaching position (such as science, mathematics, language arts, etc.), or to an area that addresses other personal, academic and professional interests (fine arts, leadership, foreign language, psychology, etc).

## Education - Practice of Teaching: Urban Education

The Urban Education specialization within the Practice of Teaching brings together students from WMU campuses in Battle Creek, Muskegon, and here at Southwest. The regional program enables students to engage with, relate to, and learn from individuals from different school systems across West Michigan, allowing for a significant and powerful educational experience. It is designed for $\mathrm{P}-12$ teachers and instructional leaders who want to explore the socio-cultural contexts of schooling, diversity, multiculturalism, issues of race, class, gender, and social justice. This program requires completion of 30 credit hours.

## Engineering Management

The Master of Science in Engineering Management was named the "Best Engineering Management Program" in 2006 by the American Society for Engineering Management. The program is the art and science of planning, organizing, allocating resources and directing and controlling activities which have a technical component. This degree "bridges the gap" between engineering and management. It focuses on leadership and the skills necessary to manage.

## Human Resource Development (Cohort)

The Master of Arts in Human Resource Development encompasses a variety of disciplines that involve the study of learning, performance, and change in diverse settings and organizations. The program is intended for students seeking professional positions in the interdisciplinary field of human resources development, which includes practice in such areas as training and development, performance technology, instructional design and technology, and organization development. This is a cohort program as enrollments allow.

## Social Work (Cohort)

The Master of Social Work (MSW) program at the Southwest Campus is offered as a cohort program as enrollments allow. It is nationally accredited by the Council on Social Work Education. The courses prepare students for direct-service and leadership positions in the field of social welfare.

## Graduate Certificates

18-Hour Professional Teacher Development
This program enables a teacher to complete the requirements for the Michigan Professional Education Teaching Certificate without pursuing a Master's degree or a new endorsement. Additionally, specific professional development goals or areas of interest may be explored, with advisor approval. If later the teacher decides to pursue a master's degree, some of the coursework may apply towards credit hours in the degree program.

## Excellence in Education

Western Michigan University strives to serve its students with an education of excellence obtained from degree programs that are nationally recognized and certified. The Southwest Campus additionally serves its students with evening and weekend courses to meet the needs of the area's working adults. Most student services, such as admissions and advising, are offered at the Southwest Campus.

## Cost

Financial assistance is available through federal and state aid programs. Students may also be eligible for tuition reimbursement from their employers. For information, contact the Western Michigan University Financial Aid office at (269) 387-6000 or visit their website at www.wmich.edu/finaid.

## Financial Aid Consortium

The Financial Aid Consortium Agreement allows a student to receive financial aid for courses taken at Western Michigan University and Lake Michigan College simultaneously. It enables students to be enrolled at WMU and LMC and receive financial aid for all credit hours in which they are enrolled at the two educational institutions. The agreement ensures that there is no lapse or decrease in financial aid coverage should a student wish to begin taking courses at WMU prior to completing their entire curriculum at LMC. Visit www.eup.wmich.edu/advising/Financial Aid/ or speak with your financial aid advisor for more information.

## Admissions

Prospective students may submit an application form online at www.wmich. edu/apply or by bringing the application into the Southwest Campus with the non-refundable application fee. Students must request official transcripts from all post-secondary institutions they have previously attended to be sent to:

Western Michigan University<br>Office of Admissions<br>1903 W. Michigan Avenue<br>Kalamazoo, Michigan 49008-5211<br>For More Information<br>Please call or write Western Michigan University - Southwest Campus for more information:

Western Michigan University - Southwest
2785 E. Napier Avenue
Benton Harbor, MI 49022
Phone: (269) 934-1500 • Fax: (269) 934-1505
sw.wmich.edu
www.smich.edu
Western Michigan University - South Haven
125 Veteran's Boulevard
South Haven, MI 49090
(269)637-7506 Fax (269)637-7514
www.shmich.edu


## Disclosure to accreditation agencies

All complaints submitted in writing, signed by a student and addressed to or submitted to an institutional officer may be shared with any of the several agencies that accredit the College or its programs. Individual names will not be shared without the express permission of the complainant.

## Procedure for formal grade appeals

Students who desire to appeal a grade are to follow this procedure in this sequence.
(1) Instructor. A student concerned about a grade should immediately discuss the issue with the instructor who awarded the grade. This appeal to the instructor is to occur just as soon as possible and certainly within ten days of learning of the grade. The instructor will meet with the student, consider all of the issues, and then render a decision.
(2) Department Chair. If, after discussion with the appropriate instructor, the dispute is not resolved, the student may appeal to the appropriate department chair within ten days of notification of the instructor's decision. The department chair will meet with the persons involved, attempt to resolve the issue, and then render a decision which will be communicated to the student in writing.
(3) Instructional Dean. If, after discussion with the department chair, the dispute is not resolved, the student or faculty member may, within ten days of notification of the department chair's decision, appeal to the appropriate instructional dean. The Dean will meet with the persons involved in an attempt to resolve the issue and then render a decision which will be communicated in writing. The decision of the Dean is final.

If a student appeals the final grade for a course, the formal appeal is to be completed within the semester immediately following the one in which the course grade was received. Grades older than one calendar year may not be appealed.

## Academic and College Policies Academic Complaint Procedures

 Procedure for general and informal issues Students having concerns, problems or complaints of a general instructional nature (e.g., faculty, course offerings, procedures) should immediately confer with the appropriate instructor involved in an effort to resolve the issues informally.If, after working with the appropriate faculty member, the student's concerns or problems are not resolved, the student should then confer with the appropriate department chair in an effort to find a resolution.

If, after working with the appropriate department chair, the student's concerns are not resolved, the student should discuss the issue with the appropriate instructional dean, whose decision is final.

## Grade appeal decision guidelines

When appealing a grade, the student is responsible for providing factual information and documentation to support the need to alter or modify the grade. If appealed beyond step (1) above, the department chair, and Dean shall carefully consider whether or not the grade and the decisions leading up to it (a) were within the scope of the authority of the individual making the decision, (b) were done in accordance with established policies or procedures, and (c) were neither arbitrary nor capricious.

## Other issues

The above procedures exclude issues related to sexual harassment, civil rights, Title IX, and disability concerns. Problems in these areas should be discussed with the director of Human Resources.

## Academic Intervention

Academic Intervention is a practice used by Lake Michigan College to assist students with successfully maintaining required Academic Standards of Progress. Several intervention strategies are proactively employed by the College, including Supplemental Instruction, Freshman Seminar, and a tutoring program. You should talk with your academic advisor to access these services.

If your cumulative GPA does fall below the level required to maintain satisfactory academic standing, you will be subject to more aggressive intervention strategies, including being placed on Academic Probation or Academic Dismissal from the College for one or more semesters.

Students placed on academic intervention for any semester will be required to see the At-Risk Advisor before the end of the drop-add period of that semester. Authorization from that advisor will be required to register for or remain in classes for which the students have already registered.

## Academic Probation

Students placed on Academic Probation for any semester will be required to see the At-Risk Advisor prior to registering. The At-Risk Advisor will develop a written plan of help for the student. This plan will be discussed with the student during their meeting with the At-Risk Advisor.

## Students on Academic Probation will be required to:

1. Meet with the At-Risk Advisor at least three times during that semester.
2. Limit their enrollment as described in the student's plan of help. A study skills class is strongly recommended.
3. Obtain a grade of " C " or better for each class in which they are enrolled.

Students who fail to meet these requirements will be subject to Academic Dismissal.

## Academic Dismissal

If a student who has been placed on Academic Probation does not meet the three requirements previously listed, they will be prohibited from enrolling in classes at LMC for one semester. This semester of non-enrollment must be the following Fall or Winter semester. At the time they return to LMC, they will automatically reenter the Academic Probation program and be expected to accomplish all requirements as stated in items 1 through 3 above.

## Academic intervention advisors will:

1. Meet with the student at least three times during the semester in which they have been placed on Academic Probation.
2. Provide the student information about sources of help and assist them in accessing resources that are deemed most beneficial. 3. Provide students information on withdrawing from classes and other information and/or material appropriate for enabling them to pursue their educational goals more successfully.

## Appeal Process

Students who have been notified of their academic dismissal from Lake Michigan College may appeal in writing to the Executive Dean of Student Services following the college's Due Process procedure.

## Academic Standards of Progress

Lake Michigan College is committed to helping students meet their educational goals. When students are not making acceptable academic progress, the College will provide positive intervention strategies designed to help students evaluate their individual situations and return to satisfactory academic standing. Intervention strategies are detailed in the section, "Academic Intervention." Students must maintain a cumulative grade point average above the ranges detailed below to be considered in good standing.

Students will have their cumulative GPA calculated at the end of each semester (Fall, Winter, Spring and Summer) and, if it falls within the range as indicated in the table below, they will be placed on academic probation and will be notified in writing by Student Services.

| Credit hours attempted | GPA Range |
| :--- | :--- |
| 6 to 15 | 1.00 to 1.50 |
| $16-30$ | 1.25 to 1.75 |
| 31 or more | 1.5 to 1.99 |

Students placed on academic probation will be required to meet with the At-Risk Advisor to review their progress. If a student has pre-registered, it will be necessary to gain the advisor's approval to remain in the classes for which he or she has pre-enrolled. Students whose cumulative GPA falls below the ranges indicated above will be required to follow a prescriptive plan developed by the At-Risk Advisor.

Note: Students on Financial Aid, participating in intercollegiate athletics, and/or enrolled in Health Science programs and/or other programs with specific criteria different from this standard will be required to meet the academic standards of progress for those programs as outlined in the College catalog and in program-specific student handbooks.

## Acceptable Use for Technology Resources

Lake Michigan College has made available to its students, faculty, staff, and guests a variety of technology resources for the pursuit of supporting academic programs and operational goals.

Technology resources include desktop computers, laptops, internet access, Local Area Network
(LAN), Wide Area Network (WAN), wireless network access, printers, data projectors, email, electronic media, electronic records, phones, video, audio, scanners, software applications, photocopiers, cameras, digital signs and portable digital devices.

The use of technology resources at LMC is a privilege and must fall within acceptable use as outlined in the rules of this policy. LMC has the right to monitor the use of the technology resources. LMC may revoke individual access any time appropriate use is violated. Nothing in this policy shall preclude separate "conditions of use" from being implemented by units of LMC or by LMC with respect to portions of its electronic technology resources. Such conditions of use shall be deemed to supplement, rather than replace, this policy.

LMC reserves the right to log internet use and to monitor electronic mail space utilization by users. This means that there should be no expectation of privacy with respect to use of the computer systems. LMC may, at its discretion, review the sites and programs accessed by students, faculty, staff and guests, including the messages sent or received. Such monitoring may be conducted without notice.

Acceptable use must be legal; ethical; show respect for intellectual property and an individual's right to privacy, freedom from intimidation, harassment and unwarranted annoyance; reflect academic honesty; and show restraint in the consumption of shared network resources.

In addition to the conduct set forth below, LMC specifically deems as just cause for disciplinary action up to and including nonreappointment, discharge, dismissal, suspension, expulsion, termination and/or legal action for:

1. Violation of copyright, patent, license agreement, or contract.
2. Interference with the intended use of technology resources by denial of service attacks or other hacking activities.
3. Any attempt to gain unauthorized access to information.
4. Any unauthorized invasion (or attempted invasion) of the privacy of others.

The following activities are prohibited using LMC's technology resources:

1. Violating any federal, state, local, or common law, or statute.
2. Violating any libel or slander laws.
3. Installing institutionally owned software on personally owned computer(s) unless the institution's software agreement with the licensor permits such use.
4. Sharing account numbers or passwords with someone else.
5. Publicly disclosing or violating the privacy of an individual by sharing personal, confidential or private information such as home addresses, phone numbers, student id's, etc.
6. Communicating a false identity or that they are representing someone else.
7. Using the system to obtain or to disseminate pornography as it is defined by the United States Supreme Court.
8. Using technology for private business, or product advertisement or political lobbying.
9. Seeking to gain unauthorized access to computing resources or data.
10. Loading software on College owned computers unless approved by Information Technologies.
11. Using College owned facilities in violation of current copyright laws, such as copying software for which one is not the registered owner, or by providing copies of copyright protected software to others.
12. Engaging in activities that damage or disrupt hardware, software, or communications, such as virus creation and propagation, wasting system resources, and overloading the network with excessive data requests.
13. Transmitting or making accessible offensive, annoying, or harassing material, such as broadcasting unsolicited messages (SPAM) or sending mass emails.
14. Intentionally accessing or damaging systems or information or using any system for illegal activities.

The College seeks to protect the civil, personal, and property rights of those who use its technology resources, as well as those whose student or employment records are maintained on its computing systems. Any unlawful attempt to access these resources is a serious offense, which will be addressed by the College's disciplinary or legal action as outlined in the Lake

Michigan College's Policies and Procedures and the Student Code of Conduct. Such conduct may also be subject to criminal or civil legal action and may be reported to governing authorities as required by law.

## Amnesty of Semester Policy

Amnesty of Semester is the removal from consideration for student grade point average, program completion and graduation, all academic classes and the grades received for such classes during the college semester(s) for which amnesty is granted.

Amnesty of Semester, if granted, applies only to Lake Michigan College; there is no guarantee expressed or implied that Amnesty of Semester will be recognized by any other institution.
A. Any student who has been enrolled in academic classes may apply for Amnesty of Semester.
B. Amnesty of Semester may be requested for one of the following: 1. A maximum of the first eighteen (18) semester hours of credit earned or failed during the first two (2) consecutive semesters of attendance at Lake Michigan College (may not use partial semester); or 2. Any single semester of enrollment at Lake Michigan College totaling not more than 18 credit hours.
C. A minimum of one calendar year must elapse between the semester(s) being considered for Amnesty of Semester and the granting of the request.
D. Amnesty of Semester will not be granted for a partial semester(s) and, if granted, shall apply to all credits earned or failed taken in the semester(s) for which Amnesty is granted, regardless of the grade received.
E. Amnesty of Semester if granted, results in none of the affected coursework being counted for admission to restricted programs, Financial Aid, graduation, and/or meeting program requirements at Lake Michigan College.
F. Amnesty of Semester does NOT remove any course/grade at Lake Michigan College, which would normally be on a transcript, from the academic transcript. Any semester(s) for which Amnesty is granted shall be so identified on the transcript.
G. A student may be granted Amnesty of Semester only once at Lake Michigan College; Amnesty of Semester is final and cannot be revoked or rescinded by the College or the student.

## Attendance - Class

It is consistent with the College philosophy that regular class attendance is necessary if the student is to receive maximum benefit from the course. Students are expected to be fully prepared and to attend every class and laboratory period for which they have registered. Absences should be explained to the instructor and must be made up by the student in a way satisfactory to the instructor within a reasonable period of time after returning to class. Attendance is a requirement for most financial aid awards.

There are special events and circumstances that may make it desirable that students miss one class in order to attend the special session of another class. However, if this is the case, attendance at the special session should be optional. The class originally scheduled for the time period involved has priority. Students, after having consulted with the instructors involved, must make the ultimate choice regarding which class session or event to attend. Although circulation of lists of students expected to attend a special event is desirable to notify colleagues of an impending conflict, unless signed and approved by the dean, such a list does not constitute an excused absence. In the case of an excused absence, students should be given an opportunity to make up graded, in-class exercises that were missed. Graded materials done outside of class, but due on the day missed, should be completed prior to an excused absence.

If there are recurring special events, such as athletic contests, in which attendance by students will be required, students and advisors should not schedule any classes that conflict with the special events. If occasional conflicts cannot be avoided, contacts should be made as early as possible with all involved instructors so that adequate planning can be made to avoid putting students in a position where they will be penalized for non-attendance.

A student who claims illness as a cause for excessive absence must be prepared to present a statement from the attending physician. If absences are incurred at the end of the semester or during the final examination, a grade of Incomplete may be given.

Two weeks of consecutive absences or failure to attend 20 percent of the scheduled semester contact hours for a class makes a student subject to withdrawal from the class at the recommendation of the instructor. Students in the Nursing and Radiologic Technology programs are subject to withdrawal from class if absences exceed one week's class and clinical hours. Technical classes are also included where hazardous conditions may cause injury to students or damage to equipment through misuse. Lake Michigan College will comply with legal requests of governmental and private agencies for information on student attendance.

## Auditing Courses

To AUDIT is to take an academic course for NO CREDIT. Some of the reasons for auditing are personal exploration, enjoyment or gaining insight into a new subject.

A student wishing to attend a credit course on a no-credit basis may register to audit the course. However, when openings in a class are limited, preference shall be given to students enrolling for credit. Tuition is paid at the same rate as for a credit course and the same attendance policy applies. Students receiving Financial Aid or Veteran's Benefits will not be certified to receive aid or benefits for audited courses. A student may change from audit to credit and vice versa only during the Add/Drop period.

## Children on Campus

Children under age 16 not enrolled in a College class must be under the direct supervision of a responsible adult any time they are on College property. Students are not to bring children to class unless the child's attendance is part of the student's responsibilities in completing a course assignment or the student receives permission from the instructor.

Students may use the Kidzone Preschool \& Child Care Center, L.L.C. on the Napier Avenue Campus and the South Haven Campus for child care needs. Kidzone is privately owned and operated and is not affiliated with Lake Michigan College.

## Code of Conduct Policy to Support Drug-Free Workplace <br> The welfare and success of Lake Michigan College depends on the

 physical and psychological health of all students and employees. The abuse of drugs and alcohol poses a serious threat to the College, its students and its employees. Commonly abused or improperly used drugs and substances include, among others, alcohol, pain killers, sedatives, stimulants and tranquilizers as well as marijuana, cocaine, heroin and other illegal drugs.Lake Michigan College does not encourage or discourage alcohol consumption for those individuals who are of legal age in the state of Michigan. However, Lake Michigan College requires that when alcohol is consumed on the premises, it be utilized in a socially responsible manner and only in those public situations previously approved by the College.

It is the joint responsibility of the College, its students and employees to follow the policies and procedures developed to support a safe, drug-free environment. Be it known, therefore, that Lake Michigan College will make a good faith effort to continue to maintain a drugfree work place through the implementation of the following policy. The manufacture, distribution, possession, unauthorized use or sale of any federally controlled substance and/or alcohol on College premises or while engaged in College activities is prohibited and will be subject to discipline, including expulsion. The College will establish such procedures as it finds necessary to effectively enforce this policy. The College provides confidential help with alcohol or drug problems through referrals to support groups and community agencies. Students are encouraged to seek assistance before the problem affects judgment, performance or behavior. Contact a College counselor for assistance.

## Computer Code of Conduct

Proper Use of Information Resources, Information Technology, and Networks at Lake Michigan College.

It is the policy of Lake Michigan College to maintain access for its community to local, national and international sources of information. In this environment, access to knowledge and the sharing of information is encouraged.

It is the policy of the College that information resources will be used by members of its community with respect for the public trust through which they have been provided and in accordance with policy and regulations established and updated by the College and its operating units. The information resources are to be used for purposes that are consistent with the instructional, research and administrative processes used at Lake Michigan College.

The College is responsible through a combination of federal, state, local laws and the regulations of various agencies to establish and maintain the technological environment at the College at a level that protects the privacy of its constituents and is resistant to disruption.

Access to networks and information is a privilege and must be treated as such by all users of these systems. Any member of the College community who alters, destroys, dismantles, disfigures or without permission accesses or uses information resources including those items owned by third parties has engaged in unethical and unacceptable conduct.

The College characterizes as unethical and unacceptable and just cause for disciplinary action any activity through which an individual:

1. Violates College or third party copyright or patent protection and authorizations, including license agreements and other contracts,
2. Interferes with the intended use of the information resource,
3. Seeks to gain or gains unauthorized access to information resources,
4. Alters, destroys, dismantles, disfigures, prevents rightful access to or otherwise interferes with the integrity of networks or information resources,
5. Invades the privacy of individuals using the College's information resources and networks,
6. Creates a situation that results in inefficient or wasteful use of the College's information resources and networks.

Nełworks and information resources at Lake Michigan College include information in electronic or audiovisual format or any hardware or software that makes possible the storage and use of such information. Examples are recorded magnetic media, photographs and digitized information such as that found in libraries.

## Credit-Hour Limit

No student may take more than 18 semester hours without special permission from the appropriate dean. Permission may be granted in those instances where students have a 3.00 (B) cumulative GPA or better. During the Summer or Spring sessions, a student may not exceed a maximum of eight semester hours without permission from the appropriate Dean.

## Dean's List

A Dean's List is published at the completion of each semester. To be named to the Dean's List, a student must be enrolled full time and complete a minimum of 12 semester hours of 100-level courses or above with a 3.50 or higher grade point average during the semester. Grades for remedial courses (099 or below), W, S and $U$ will not be computed in the Lake Michigan College grade point average. Presidential Scholars are those students who earn a GPA of 4.0 during a semester.

## Graduation with Honors

The cumulative GPA needed to qualify for graduation honors will be as follows:

| Highest Honors | 4.00 |
| :--- | :--- |
| High Honors | 3.75 |
| Honors | 3.25 |

A student must have completed at least 30 semester hours at Lake Michigan College with the appropriate GPA prior to the semester of graduation to qualify for Academic Recognition during the Commencement Ceremony. The Honors status identified at the time of application for Graduation for eligible students will be used for purposes of the Commencement Ceremony only.

## Diversity

The Lake Michigan College Board of Trustees has reaffirmed the College's continuing commitment to equal opportunity, nondiscrimination and affirmative action. Lake Michigan College is an equal-opportunity institution, affording enrollment, employment and services without distinction on the basis of age, color, height, weight, creed, disability, marital status, sexual orientation, national origin, political affiliation, race, religion or sex. For more information, contact the Affirmative Action Officer.

## Electronic Devices in the Classroom

Recording devices, cellular phones, pagers, personal data devices, MP3 players, CD players, radios, and similar devices may be used in the classroom and laboratory facilities only with the specific permission of the instructor or the lab administrator.

## Equal Opportunity for Disabled Students

According to Section 504 of the Rehabilitation Act of 1973, no qualified disabled person shall, on the basis of the disability, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program or activity that receives or benefits from Federal financial assistance. Students must register with the office of Special Populations to receive assistance and request academic accommodations.

## GRIEVANCE PROCEDURES For: Title VI of The Civil Rights

 Act of 1964, Title IX of The Education Amendments of 1972, and Section 504 of The Rehabilitation Act of 1973Section I. If any person believes that Lake Michigan College or any part of the College organization has inadequately applied the principles and/or regulations of Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and/or Section 504 of the Rehabilitation Act of 1973, he/she may bring forward a complaint, which shall be referred to as a grievance, to the College Affirmative Action Officer at the following address: Director, Human Resources \& Affirmative Action Officer, Lake Michigan College, 2755 E. Napier Ave., Benton Harbor, MI 49022-1899.

Section II. The person who believes he/she has a valid basis for grievance shall discuss the grievance informally and on a verbal basis with the Affirmative Action Officer, who shall in turn investigate the complaint and reply with an answer to the complainant. He/she may initiate formal procedures according to the following steps:

Step 1. A written statement of the grievance signed by the complainant shall be submitted to the Affirmative Action Officer within five (5) business days of receipt of answers to the informal complaint. The Affirmative Action Officer shall further investigate the matters of grievance and reply in writing to the complainant within five (5) business days.

Step 2. If the complainant wishes to appeal the decision of the Affirmative Action Officer, he/she may submit a signed statement of appeal to the College President within five (5) business days after receipt of the Affirmative Action Officer's response. The President shall meet with all parties involved, formulate a conclusion, and respond in writing to the complainant within ten (10) business days.

Step 3. If the complainant remains unsatisfied, he/she may appeal through a signed, written statement to the Board of Trustees within five (5) business days of receipt of the President's response in Step 2. In an attempt to resolve the grievance, the Board of Trustees shall meet with the concerned parties and their representative within forty (40) days of the receipt of such an appeal. The complainant, at his or her discretion, may request a closed meeting with the Board. A copy of the Board's disposition of the appeal shall be sent to each concerned party within ten (10) days of this meeting.

Step 4. If at this point the grievance has not been satisfactorily settled, further appeal may be made to the Office of Civil Rights, Department of Education, Washington, DC 20201.

Inquiries concerning the non-discriminatory policy may be directed to Director, Office for Civil Rights, Department of Education, Washington, DC 20201. The College Affirmative Action Officer, on request, will provide a copy of the College's grievance procedure and investigate all complaints in accordance with this procedure. A copy of each of the Acts and the regulations on which this notice is based may be found in the College Affirmative Action Officer's office.

## Grading System Using Honor Points

An " $A$ " grade carries four honor points for each hour of credit; " $B$ " grade, three honor points; " $C$ " grade, two honor points; " $D$ " grade, one honor point; "E" grade, no honor points. Plus and minus signs are not used on final grades or transcripts.

## Grading Policies

## Grades

1. A, B, C, D, E, IP (In Progress), I (Incomplete).

Students who have completed all course requirements as defined by the instructor will be issued grades of A, B, C, D, or E. Students who do not complete the semester, but whose standing in the course is passing, whose extenuating circumstances are beyond their control, and whose unfinished work is minimal, may be issued grade of "1" (Incomplete). Such a grade must be removed as arranged with the instructor, but not later than the last day of classes one year later, or it will be treated as a grade of "E." An " $I$ " is computed in the GPA as an " $E$ " and may affect financial aid eligibility. An "IP" (In Progress) grade will be assigned to students who are enrolled in open entry/open exit (oe/oe) classes and other classes that cross semesters, and have not completed their assigned work at the end of the semester in which they are enrolled. Work must be completed by the end of the following semester. Example: Fall, by the end of Winter. Winter, by the end of Summer. Spring/Summer, by the end of Fall. An IP grade will not be computed in the student's GPA.
2. All other grade changes must be made within one semester of their issuance.
3. W

Students who withdraw from a course after the $80 \%$ completion of course MUST receive instructor approval. A student who does NOT withdraw will receive the grade earned.
4. (Satisfactory); (Unsatisfactory).

Grades of " S " and " U " are used only in continuing education courses.
5. Grade Point Average (GPA). A, B, C, D, E, and I will be computed by dividing GPA points by GPA hours. Grades for remedial courses (099 and below), IP, W, $S$ and $U$ will not be computed in the Lake Michigan College grade point average.

## Contact the Records \& Registration office for more information/explanation on how to add, drop or withdraw from a class, see the class schedule.

## Guest Students

Students who attend another college or university other than Lake Michigan College may enroll in LMC course work as guest students. Those wishing to enroll as guests at Lake Michigan College must submit either the LMC Guest Student Application or the MACRAO approved Michigan Uniform Undergraduate Guest Student Application prior to registration. Guest students are afforded all the rights and responsibilities of matriculated Lake Michigan College students except they are not eligible for financial aid.

Guest student status will be granted to individuals who attend other colleges and universities upon completion of the Guest Student Application. Guest students may enroll in course work for which all stated pre-requisities have been met.

## Privacy Act - FERPA

Pursuant to the Family Education Rights and Privacy Act (FERPA) of 1974, as amended, any person who is or has been in attendance at Lake Michigan College shall have the right to inspect and review any and all educational records directly related to that person after a request for access to such records has been made in accordance with the approved College procedure for such access. Requests are to be made through the Registrar's Office, room A220, (269) 927-8614.

Directory information, which may be made public without your written permission, shall include: name, phone number, major field of study, semesters of attendance, degrees and academic awards received, participation in officially recognized activities and sports, and the most recent previous educational institution attended by the student. If you do not want the College not release any or all of the above information you must inform the Registrar's Office, room A220, on the Napier Avenue Campus (269) 927-8614, in writing. This request must be renewed annually.

Personally identifiable information from your educational record which includes, but is not limited to, academic evaluation, counseling and advisory records, financial aid records, psychological and medical reports, disciplinary records, transcripts, test scores and other academic records, financial records and student payrolls - shall not be released without your written authorization. Exceptions to this policy may include but are not limited to: persons or organizations providing to the student financial aid, or determining financial aid decisions; organizations conducting studies to develop, validate, and administer predictive tests, to administer student aid programs, or to improve instruction; persons in compliance with a judicial order or a lawfully issued subpoena; or persons in an emergency, if the knowledge of information, in fact, is necessary to protect the health or safety of the student or other persons.

At Lake Michigan College, school officials with a legitimate educational interest may access your confidential records without your written consent. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

In order to meet the requirements of the Carl. D. Perkins Vocational and Technical Education Act, Section 113, and the Workforce Investment Act of 1998, Section 122, the College, under the auspices of the Office of Institutional Research (IR), may use your social security number to compile certain data for the purpose of instructional program improvement and Perkins and Workforce Investment Act reporting.

## Reporting and Availability of Grades

Grades will be available within one calendar week of the semester end. Grades are not mailed. Students may access their grades online via the LMC WaveLink system.

Students who require an official document from the Records and Registration Office may request this, in person, at any LMC campus. Photo identification is required. No third party may have access to a student's grades without the student's express written permission.

## Repeating Courses Policy

Courses that are repeated will result in the highest grade earned to be used for calculation of the GPA, compute honor points, and fulfill requirements for graduation. Any course in the College catalog may be taken more than once to better a grade; however, only those courses so specified in the catalog's course description can be taken more than once for additional credit. No course may be retaken more than three times for credit.

## Sexual Harassment

See non-Discrimination

## Smoking Policy

In accordance with the Michigan Clean Indoor Act, P.A. 198 of 1986 and the Berrien County Clean Indoor Air Regulation of 2007, the Smoking Policy is as follows:

All Campuses: Smoking is strictly prohibited in all enclosed areas within this workplace, without exception. This includes common work areas, auditoriums, classrooms, conference and meeting rooms, private offices, elevators, hallways, cafeterias, employee lounges, stairs, restrooms, employer owned or leased vehicles, storage areas, closets, lobbies, reception areas and all other enclosed facilities. This policy applies to all employees, clients, independent contractors, students and visitors.

Smoking is prohibited within twenty-five feet of entrances, windows and ventilation systems except in designated areas. All smoking trash receptacles and ashtrays shall be placed outside the no smoking area to discourage smoking in those areas.

Mendel Center: Smoking is only permitted within the building when it is part of a stage production.

South Haven Campus (Van Buren County): Pursuant to the goal of protecting the public health and welfare by regulating smoking in public places and places of employment, the South Haven Campus will follow the same requirements set forth by the regulation for our Berrien County campuses.

No Retaliation: No person or employer shall discharge, refuse to hire or in any manner retaliate against any employee, applicant for employment, student or customer because such employee, applicant, student or customer communicates a desire for a smoke-free environment.

## Student Discipline and Due Process

## A. Expulsion or suspension

1. All recommendations for expulsion or suspension shall be directed to the Executive Dean of Student Services, who may also initiate such action on his/her own authority. Where such recommendation is received, where the Executive Dean on his/her own authority determines such recommendation appropriate, the Executive Dean shall meet with the student within five (5) school days and shall provide the student with (1) notice of the recommendation, (2) the facts or allegations upon which the recommendation is made, (3) an opportunity to discuss the allegations and to provide such information as the student deems appropriate or relevant, and (4) the right to appeal.
2. Upon receiving a recommendation for expulsion or suspension, or upon determining on his/her own authority that such discipline is appropriate, the Executive Dean of Student Services may temporarily prohibit the student from attending any classes or participating in any other College activities until the meeting with the student is held.
3. At the conclusion of the meeting, the Executive Dean of Student Services may either (a) impose such lesser discipline as he/she deems appropriate under the circumstances, or (b) recommend to the President that such student be expelled or suspended. The Executive Dean shall notify the student of his/her recommendation and shall also notify the student of his/her appeal rights.

## 4. See Student Appeal Process and Complaint Resolution Procedure.

## B. Exclusion from a Class or Course, Probation, or Reprimand

All recommendations for exclusion or removal from a course or class for reprimand or censure, or for probation must be initiated by a faculty member or adjunct. Or it may be initiated by the Executive Dean of Student Services upon his/her own authority. Where such a recommendation is received, or where the Executive Dean of Student Services, deems such discipline appropriate, he/she shall meet with the student within five (5) school days and both will follow the Academic Complaint Procedure.

## Student Code of Conduct

Students of Lake Michigan College are guaranteed all rights, privileges and freedoms granted to a citizen of the United States. In addition, they are entitled to an environment that is conducive to learning and individual growth. To this end, students enrolling at Lake Michigan College assume a responsibility for the College's student conduct regulations, just as they assume a citizen's responsibility to abide by federal, state and local laws. Violation of statutory laws or the College student conduct regulations or specific departmental rules may lead to disciplinary action(s) by Lake Michigan College. These regulations were adopted not to deny any rights or privileges previously guaranteed, but to ensure a pleasant educational environment for all LMC students.

Students are expected to conduct themselves as responsible individuals in accordance with institutional policy, rules and regulations. In developing responsible student conduct the institution prefers counseling, guidance, admonition and example. However, when these means fail to resolve problems of student conduct and responsibility, appropriate disciplinary procedures will be followed.

Misconduct for which students are subject to disciplinary action falls into the general areas of academic dishonesty, threatening physical and verbal behavior, and violations of civil or criminal statutes and/ or institutional policies, rules and regulations.

## Prohibited Conduct - Rules and Regulations

Academic Honesty: This means that all academic work will be done by the student to whom it is assigned without giving or receiving unauthorized aid of any kind. Instructors will exercise care in the planning and supervision of academic work so that honest effort will be positively encouraged. Cheating and plagiarism are the two most obvious violations of academic honesty. No student shall engage in behavior that, in the judgment of the instructor of the class, constitutes cheating, fabrication, lying, plagiarism or theft of academic property. In brief, plagiarism is borrowing ideas, words, organization, etc.,
from another source or person and claiming them as original. Any dishonest activity may result in failure of specific assignments or an entire course. Falsifying, forging or altering of student records, college documents, and records or instruments of identification or providing false information to any official, college employee, or office also constitutes academic dishonesty and is subject to similar consequences.

Alcohol and Drugs: The unlawful manufacture, distribution, possession and/or sale of drugs and unauthorized use and/or sale of alcohol on any Lake Michigan College property or off campus sites such as hospitals or clinics is illegal and counter to the mission of the College.

Assault and Battery: Any conduct, including but not limited to, physical harm or abuse, bullying, verbal abuse, use of profanity, threats, intimidation, harassment, or coercion, or any behavior that threatens or endangers the health, safety, or well-being of any person is prohibited.

Assembly: No student or students shall assemble in a manner that obstructs the free movement of persons about the campus or that interferes with the normal operation of institutional facilities.

Compliance with Applicable Law: No student shall violate any college, policy, rule or regulation or other local, State or Federal law, ordinance or regulation on college-owned or operated property or in connection with any college-sponsored program, course of study or activity.

Contracts: No student shall enter into any contract in the name of the institution except with prior written authorization from appropriate college officials.

Disruptive Behavior: No student shall behave in a manner that disrupts the academic atmosphere of the institution or that endangers the rights and/or safety of the student or other persons.

Gambling: No student shall engage in any form of gambling on college-owned or operated property or at any college-sponsored activity.

Harassment: No student shall engage in harassment or bullying of another person. This shall include but not be limited to stalking, harassment of any person protected by the Civil Rights Act, sexual harassment, harassment involving sexual orientation.

Safety: No student shall engage in behavior that violates any safety rules of any classroom, laboratory or other institutional facility. This shall include, without limitation, the wearing of any required personal safety equipment and following prescribed methods and procedures for handling and disposing of materials, which may be hazardous, unstable, contagious, etc.

Signs: No student shall erect or display signs or posters on collegeowned or operated property unless authorized by the institution. No student shall deface, alter, tamper with, destroy or remove any sign or inscription on college-owned or operated property.

Soliciting: No student or organization may use institutional facilities, solicit funds or goods on or off-campus, or schedule activities unless such action has been approved by appropriate institutional officials. Students may post information on identified, public boards on each campus.

Smoking \& Use of Tobacco: In accordance with the Michigan Clean Indoor Act, P.A. 198 of 1986, Lake Michigan College maintains a smoke-free environment. No smoking is allowed anywhere inside the Napier Avenue Campus academic building, the Mendel Center, the Bertrand Crossing building, M-TEC facility, or South Haven Campus including restrooms and private offices. Smoking and use of tobacco products (i.e. chewing tobacco) is not allowed anywhere inside the premises, including restrooms and private offices, or other space owned, operated, or leased by Lake Michigan College, or in any College vehicles. Employees and students who are found smoking or using tobacco products outside of the designated smoking areas will be considered in violation of College policy and will be subject to discipline in the same manner as violations of other College policy. (Also see Smoking section of this catalog).

Theft and Vandalism: No student shall engage in attempted theft of and/or damage to property of the institution, of a member of the college community or other personal or public property.

Use of Institutional Facilities: Unlawful or unauthorized use of the institutional facilities is prohibited.

Weapons: No student shall possess, use, or threaten to use weapons or explosives on any college-owned or operated property or at a college-sponsored activity except as specifically authorized in writing by appropriate college officials.

Failure to Comply: No student shall neither fail to comply with direction of institutional officials, faculty, staff or security officers in performance of their duties nor fail to identify oneself to these persons when requested to do so. All students will wear or carry a LMCissued, photo identification.

Keys: No student shall engage in the unauthorized possession, duplication or use of keys to any institutional facility nor engage in unauthorized entry to or use of institutional premises or property.

Theft or Other Abuse of Computer Time: This is addressed in detail in the catalog. (See Computer Lab Policies section of the catalog.)

Other Prohibited Misconduct: The Assistant Dean of College Life or the Executive Dean of Student Services may specify other behaviors that shall constitute student misconduct, subject to the approval of the President.

## Student Appeal Process and Complaint Resolution

The Student Appeal Committee shall hear and determine appeals in the following situations: student-, faculty-, or staff-generated complaints concerning faculty or administration decisions and student conduct.

## A. Informal Resolution

## Step 1.

Faculty, adjunct, staff or student identifies a problem/issue/behavior requiring resolution to a faculty, adjunct, staff or student, as the situation defines.

Prior to the next scheduled class meeting (for faculty and adjunct faculty) or within five (5) business days (for staff and administrators), the faculty, adjunct, or staff and student(s) will meet face-to-face to identify the conflict/issue/problem and work to a resolution/
solution. The problem and solution will be briefly detailed on the LMC Complaint Resolution Form and filed with the Ombudsman and the student returns to class/campus. If the problem is unresolved, the student is handed a copy of the LMC Complaint Resolution Form and the resolution of the problem moves to the formal steps.

## B. Formal Resolution

## Step 2.

Within five (5) business days, the student must articulate the problem in writing on the LMC Complaint Resolution Form and meet for the second time with the faculty, adjunct or staff member in an attempt to resolve the issue. Input from the faculty or staff member is added to the LMC Complaint Resolution Form.

## Step 3.

Without resolution, the aggrieved has five (5) business days to meet with the Department Chair of the identified faculty for academic issues or the Director of Intercollegiate Athletics for non-academic issues for continued appeal and resolution. The LMC Complaint Resolution Form used in Steps 1 and 2 follows the complainant. In an academic complaint, the faculty has to agree with the resolution reached by the Chair. If the faculty disagrees with the Chair's resolution or the staff with the Director of Intercollegiate Athletics resolution, the issue can be moved to step 4 by the faculty/staff member.

## Step 4.

Without resolution, the appeal must be filed with the Student Appeals Committee within five (5) business days where the Committee has seven (7) business days to set a hearing date where the faculty, staff and/or student will be required to make their case, present evidence and share their perceptions for the committee to consider.

## Step 5.

Within seven (7) business days after hearing all the evidence and perceptions, the Student Appeals Committee will render a decision. The resolution will be communicated in writing on the LMC Complaint Resolution Form and is final. If at any Step the issue is resolved, the LMC Complaint Resolution Form is completed, distributed as necessary (aggrieved, faculty/staff, Executive Dean) and filed with the Office of the Executive Dean of Student Services.

## Student Appeals Committee <br> I. Jurisdiction

The Student Appeals Committee shall hear and determine appeals in the following situations: Student-, faculty-, or staff-generated complaints concerning student conduct excluding grades.

## II. Composition

The Student Appeals Committee shall consist of two (2) students from the Student Senate, two (2) faculty from outside the division* or staff outside the department and the Divisional Executive Dean. The Director of Intercollegiate Athletics will chair and facilitate the Student Appeals Committee and is a non-voting member. The Student Senate, Divisions and Departments will annually create a pool of participants from which to draw committee members.
*Division refers to that of the faculty referenced in the complaint.

## C. Ombudsman

Any full-time staff and/or faculty member can serve as the Lake Michigan College Ombudsman for terms of one (1) year and is appointed by the Executive Dean of Student Services. (In the first year, the Registrar will serve as the Lake Michigan College Ombudsman.) The Ombudsman's primary duty is to assist students in resolving complaints or disputes within the College. The Ombudsman also helps staff members, instructors and administrators sort through College rules and regulations that might apply to specific issues and concerns. The Ombudsman carries out these duties in a neutral, confidential, informal and independent manner.

Current Ombudsperson is Director of Student Life, Room D-103 (Gathering Place), 269-927-8100, extension 5206.

Following a request for assistance, the Ombudsman will take one or more of the following actions: (1) listen carefully to the concern, (2) explain relevant student rights and responsibilities, (3) review relevant College policies or regulations, (4) suggest fair and equitable options, (5) refer the individual to an appropriate college or community resource or (6) investigate, when necessary.

The Ombudsman is available to all parties involved in Student Appeals Committee hearings, the final step in an effort to resolve a dispute.

NOTE: The Ombudsman is not an advocate for any group on campus; instead, the Ombudsman is an advocate for fairness. The Ombudsman also does not provide legal service, represent students or instructors at academic grievance or disciplinary hearings or mediate disputes between or among faculty or between faculty and administrators. The Office of the Ombudsman does not accept formal complaints or notice for the College. Members of the LMC community may contact the Ombudsman in person or by e-mail.

At any point in the process, the student, faculty, adjunct or staff may enlist the assistance of the LMC Ombudsman for procedural assistance. The Ombudsman provides the LMC Complaint Resolution Form (also available from the offices of any Executive Dean) to the interested party at the initiation of the appeal process. Any informal records that are generated will be kept on file by the Ombudsman.

The above procedure excludes issues related to sexual harassment, civil rights, Title IX, and disability concerns. Complaint procedures for these areas can be found in the College Policies section of the College catalog or directed to the Assistant Director of Human Resources and Diversity in Room A-305, (269) 927-8102.

## Complaint - General Student

LMC is committed to providing a positive environment and educational experience for students. The College has clearly stated policies and procedural options that are available to students outlined in the College Catalog, Handbook and on the website to address academic and nonacademic disciplinary and behavioral type issues. Grievance procedures related to sexual harassment, civil rights, Title IX, and disability concerns can be found in the College Policies section of the College catalog or directed to the Assistant Director of Human Resources and Diversity in Room A-305, 269-927-8102.

Students having a complaint against faculty, staff, or administrative offices should first confer with the instructor, staff member or administrator in an effort to resolve issues through the Student Appeal Process and Complaint Resolution procedures.

Students with other general complaints regarding College operations not otherwise covered in the above procedures should report the complaint formally, in writing, to the Executive Dean of Student Services, located at LMC, 2755 E. Napier Avenue, Benton Harbor, MI 49022.

## Institutional Records of Student Complaints <br> Formal Complaint:

Typically, a formal complaint is a written allegation of an inequity. An inequity may involve either an academic or non-academic function of LMC. A request for decision-making is not a complaint. For example, a student requests a waiver of a course requirement. This is a request, but itself, is not a complaint. LMC denies the waiver, and the student appeals. Once again, if this appeal is merely a request to reexamine the decision, it is probably not a complaint. If, however, the student alleges some type of personal injury from the decision or the student points out procedural unfairness or accuses the decision-making process of being unfair, this appeal may probably now be considered a complaint.

## Resolution of a Formal Complaint:

1. A student seeking resolution to a formal complaint must submit a written request which includes the specific nature of the complaint, reasons for filing the complaint, and specific remedy requested to the Executive Dean of Student Services.
2. The Executive Dean of Student Services will consider the merit of the complaint and will take any action considered appropriate or necessary. If applicable, the Executive Dean of Student Services records the receipt of a complaint in the Student Complaint Log and refers the complaint to the appropriate LMC official.
3. The LMC official in receipt of a referred complaint from the Executive Dean of Student Services has five school days to schedule a meeting of the individual(s) involved in that complaint. If a satisfactory resolution is concluded, then the LMC official who received the complaint notifies the Executive Dean of Student Services that the complaint has been resolved, and an appropriate entry is recorded in the LMC Student Complaint Log.
4. If a satisfactory resolution to a complaint is not concluded, then the College official who received the complaint refers the matter back to the Executive Dean of Student Services for further review. The Executive Dean of Student Services has five school days from the receipt of an unresolved complaint to schedule a meeting of the individual(s) involved in that complaint. The decision of the Executive Dean of Student Services will constitute the final resolution of a formal complaint. No further appeal will be considered.

## Formal Complaint Log

Formal complaints will result in an anonymous entry to the LMC Student Complaint Log. The Log is available for review by college staff, representatives of accrediting agencies, and by other, appropriate outside agencies. The names of any individuals involved in a complaint (including the names of any student(s) or LMC staff directly involved) are not part of the Log. The LMC Student Complaint Log will include the following information:
A. A description of the complaint
B. The date the complaint was received
C. The category of the complaint (discrimination, sexual harassment, etc.)
D. Steps taken to address the complaint
E. The disposition of the complaint, including referral to an outside agency
F. Any external actions initiated by a student and related to a given complaint

## Maintenance of the Complaint Log

LMC will maintain, at a minimum, records of complaints for a twoyear period. The Executive Dean of Student Services will maintain the LMC Student Complaint Log. Accrediting agencies and other, appropriate outside agencies will be able to review the Complaint Log in conjunction with accrediting visits and self studies.

## Notice to Students

Complaint resolutions procedures are published on the LMC website, in the College Catalog and College Handbook and orientation courses. Students can get hard copies at any LMC Student Information Center location.

## Student Discipline and Due Process

The Board of Trustees recognizes the need for a student discipline process that allows students the right to due process. The Board, therefore, authorizes the Administration to establish procedures for implementing the policy for student discipline and due process.

## Discipline

Disciplinary sanctions include, but are not limited to:

- Expulsion - permanent exclusion or removal from the College, with re-enrollment and attendance only upon express consent of the Board.
- Suspension - exclusion from the College for a definite period of time.
- Administrative Withdrawal - exclusion from a particular course, with permission to attend others, with a corresponding grade of a W in accordance with established College policies.
- Reduction of grade.
- Probation not to exceed one academic year and which may include suspension of certain other privileges during the probationary period.
- Censure or reprimand - subject to further and more severe discipline in the event of further violations of College rules or policies.

A student who is expelled or suspended from the College will not be permitted access to College property and may not participate in any College activities during the period of suspension or expulsion. A student who is expelled, suspended, or removed from a class or course will not be entitled to a refund, either in whole or in part, of any tuition or fees.

## Transfer of College Credit

If you are coming to Lake Michigan College from another college or university, you may receive a maximum of 120 credits toward a certificate or degree from Lake Michigan College for previous courses you have taken. College coursework completed with a grade of " C " (2.0) or higher at accredited, post-secondary institutions, must be accredited by one of the Regional Accrediting bodies, to be considered for transfer. If you want prior coursework reviewed for possible transfer credit, apply for admission to Lake Michigan College and have an official transcript of your previous academic transcripts sent to the Records Office. Courses completed with a grade of 2.0 or better on a 4.0 scale will be accepted. An official transcript is one sent directly to LMC from the sending insitution. A transcript that has been in a student's possession is considered unofficial.

## Weapons - Free Campus Policy

Lake Michigan College is a weapon-free campus that prohibits any weapon, including, but not limited to, guns (including starter guns), explosives, knives with blades longer than three inches, clubs, brass knuckles, martial arts weapons, bow and arrow combinations, and/ or fireworks.

Propellant sprays and electronic stunning devices used for personal protection and self-defense purposes are allowed.

Violations can result in expulsion, loss of a campus job, a ban on attending campus facilities and events, and/or criminal prosecution. Exceptions include the arms carried by uniformed police officers and theatrical props. The College president can make other exceptions.
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##  <br> LAKE MICHIGAN <br> $\begin{array}{lllllll}C & O & L & L & E & G & E\end{array}$

Bertrand Crossing Campus
1905 Foundation Drive
Niles, MI 49120
(269) 695-1391

South Haven Campus
125 Veterans Boulevard
South Haven, MI 49090 269-637-7500

M-TEC ${ }^{\text {SM }}$ at Lake Michigan College
400 Klock Road
Benton Harbor, MI 49022
(269) 926-6832

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Lake Michigan College Board of Trustees


[^0]:    Western Michigan University - Southwest
    2785 E. Napier Avenue, Benton Harbor, MI 49022
    269-934-1500

[^1]:    * Foreign Language requirements for individual baccalaureate degree programs will be the prerogative of the four-year college. Courses must be taken in more than one discipline.

[^2]:    * Transferring students are encouraged to take PHED 212 or PHED 214.

[^3]:    ** Transferring students are encouraged to take PHED 212 or PHED 214.

[^4]:    * Transferring students are encouraged to take PHED 212 or PHED 214.

[^5]:    * Transferring students are encouraged to take PHED 212 or PHED 214.

[^6]:    * Transferring students are encouraged to take PHED 212 or PHED 214.

[^7]:    *Transferring students are encouraged to take PHED 212 or PHED 214

[^8]:    * Transferring students are encouraged to take PHED 212 or PHED 214.

[^9]:    140 RADIOGRAPHIC POSITIONING II, WINTER
    3(2-2)
    Routine positioning of vertebral column, lower extremities, special views of body and related pathologies.
    Prerequisites: $E, M, R, R A D T$ 130, RADT 131, RADT 132
    141 CONTRAST STUDIES, WINTER
    Anatomy and positioning of gastrointestinal, biliary, genitourinary systems, glands and related pathology.
    Prerequisites: $E, M, R, R A D T$ 130, RADT 131, RADT 132

