



# 2013-2014 College Catalog



the *Lake effect...*  
on the rest of your **life**<sup>SM</sup>

# 2013-2014 Lake Michigan College Catalog

## **Napier Avenue Campus**

2755 East Napier Avenue  
Benton Harbor, MI 49022, (269) 927-1000



## **M-TEC<sup>SM</sup> 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.

Information contained in the 2013-2014 Lake Michigan College Catalog is, to the best knowledge of the Lake Michigan College staff, considered correct when published in 2013. However, this Catalog should not be considered a contract between Lake Michigan College and any student. Lake Michigan College reserves the right to make changes in tuition, fees, admission requirements, policies, graduation requirements, and curricula without notice or obligation. For the most current information, visit the Lake Michigan College website.

# Lake Michigan College



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*President*

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# Academic Calendar 2013-2014

Lake Michigan College has two semesters and an optional summer term. Fall and Spring semesters and Summer term are each fourteen (14) weeks long. Each may offer a variety of class session lengths: fourteen (14) weeks, seven (7) weeks, and five (5) weeks. The optional summer term also has ten (10)-week and seven (7) week-courses that are in an accelerated format. This calendar includes important dates. The calendar is subject to change. Dates and events are added or changed as information becomes available.

Fall 2013			Spring 2014		
Date	Day		Date	Day	
Apr 15	Monday	Fall 2013 registration begins	Oct 14	Monday	Spring 2014 registration begins
Aug 28	Wednesday	Late registration fee applies	Jan 2	Thursday	College opens
Aug 28-30	Wed-Fri	Opening Days			May graduation application available online
Aug 31 - Sept 2	Sat-Mon	Labor Day weekend - College closed			Health Science candidacy application online
Sept 1	Sunday	December graduation application available online	Jan 7	Tuesday	Late registration fee applies
Sept 3	Tuesday	Classes begin	Jan 8-10	Wed-Fri	Opening Days
Sept 10	Tuesday	Last day to drop first 5, 7, or full 14-week courses with 100% refund	Jan 13	Monday	Classes begin for first 5, 7, and 14-week courses
		Last day to withdraw from first 5-week courses with a guaranteed "W"	Jan 20	Monday	MLK Day - College open, no classes
Sept 30	Monday		Jan 20	Monday	Last day to drop first 5, 7, or full 14-week courses with 100% refund
Oct 6	Sunday	First 5-week courses end	Feb 10	Monday	Last day to withdraw from first 5 week-courses with a guaranteed "W"
Oct 7	Monday	Middle 5-week courses start	Feb 16	Sunday	First 5 week courses end
Oct 14	Monday	Last day to drop middle 5-week courses with 100% refund	Feb 20	Thursday	Professional development - College open, no classes, no clinicals
Oct 14	Monday	Last day to withdraw from first 7-week courses with a guaranteed "W"	Feb 17	Monday	Middle 5-week classes begin
Oct 14	Monday	Spring 2014 registration begins	Feb 24	Monday	Last day to withdraw from first 7-week courses with a guaranteed "W"
Oct 21	Monday	First 7-week courses end	Feb 24	Monday	May graduation application due
Oct 23	Wednesday	Last 7-week courses begin	Feb 24	Monday	Last day to drop middle 5-week courses with 100% refund
Oct 30	Wednesday	Last day to drop last 7-week courses with 100% refund	Mar 1	Saturday	Health Science candidacy list application due for MRI and Sonography programs
Nov 4	Monday	Last day to withdraw from middle 5-week courses with a guaranteed "W"	Mar 3-9	Mon-Sun	Spring Break - College open Mon-Sat, no classes
Nov 7	Thursday	Middle 5-week courses end	Mar 10	Monday	Summer 2014 registration begins
Nov 8	Friday	Last 5-week courses begin			First 7-week courses end
Nov 8	Friday	December graduation application due	Mar 14	Friday	Last 7-week courses begin
Nov 15	Friday	Last day to drop last 5-week courses with 100% refund	Mar 21	Friday	Last day to drop last 7-week courses with 100% refund
Nov 25	Monday	Last day to withdraw from full 14-week courses with a guaranteed "W"	Mar 24	Monday	Last day to withdraw from middle 5-week courses with a guaranteed "W"
Nov 25	Monday	Last day to withdraw from Open Entry/Defined Exit courses with a guaranteed "W"	Mar 24	Monday	Last day to withdraw from Fall 2013 Open Entry/Open Exit courses with a guaranteed "W"
Nov 27	Wednesday	Clinicals in session - College closed	Mar 27	Thursday	Middle 5-week courses end
Nov 27- Dec 1	Wed-Sun	Thanksgiving break - College closed	Mar 28	Friday	Last 5-week courses begin
Dec 1	Sunday	Last day to add Fall 2013 Open Entry/Open Exit and Open Entry/Defined Exit courses	Apr 4	Friday	Last day to drop last 5-week courses with 100% refund
Dec 2	Monday	Last day to withdraw from last 7-week courses with a guaranteed "W"	Apr 14	Monday	Fall 2014 registration begins
Dec 9	Monday	Last day to withdraw from last 5-week courses with a guaranteed "W"			Last day to withdraw from full 14-week courses with a guaranteed "W"
Dec 15	Sunday	Classes end	Apr 14	Monday	Last day to withdraw from Open Entry/Defined Exit courses with a guaranteed "W"
Dec 17	Tuesday	Grades due by 2:00 p.m.	Apr 18-20	Fri-Sun	Spring Recess - College closed, no classes
Dec 19	Thursday	Grades available online	Apr 20	Sunday	Last day to add Spring 2014 Open Entry/Open Exit and Open Entry/Defined Exit courses
Dec 24 - Jan 1	Tue - Wed	Winter Break - College closed (Noon on Dec. 24)	Apr 21	Monday	Last day to withdraw from last 7-week courses with a guaranteed "W"
Mar 24, 2014	Monday	Last day to withdraw from Fall 2013 Open Entry/Open Exit courses with a guaranteed "W"	Apr 28	Monday	Last day to withdraw from last 5-week courses with a guaranteed "W"
			May 2	Friday	Graduation rehearsal
			May 3	Saturday	Classes end
			May 4	Sunday	Commencement at 2:00 p.m.
			May 6	Tuesday	Grades due by 2:00 p.m.
			May 7	Wednesday	Health Science candidacy list application due for Nursing and Rad Tech programs
					Grades available online
			May 8	Thursday	Last day to withdraw from Spring 2014 Open Entry/Open Exit courses with a guaranteed "W"
			July 14	Monday	

# Academic Calendar 2013-2014

Lake Michigan College has a Fall and Spring semester, and a Summer term. Each are fourteen (14) weeks long. Each semester and term may offer a variety of class session lengths; fourteen (14) weeks, seven (7) weeks, and five (5) weeks. This calendar includes important dates for each semester/term. The calendar is subject to change. Dates and events are added or changed as information becomes available.

<b>Date</b>	<b>Day</b>	<b>Summer 2014</b>
Mar 10	Monday	Summer 2014 registration begins
May 1	Thursday	Summer Graduation Application available online
May 6	Tuesday	Late registration fee applies
May 7	Wednesday	Health Science Candidacy List Application due
May 12	Monday	Classes begin for first 5, 7, 10, and 14-week courses
May 19	Monday	Last day to drop first 5, 7, and 14-week courses with 100% refund
May 24-26	Sat-Mon	Memorial Day weekend - College closed, no classes
June 9	Monday	Last day to withdraw from first 5-week courses with a guaranteed "W"
June 13	Friday	Summer graduation application due
June 16	Monday	First 5-week courses end
June 23	Monday	Last day to withdraw from first 7-week courses with a guaranteed "W"
June 28	Saturday	First 7-week courses end
June 30 - July 6	Mon-Sun	Break Week — no classes — College open Mon. - Sat. except for July 4
July 1	Tuesday	Grades due for first 7-week courses
July 3	Thursday	Grades available online
July 4	Friday	Independence Day - College closed, no classes
July 7	Monday	Last 7-week courses begin
July 14	Monday	Last day to drop last 7-week courses with 100% refund
July 14	Monday	Last day to withdraw from First 10 week and Spring 2014 Open Entry/Open Exit courses with a guaranteed "W"
July 21	Monday	Last 5-week courses begin
July 28	Monday	Last day to drop last 5-week courses with 100% refund
July 28	Monday	First 10-week courses end
Aug 4	Monday	Last day to withdraw from 14-week courses with a guaranteed "W"
Aug 4	Monday	Last day to withdraw from Open Entry/Defined Exit courses with a guaranteed "W"
Aug 10	Sunday	Last day to add Summer 2014 Open Entry/Open Exit and Open Entry/Defined Exit courses
Aug 11	Monday	Last day to withdraw from last 7-week courses with a guaranteed "W"
Aug 18	Monday	Last day to withdraw from last 5-week courses with a guaranteed "W"
Aug 23	Saturday	Classes end
Aug 26	Tuesday	Grades due by 2:00 p.m.
Aug 28	Thursday	Grades available online
Nov 3	Monday	Last day to withdraw from Summer 2014 Open Entry/Open Exit courses with a guaranteed "W"

# Where to Find It

## Admissions

Napier Avenue Campus ..... 269-927-8626  
Location: A 209 Richard J. Pappas Student Services Center

## Advising

**Career and academic advising, scheduling, transfer advising, personal advising as it relates 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 appointment  
Bertrand Crossing Campus ..... 269-695-1391  
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 Information

WMU building on the Napier Avenue Campus ..... 269-927-6849  
Location: WMU Room 2212

## Apprentice Training

M-TEC<sup>SM</sup> at Lake Michigan College ..... 269-927-4103  
Location: Room MT101

## Arts & Sciences

Napier Avenue Campus ..... 269-927-6745  
Location: Room C222

## Assessment

Napier Avenue Campus ..... 269-927-6173  
Location: Room B200/202  
Hours: M 9 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 Campus ..... 269-695-1391  
Location: Student Services  
Hours: Computerized assessment testing  
M-Th 8 a.m. - 5 p.m., F 8 a.m. - 2 p.m.  
Out of class and Health Science testing during published testing hours.  
Please call for testing hours.  
South Haven Campus ..... 269-637-7500  
Location: Student Services area  
Hours: M-Th 8 a.m. - 7 p.m., F 8 a.m. - 2 p.m.

## Athletics

### Intercollegiate sports

Napier Avenue Campus ..... 269-927-6172  
Location: Room D103

## Bertrand Crossing Campus

1905 Foundation Drive, Niles, MI 49120 ..... 269-695-1391  
Hours: M-Th 7:30 a.m. - 7:30 p.m., F 7:30 a.m. - 4 p.m.

## Bookstores

Napier Avenue Campus ..... 269-927-6713  
Location: S121  
Fall & Spring Hours: M-Th 8:30 a.m. - 6:30 p.m., F 8:30 a.m. - 1:30 p.m.  
Sat/Sun - closed  
Summer Hours: M-Th 9 a.m. - 6:30 p.m., F 9 a.m. - 1 p.m.  
Sat/Sun - closed  
Online: <http://lake-michigan.bncollege.com>  
South Haven Campus ..... 1-800-252-1562 ext. 7116  
Locations: Lobby  
Hours: M-Th 9 a.m. - 6:30 p.m.; F 9 a.m. - 1 p.m.; Sat/Sun Closed  
Online: <http://lake-michigan-shc.bncollege.com>

## Business 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., extended hours during peak registration  
Bertrand Crossing Campus ..... 269-695-1391  
Location: Student Services  
Hours: M-Th 7:30 a.m. - 7:30 p.m.; F 7:30 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.

## Career & Transfer Center

### Career counseling, occupation information, job search resources

Napier Avenue Campus ..... 269-927-6284  
Location: D 201/D202  
Hours: M-F 8 a.m. - 5 p.m., evenings by appointment

## Career Education

Napier Avenue Campus ..... 269-927-8111  
Location: Room C122

## Child Care Center (Kidzone)

**On-campus infant, toddler, pre-school, and school-age care for children between the ages of 2 weeks and 12 years. Open to students, employees, and community members**

Napier Avenue Campus ..... 269-927-6293  
Location: B-107  
Hours: M-F 6 a.m. - 6 p.m.  
South Haven Campus ..... 269-637-7501  
Hours: M-F 6 a.m. - 6 p.m.

# Where to Find It

## Early College

Dual enrollment and direct credit opportunities for area high school students  
Napier Avenue Campus ..... 269-927-6198

## Educational Opportunity Center

Academic, vocational, career advising, and enrollment services  
Napier Avenue Campus ..... 269-927-1000 ext. 5031  
Location: C209, Richard J. Pappas Student Services Center  
Hours: M-F 8 a.m. - 6 p.m.

## Financial Aid

Financial aid, scholarships, and work study  
Napier Avenue Campus ..... 269-927-8112  
Location: A202, Richard J. Pappas Student Services Center  
Hours: M, T, Th, F 8 a.m. - 5 p.m., W 8 a.m. - 6 p.m.  
Bertrand Crossing Campus ..... 269-695-1391  
Location: Room 101  
Hours: M-Th 7:30 a.m. - 7:30 p.m.; F 7:30 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.

## Honors Program

Honors courses and activities  
Napier Avenue Campus ..... 269-927-8771  
Location: Room C125b

## Human Resources

Napier Avenue Campus ..... 269-927-8132  
Location: A303

## International Student Services

Napier Avenue Campus ..... 269-927-6181  
Location: C205b, Richard J. Pappas Student Services Center  
Hours: M-F 8 a.m. - 4 p.m. by appointment

## Learning Assistance Center

Tutoring services  
Napier Avenue Campus ..... 269-927-5169  
Location: Room B203  
Hours: M-Th 8 a.m. - 8 p.m., F 8 a.m. - 3 p.m., Sat. by appointment  
Hours are subject to change.

## Library - William Hessel Library

Napier Avenue Campus ..... 269-927-8605  
Location: Room L-100  
Fall & Spring Hours: M-Th 8 a.m. - 7 p.m., F 8 a.m. - 4 p.m.,  
Summer hours: M-Th 8 a.m. - 5 p.m., F 8 a.m. - 4 p.m.  
Library web page: [www.lakemichigancollege.edu/lib/](http://www.lakemichigancollege.edu/lib/)

## M-TEC<sup>SM</sup> 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 Spring Hours: Come to the Math Center during your regular math class time.  
Open hours: Fridays 9:10 a.m.-12:30 p.m.  
Summer Hours: Come to the Math Center during your regular math class time.  
Call for open summer hours.

## 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

Napier Avenue Campus ..... 269-927-1000 ext. 5276  
Location: First floor across from the bookstore, between the B and C wings

## Napier Avenue Campus

2755 E. Napier Avenue, Benton Harbor, MI 49022 ..... 269-927-1000 or  
1-800-252-1562

## Program Information

Math, Physical Education, Wellness ..... 269-927-8164  
Humanities, Fine Arts, Foreign Language ..... 269-927-8775  
Nursing, Medical Imaging, Dental Assisting ..... 269-927-8762  
Business, OIS ..... 269-927-8171  
English ..... 269-927-8771  
Transitional Studies ..... 269-927-8741  
Humanities, History, Psychology, Sociology ..... 269-927-8771  
Science ..... 269-927-1000 ext. 5075  
Technology Programs ..... 269-927-4103  
Computer Information Systems ..... 269-927-8749

## 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 & Student I.D. Cards

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.  
Bertrand Crossing Campus ..... 269-695-1391  
Location: Student Services  
Hours: M-Th 7:30 a.m. - 7:30 p.m., F 7:30 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

Napier Avenue Campus ..... 269-927-6711  
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.

## Student Life

# Where to Find It

## **Student activities, student senate, Phi Theta Kappa, and clubs**

Napier Avenue Campus ..... 269-927-8150

Location: D-103, next to the gym

Hours: M-F 8 a.m. - 5 p.m.

## **Student Resource Center**

Disability resources, single parents, displaced homemakers, non-traditional students, limited English proficiency, students with a disability

Napier Avenue Campus ..... 269-927-8866

Location: Room C205, Richard J. Pappas Student Services Center

Hours: M-F 8 a.m. - 5 p.m., evenings by appointment

## **Student Support Services**

Supportive services including TRIO computer lab

Napier Avenue Campus ..... 269-927-8603

Location: Room C207, Richard J. Pappas Student Services Center

Hours: M-F 8 a.m. - 5 p.m., evenings by appointment

Website: [www.lakemichigancollege.edu/ssc](http://www.lakemichigancollege.edu/ssc)

## **Tours**

Napier Avenue Campus ..... 269-927-8626

Bertrand Crossing Campus ..... 269-695-1391

M-TEC<sup>SM</sup> 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

Transitional Math Center - B208 ..... 269-927-7097

Transitional Writing Classroom - B207 ..... 269-927-5807

Transitional Writing Office - B203a ..... 269-927-8110

Learning Assistance Center - B203 ..... 269-927-1000 ext. 5169

Assessment Center - B220/202 ..... 269-927-6153

Adjunct Faculty Office - B203b ..... 269-927-5187

## **Upward Bound**

Assists Benton Harbor high school students to enter college

Napier Avenue Campus ..... 269-927-8774

Location: Room C211, Richard J. Pappas Student Services Center

Hours: M-F 8 a.m. - 5 p.m.

## **Veterans' Services**

Napier Avenue Campus ..... 269-927-6181

Location: Room C205b, Richard J. Pappas Student Services Center

Hours: M-F 8 a.m. - 4 p.m. by appointment

## **Western Michigan University – Southwest**

2785 E. Napier Avenue, Benton Harbor, MI 49022 ..... 269-934-1500

Fax ..... 269-934-1505

Hours: M-Th 8 a.m. - 8 p.m., F 8 a.m. - 5 p.m.

## **Workforce Development**

Short-term training, certifications, and customized industry training

M-TEC<sup>SM</sup> at Lake Michigan College ..... 269-926-4296

Location: Room MT101



# 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 County, 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 more than 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 certificate
- 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 majors and certificate areas of study. Courses are available at four sites operated by the College and through a number of off-campus locations throughout Berrien, Van Buren, and Allegan counties. More than 400 faculty and staff are employed by the College.



# Places and Ways to Access Lake Michigan College

## Napier Avenue Campus

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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

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Located on the Napier Avenue Campus, the Mendel Center for Arts and Technology is a regional cultural and conference center. It features the 1,517-seat 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, tradeshow, 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

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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. Extension sites include LMC at Brandywine where students can complete technology and machining degrees, LMC Youth Robotics at Niles Eastside Connections School, and the LMC Fab Lab at Niles High School.

Students have access to a broad range of services including academic counseling, financial aid and scholarship information, and student support services. Special features include state-of-the-art chemistry, biology, and dental assisting labs, and flexible learning spaces. Students can complete associate

degrees in arts, science, general studies, business administration, industrial technology, applied business in marketing and management, and applied science in dental assisting. They can also complete certificates in the logistics, energy production, and line worker programs.

# Places and Ways to Access Lake Michigan College

## South Haven Campus

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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, and an art room.

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

- Associate in Arts and Associate in Science degrees
- Pre-nursing
- Early Childhood Education
- Business Administration

Students benefit from a full-service setting with personalized 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<sup>SM</sup> (M-TEC<sup>SM</sup>) at Lake Michigan College

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Opened in the fall of 2000, M-TEC<sup>SM</sup> at Lake Michigan College is focused on the training needs of area industry and their current and potential employees. This 43,789 square-foot facility provides high-wage, high-skill, high-demand training with state-of-the-art equipment in an industry-like facility. The Workforce Training and Development Department at Lake Michigan College is focused on the training needs of area business and industry and their current and potential employees. Workforce Training and Development accommodates both credit and short-term training offerings, primarily in manufacturing, and health care.

The Technology Department offers credit-bearing manufacturing programs including Machine Tool Technology, Energy Production Technology, Welding, Industrial Maintenance Technology, and Apprenticeship Training.

The new Healthcare Education Institute (HEI) is scheduled to open in Fall 2013 and will house both credit and non-credit health care education programs including Certified Nurse Aide, Pharmacy Technician, Patient Registrar, Electronic Health Records Specialist, Certified Medical Assistant, Emergency Medical Technician, and Paramedic.

M-TEC<sup>SM</sup> at Lake Michigan College is also home to an Assessment Center which delivers the GED, KeyTrain up-skilling, WorkKeys assessments, the National Career Readiness Certification, Bennett Mechanical Comprehension Test, the Michigan Certified Nurse Aide examination, Certipoint, and many PearsonVue IT certification exams.

## Off-Campus Classes

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During the fall and spring 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.

## Online and Hybrid Courses

With Lake Michigan College's online classes, you can attend class from your home, office, or anywhere you have access to a computer and Internet service. Individual instructors can give you details about the amount of time required on campus for orientation and testing.

Hybrid classes mix the best of both worlds – online and on campus. You complete a portion of your coursework online, and the rest of the course is delivered in a traditional face-to-face format. Hybrid courses vary in the amount of face-to-face meetings. Some courses meet multiple times a week, some meet once a week, and other times as designated. Internet access and a working knowledge of computers is required to be successful in a hybrid format class. Go to [www.lakemichigancollege.edu/hybrid](http://www.lakemichigancollege.edu/hybrid) for more information.

Information about specific online and hybrid classes can be found in the current class schedule.

Online classes are offered in conjunction with the Michigan Community College Virtual Learning Consortium (MCCVLC) and tuition rates for MCCVLC referrals 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 Bookstore. Bookstore details are available in the most current class schedule.

## Open Entry/Open Exit (OE/OE) and Open Entry/ Defined Exit (OE/DE)

### Registration & Completion

Open Entry/Open Exit (OE/OE) and Open Entry/Defined Exit (OE/DE) courses are self-paced classes designed to allow students more flexibility in completing some of their coursework. Courses offered in these formats are designated in the course schedule with either an OE/OE (Open Entry/Open Exit) or an OE/DE (Open Entry/Defined Exit).

An Open Entry/Open Exit course allows the student to complete the course by the end of the following semester, if necessary. Students may register at any time up to the last two weeks of the semester; however, they must begin the course immediately upon enrollment. Students must engage in at least one instructional activity within the first week of enrolling in the course to maintain academic progress. After that, students should work to complete the coursework as quickly as they are able. Open Entry/Open Exit courses must be completed by the end of the next full semester. (Financial Aid students, please see special note below for requirements.)

Open Entry/Defined Exit courses must be completed within the semester the student registers. Students may register at any time up to the last two weeks of the semester but must begin coursework immediately and complete at least one instructional activity within the first week of registering for the class. Open Entry/Defined Exit courses do not extend into the following semester.

## Grading

If an OE/OE (Open Entry/Open Exit) course is not completed by the end of the semester in which the student enrolled, students will receive an IP (In-Progress) at the end of the term. Sufficient academic progress toward completion, as defined in the course syllabus, will determine if a student is eligible for an IP or will receive a failing grade. Students, therefore, must satisfy requirements for continued progress before an IP will be awarded. If an IP is awarded, students have until the end of the following semester to complete their coursework.

An OE/DE (Open Entry/Defined Exit) course must be completed by the end of the semester, regardless of when the student enrolled for the course. The grade earned will be recorded on the student's transcript.

## Withdrawal from an OE/OE or OE/DE Course

Students may withdraw from an OE/OE or OE/DE course with a "W" up through 80% of the allotted completion time of the course. Students should consult the College's web site for specific dates. Late withdrawals are solely at the discretion of the instructor and must be completed on the appropriate form with the instructor's signature.

## Dropping an OE/OE or OE/DE Course

Students who register for an OE/OE or OE/DE course by the last day to add courses for the semester, may drop the course according to the published semester drop date. OE/OE or OE/DE courses registered for after the full semester's last day to add may be dropped within three days of the posted registration. For OE/OE or OE/DE courses dropped during the allowable timeframe, the regular tuition refund policy applies.

## Special Note for Financial Aid Students Enrolled in Open Entry Courses

Students using financial aid to pay for an Open Entry course must register during the regular semester registration period at the beginning of the semester in order for these classes to be included in their financial aid package. Students MUST begin work on their Open Entry course (whether it is OE/OE or OE/DE) before the financial aid for the class will be released to the student's account. Students must continue regularly participating in the class to maintain academic standards of progress for the course. If students do not continue working on the course, (more than two weeks with no class activity) through at least the 60% point of the semester in which they enrolled, the financial aid award will be recalculated and possibly reduced, which could result in the student owing the College or the Department of Education for previously awarded financial aid. In addition, the student's Flex Pay – Pending Aid account may be activated. Students with a financial aid hold on their account may not be permitted to enroll in future terms.

# 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  
230 South LaSalle Street, Suite 7-500  
Chicago, Illinois 60604-1413  
Telephone: (800) 621-7440  
[www.ncahlc.org](http://www.ncahlc.org)

Other programs at Lake Michigan College are individually accredited by their governing boards. They include:

### • Nursing Program Associate Degree

Fully approved by the Department of Community Health, Bureau of Health Professions and is accredited by the NLNAC (National League for Nursing Accrediting Commission, Inc. located at 3343 Peachtree Road NE Suite 850 Atlanta, GA 30326.

### • Radiologic Technology Associate Degree program

Accredited by the Joint Review Committee on Education in Radiologic Technology.

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.  
[www.jrcert.org](http://www.jrcert.org).

### • Dental Assisting Program Associate Degree and Certificate of Achievement

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.

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)

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 "C" 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 and Transfer 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 experience. Any person can apply for admission to Lake Michigan College who is interested in and capable of benefiting from the post-secondary experience, and who is:

1. A high school graduate or GED recipient, or
2. Eighteen years of age or older.

Individuals who are still in high school may enroll in classes at the College during regular high school hours with permission of their high school guidance officer by completing an Early College registration form.

Guest student status is available to individuals who attend both in-state and out-of-state colleges and universities. Guest students may enroll in course work for which all stated pre-requisites have been met.

The College reserves the right to evaluate and document special cases and to refuse admission and/or continued enrollment if the College determines that the applicant/student is a threat or a potential danger to the college community or if such refusal is considered in the best interest of the College.

The College retains the right to deny and/or revoke admission/enrollment of any applicant or student who was convicted of a felony or a crime requiring listing on the Sex Offender Registry. A registered sex offender is defined as any person who is required pursuant to State or Federal Law to be registered on any Criminal Information Network and/or the National Crime Information Center Convicted Sexual Offender Registry.

The College will monitor the Sex Offender Registry list to identify persons on the list who have been convicted of a felony or a crime requiring listing on the Sex Offender Registry and are applying for admission to or enrolled in Lake Michigan College. Individuals convicted of a felony or a crime requiring listing on the Sex Offender Registry are required to inform the Vice President, Student Services of their status at the time they seek admission to the College.

Failure to comply with notification requirements may result in immediate denial of admission or expulsion from the College. As required by Federal Law, Lake Michigan College will provide a link in one or more areas of its web site and in appropriate College publications to the Michigan State Police Sex Offender Registry.

A student whose admission is revoked after enrollment must be notified of the right to an appeal process and provided due process. The student whose admission is revoked is provisionally enrolled and permitted to attend classes pending the outcome of the appeal process, if the student chooses to appeal.



## Admission Requirements - Health Science Program

In addition to the general College admission requirements, each Health Science program has additional specific requirements that must be completed in order to be placed onto the candidacy list from which students are selected for entrance into a program.

For information on the most current entrance requirement to a Health Science program, contact Student Services Academic Advising at (269) 927-8128 to make an advising appointment. For the Dental Assisting program, call (269) 927-1000 ext. 5074. General questions about any of the programs may be addressed to the Health Sciences secretary at (269) 927-8768.

The Health Science department reserves the right to evaluate, grant, or deny acceptance into any Lake Michigan College Health Science program based on an audit of the student records at LMC according to the guidelines published by the department.

## Admission Requirements - Dental Assisting

1. High School graduation or equivalent.
2. English:  
Lake Michigan College Placement Assessment: English 101 eligible or enrolled currently in English 093-094 and Introduction to Dental Assisting 165.
3. Reading:  
Lake Michigan College Placement Assessment: 11.8 grade (40% ile) on Nelson-Denny Reading test **or** a score of 78 on the Compass assessment **or** enrolled concurrently in the appropriate reading transitional studies course and Introduction to Dental Assisting 165.
4. Interview with Dental Assisting Program Director.
5. Additional requirement of associate degree program:  
Meet the algebra proficiency requirement.

## Admissions Status

### New Students

A new or first time in any college student is someone who has never attended any college or university. All new degree/certificate-seeking students must apply for admission to LMC. Students who participated in LMC's Early College program during high school are classified as new students during the first semester enrolled as degree-seeking at LMC after high school graduation.

Non degree/certificate-seeking students may enroll in classes at LMC for personal interest. All non degree-seeking students are encouraged to apply for admission before first semester of enrollment. However, non degree-seeking students must apply for admission before the next semester of enrollment.

### Continuing Students

Any LMC student who has enrolled at any time within four consecutive semesters (excluding summer term), may return to study without applying for readmission to the College provided the student's account is in good standing and all other obligations to the College have been met. Upon completion of the first semester enrolled at LMC, a student is classified as a continuing student and remains a continuing student until the student no longer meets the definition of a continuing student.

### Re-Entering Students

Any LMC student who has not enrolled within four consecutive full semesters (excluding summer) must contact the Records Office at (269) 927-8107 to determine if a new application for admission is required. These students are classified as re-entering students for the first semester of enrollment.

### Transfer Students

Any student who has attended another post-secondary institution and will now be attending LMC for the first time as degree/certificate-seeking is classified as a transfer student during the first semester of enrollment at LMC. A transfer student must apply for admission and have official transcripts sent directly to LMC to have previously taken courses evaluated for transfer equivalency credit.

### Guest Students

Students who are enrolled as degree/certificate-seeking at another institution may apply for guest status at LMC to enroll in courses intended to transfer back to the degree-seeking institution. To enroll, the student must provide proof that all prerequisites required by the specific courses have been satisfied. A guest student who wishes to be admitted as a degree/certificate-seeking LMC student for the first time must apply for admission. A guest student who previously has been admitted to LMC as a degree/certificate-seeking student must contact the Records Office at (269) 927-8107 to determine if a new application for admission is required.

### Early College Students

Students currently attending high school (including home school), who wish to participate in the Early College program (dual enroll or direct credit), must work with their high school counselor or the director of Early College to submit the appropriate documents and approvals.

### Applicant Convicted of a Felony or a Crime Requiring List on the Sex Offender Registry

An applicant convicted of a felony is an individual that has applied for admission to Lake Michigan College and has been convicted of a felony or a crime requiring listing on the Sex Offender Registry. Upon notification that the applicant was convicted of a felony or crime requiring listing on the Sex Offender Registry, a hold will be placed on the applicant's record which will prevent the applicant from registering for classes. The applicant will be required to meet with the Admission Review Panel before being approved for admission to the College.

### Enrolled Student Convicted of a Felony or a Crime Requiring Listing on the Sex Offender Registry

An enrolled student convicted of a felony or a crime requiring listing on the Sex Offender Registry is any LMC student that is currently enrolled at the College that has been convicted of a felony or a crime requiring listing on the Sex Offender Registry. Upon notification that the student was convicted of a felony or crime requiring listing on the Sex Offender Registry, a hold will be placed on the applicant's record which will prevent the applicant from registering for further classes. The applicant will be required to meet with the Admission Review Panel before being approved for continuation of classes.

## International Student Deposit Policy

Before an I-20 can be issued to an international student, the student must make a deposit equal to the first year cost of tuition, fees, and books. The deposit must be in the form of cash, credit card, money order, or cashier's check. This deposit is held exclusively for tuition and fees.

If an international student decides to terminate enrollment at Lake Michigan College, the Business Office will refund any remaining balance to the student.

## 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 applies 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. Score template located on page 133.
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.
  - f) 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 Student Resource Center will be provided special testing accommodations.

Note: Additional assessment is required for Health Science applicants.

Questions regarding Assessment for ESL students should be directed to the office of International Student Affairs at (269) 927-6181 or to the Transitional Studies department at (269) 927-1000 ext. 5183.



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

## College Board Advanced Placement Program (AP)

Lake Michigan College recognizes the College Board Advanced Placement Program (AP). College course credit may be granted if you have participated in the AP program 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 Records Office.

An "N" grade will be assigned and is not included in GPA calculation.

## College-Level Examination Program (CLEP)

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 passing 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 and that apply specifically to your major program of study.

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 States 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. A copy of your transcript must be given to the Records Office for evaluation.

## Prior Experiential Learning Credit (PEL)

If you are enrolled in one of several Career Education 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 portfolio.

1. You must be admitted to Lake Michigan College to apply for credit for prior experiential learning.
2. You must complete the "Prior Experiential Learning Credit Request" 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 Cashier's 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 granted.
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. Prior Experiential Learning credit is accepted at Lake Michigan College but may not be transferable to other institutions. If you intend to transfer to another college or university, you should discuss the ramifications of such credit with a Lake Michigan College academic or faculty advisor and your transfer institution.

## Transcripts

An official transcript is one sent to the Lake Michigan College Records Office directly from the sending institution. The Registrar's Office will only use an official transcript from a regionally accredited institution to evaluate for transfer credit.

## High School Articulation Credit

Lake Michigan College has articulation agreements with many schools and career/technical centers in Berrien, Van Buren, Ottawa, 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 Career & Technical Education 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 transfer credits. College coursework completed with a grade of "C" (2.0) or higher at regionally accredited, post-secondary institutions, may 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.

## USAFI

Veterans who have successfully completed courses through the United States Armed Forces Institute (USAFI) 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

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Prior to registering as a new student, if you are taking six or more credit hours or plan on obtaining an associate's degree or certificate, you are required to see a Student Service Academic Advisor or faculty advisor for assistance in planning your schedule for your first semester. As a current Lake Michigan College student, you are encouraged to meet with a Student Service Academic Advisor or faculty advisor prior to each semester and anytime you have questions.

### Academic Advising

As a prospective or current Lake Michigan College student, you are encouraged to meet with an academic advisor anytime 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
- Student resources, i.e. disability services, single parent/displaced homemakers, grants, and services.

If you are undecided about your area of study, or to contact Student Services call (269) 927-8128 for the Napier Avenue Campus and M-TEC<sup>SM</sup> at Lake Michigan College, (269) 695-1391 for the Bertrand Crossing Campus, or (269) 637-7500 for the South Haven Campus to make an advising appointment. Advising questions can be emailed to [advisor@lakemichigancollege.edu](mailto:advisor@lakemichigancollege.edu).

## Early College Students

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Early College provides high school students with an opportunity to get a jump start on their college education by taking 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 Early College classes must pass the appropriate portions of the LMC Assessment 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 Coordinator at Lake Michigan College at (269) 927-6198.

# Tuition, Fees & Residency

## Tuition

Because tuition and fees are subject to change, specific amounts are listed on the Lake Michigan College website and in the current class schedule.

**Tuition is based on four classifications.**

**In-district Student**  
**In-state Student**  
**Out-of-state Student**  
**International Student**

## Tuition and Fee Payment Policy

Tuition and fees must be paid in full at 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, the student agrees to financial responsibility for all charges on their College account. The student also promises to pay Lake Michigan College the full amount of the obligation by the due date. Further, the student agrees to pay any and all costs, including collection, attorney, and litigation costs incurred by Lake Michigan College in its effort to collect, should the student default on his/her 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

During the week prior to the start of the semester or term, a late registration fee will be charged to students registering for the first time.

During the first week of classes, students may only register for or add classes that have not yet met for the first time. A late registration fee may be charged. See current class schedule for fee amount.

## 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-of-state tuition rate.

## Flex Pay Program

The Flex Pay program is a low-cost way to spread tuition and fee payments out over time. Payments are automatically deducted from a checking account, MasterCard, Discover Card, or American Express. It is not a loan program so there are no interest or finance charges, and there is no credit check. All students are required to enroll in the Flex Pay program unless tuition and fees are paid in full at the time of registration by cash, check or credit card. See the current Class Schedule or College website for full details.

## 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 before the end of late registration. Drop dates are published in class schedules.
3. For classes withdrawn 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.

## Residency

A student's 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 the student's place of residency has changed. The College has the right to verify a student's place of residency.

### Change of Status

A student who is classified as an In-state student, Out-of-state student, or International student is eligible for review of residency status if proof of residency, as outlined below, is submitted prior to the first day of the semester in which the student is registered. Any status updates requested after the semester begins will be reviewed for subsequent semesters.

### 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: a student's current residency address and one or more of the following documents confirming that address as the legal home of residence. Acceptable documentation includes state driver's license, state ID card, military ID card, state voter registration card, tribal card with address, property tax statement, utility bill, or home, or renter's insurance policy.

### In-district Student

A citizen or eligible non-citizen of the United States who is (1) a student whose legal residence is within the Lake Michigan College district, or (2) a student who owns, or a documented dependent student whose parents or legal guardians own, real taxable property in the Lake Michigan College district of Berrien County, (including the Niles zip code 49120), the South Haven Public School District or Covert Township in Van Buren County, or (3) a student who is a veteran, or a dependent of a member of the U.S. Armed Forces, and who qualifies for Veteran's Education Benefits, is classified as an In-district student. In-district status is determined prior to the first day of the semester in which the student is registered.

### In-state Student

A citizen or eligible non-citizen of the United States who is a student whose legal residence is outside the Lake Michigan College district, but within Michigan, is classified as an In-state student. In-state status is determined prior to the first day of the semester in which the student is registered.

### Out-of-state Student

A citizen or eligible non-citizen of the United States who is (1) a student with legal residence in a US state other than Michigan, or (2) a student who does not qualify as an In-district student or as an In-state student as defined above, is classified as an Out-of-state student. Out-of-state status is determined at the time of registration.

### International Student

A student who is (1) not a United States citizen or (2) a student who has been admitted to the United States on a temporary, non-resident status, is classified as an International student. International students should be prepared to document status or property ownership at the time of registration.

An International student may qualify for classification according to the definitions of residency stated above if (1) the student holds a valid Alien Registration Receipt Card (Permanent Resident Card), political asylum status or (2) a student owns, or a documented dependent student whose parents or legal guardians own, property within the United States.

### Early College Students

A student participating in Early College courses is defined as a resident as described above. However, during enrollment in an Early College course held at a high school, tuition for that course is based upon the residency of the location of the high school instead of the student's residency.

### Senior Citizens

Senior citizens sixty (60) years of age and over who meet In-district criteria will qualify for tuition-free enrollment in any College credited course subject to the following provisions: (1) Registration fees and special fees (if any) for courses selected must be paid by the individual enrolled and (2) All regular registration procedures will be followed.

### 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.

# Financing Your Lake Michigan College Education

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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 23
- Student Employment Program - see page 23
- Student Loans - see page 23
- Veterans' Affairs Educational Benefits - see page 24

## 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 half 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

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:

Fall semester	March 1
Spring semester	November 1
Summer term	February 1

## STEP 1

### Complete a Lake Michigan College Application for

**Admission.** To receive financial assistance at Lake Michigan College, you must be admitted to the College.

## STEP 2

### Complete the Free Application for Federal Student Aid (FAFSA)

Students are encouraged to complete the application online at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). 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 TWO 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/scholarships](http://www.lakemichigancollege.edu/scholarships).

## STEP 4

### Verify documents (if requested)

The Financial Aid Office may request proof of information, including a federal tax transcript or other household information to confirm your eligibility. An award will not be made until all required documents are turned in. Forms required by the College (other than tax transcripts and other personal documents) may be downloaded at [www.lakemichigancollege.edu/finaid](http://www.lakemichigancollege.edu/finaid) or through Wavelink. All information will be considered confidential, and copies will be maintained in your file for auditing purposes only.

## STEP 5

### You will receive an Award Letter

After you have completed Steps 1 through 4, the Financial Aid Office will prepare a personalized financial aid package that may consist of grants, scholarships, and/or student employment. Students interested in student loans must initiate that process with the Financial Aid Office. A Financial Aid Award Letter including specific amounts and types of aid will be mailed to you. It is very important that you read this letter thoroughly to find out the terms of any financial aid awarded to you.

## STEP 6

### Financial aid funds are credited to your LMC account

Once you complete all of the steps and have registered for classes, your financial aid will be applied to your school account. If your award does not cover the balance in full, you are responsible for paying the difference. If your award does cover your balance, but you stop attending your classes, your aid may be reduced and you will be responsible for paying any funds you were not entitled to.

## 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 officially accepted to LMC and has either a high school diploma, or a GED
- be a U.S. citizen or eligible non-citizen
- maintain standards of satisfactory academic progress (see page 25)
- not be in default on a federal loan or owe money to the Department of Education
- pass all U.S. Department of Education matches and edits
- not exceed aggregate loan limits
- be registered with Selective Service, if required to do so by law (male students only)
- be enrolled for classes before the end of the "drop/add period" for each semester
- be enrolled in an eligible program of study
- begin and continue attendance in the classes that the student is enrolled in
- not be in default on a federal loan or owe money to the Department of Education
- be able to pass all other 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 spring semesters. Students must reapply for grants and meet the eligibility criteria each year.

**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). Award amounts vary based on financial need and enrollment status.

**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 to only those students who have an Expected Family Contribution of zero.

**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 and books. For more information, contact the local tribal headquarters or the Inter-Tribal Council of Michigan, Inc., at (906) 632-6896.

**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 receive 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 Student Scholarships & Grants at (888) 447-2687 or via e-mail at [osg@michigan.gov](mailto: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 Forces. For more information, contact the Office of Student Scholarships & Grants at (888) 447-2687 or via e-mail at [osg@michigan.gov](mailto: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) 927-6181 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) 927-8112.

## Direct Stafford 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 six-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)** and be enrolled at least half-time (6 or more credits per semester)
- 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 and all post-secondary school transcripts must be forwarded to the Records Office for evaluation. Discharge documents must be forwarded to the Veterans' Affairs 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 Coordinator.

### **Satisfactory Progress Standing for VA Benefits**

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 Coordinator 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 spring semesters. If the student does not enroll for either fall or spring 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 fees without the benefit of financial assistance.

## Satisfactory Academic Progress Standards

### GPA Requirement

For a student to maintain their financial aid, their GPA must meet a set of minimum requirements. Your GPA from any transfer credits will not count towards your GPA.

Credit Hours:	GPA requirement
24 credits or fewer	1.75 or higher
More than 24 credits	2.0 or higher

### Completion Rate Requirement

All students must successfully complete a minimum of 67% of their cumulative credit hours that they attempt. Grades considered unsuccessful are "E," "I," "W," "U," or any other grade that does not signify a passing grade. Transfer credits will be considered in your completion rate as both hours attempted and hours completed.

If student attempts	and passes	Completion Rate
12 credit hours	8	67%
9 credit hours	6	67%
6 credit hours	4	67%

## Maximum Credit Hours

Students may only receive financial aid up to the point that their credit hours reach 150% of the total credits required to complete their degree. This includes any transfer credits and any credits earned while the student was not receiving financial aid. In addition, if when reviewing a student's total hours it is determined that they are unable to complete their program within the 150% credit hour limit, the student's aid must be terminated at that point.

## Financial Aid Warning

When a student's cumulative GPA or completion rate fall below the minimum standards of academic progress, the student goes on Financial Aid Warning. A student who goes on Financial Aid Warning will lose their ability to receive financial aid if, after the end of their next term of enrollment, their CUMULATIVE completion rate and GPA do not meet the minimum standards.

## Financial Aid Termination

When a student who is on probation fails to maintain the minimum required standards during a subsequent semester, they will be placed on financial aid termination. During the termination period, the student cannot receive grants, scholarships, work study, or loans.

## Regaining Aid Eligibility

A student may regain financial aid eligibility by taking credits at their own cost and reaching the minimum required standards of progress for BOTH grade point average and completion rate. Alternatively, the student may complete a Satisfactory Academic Progress Appeal if they had extraordinary circumstances outside of their control that caused them to fail. See the SAP Appeal section below.

## Financial Aid Appeals

Students who failed to maintain the minimum requirements can complete a Financial Aid Appeal form if they had circumstances outside of their control. Documentation should be provided of the circumstances. Examples of circumstances the committee will consider are: personal illness or injury, death of parent, spouse or child, or other circumstances that were outside the reasonable control of the student. The appeal committee will determine whether the student can continue receiving financial aid and will notify the student in writing. Appeal forms are available online and by request at the Financial Aid Office.

## Courses below the 100 Level

Students enrolled in courses below the 100 level must successfully complete the required minimum 67% of all courses attempted. Unsuccessful completion of these courses will result in a grade of "E," "U," "W," or "I." However, since the grades received in these classes are not included as a part of the grade point average, the GPA requirement is waived. In addition, these credits will not be counted in the maximum credit hour calculation.

## Repeat Courses

For financial aid eligibility, students may take a class that they have already passed only one additional time. A passed class is defined as one where the student received "credit" for the course. So, a "D" is considered a passing grade, even if it does meet graduation requirements or does not allow you to move on to the next class. This is regulated by federal law and CANNOT be appealed.





# Program, Transfer, and Degree Information

## One- and Two-year Career Education Programs

If you want to pursue a career path that does not require a bachelor's degree, but some level of college education is necessary, the Career Education programs at Lake Michigan College offer you many options and opportunities. Career Education advisors and faculty can help you develop an academic plan to help you reach your career goals. Based on your goals and needs, you can take a few courses to gain specific skills, earn a certificate or associate's degree, and/or take courses that will transfer into the program of your choice at a four-year college or university.

### Flexible Training Options

Many Career Education courses are offered in a flexible Open Entry/ Open Exit or Open Entry/Defined Exit format. This format provides for maximum flexibility to meet your scheduling needs. Please see page 13 for more information about Open Entry program options.

### Credit for Prior Experience

Lake Michigan College values the experience that you bring to the college community. You may even be able to earn college credit for some of your experiences and accomplishments outside of the college classroom. For more information on credit for prior experience, see the Prior Experiential Learning Credit section on page 18.

### Associate Degree Programs - Career and Technical Education

The following associate degree programs are offered through the Career Education Division. For detailed program information and program faculty contact information, see the Programs section beginning on page 33. For answers to questions about specific programs, please contact the appropriate Department Chair or Lead Faculty listed on the program page or contact a Career Education Advisory.

- |                                       |                                    |
|---------------------------------------|------------------------------------|
| Accounting                            | General Technologies               |
| *Administrative Office Systems        | *Graphic Design                    |
| Agriculture:                          | *Hospitality Management            |
| *Commercial Horticulture              | *Industrial Maintenance Technology |
| Landscape Horticulture                | Law Enforcement                    |
| Viticulture                           | *Legal Office Systems              |
| Apprentice Training                   | Logistics                          |
| Business Management                   | *Magnetic Resonance Imaging (MRI)  |
| *Casino Management                    | *Machine Tool Technology           |
| Computer Information Systems:         | Medical Assistant Technology       |
| *Information Technology               | *Medical Office Systems            |
| *Networking                           | *Nursing (RN), (PN)                |
| *Programming                          | *Paramedic                         |
| *Web                                  | Radiologic Technology              |
| Corrections, Probation, and Parole    | Respiratory Care                   |
| Dental Assisting                      | *Skilled Trades Technology         |
| Dental Hygienist                      | Water Purification Technology      |
| Diagnostic Medical Sonography         |                                    |
| *Drafting and Design                  |                                    |
| *Early Childhood Education            |                                    |
| **Emergency Medical Services & Health |                                    |
| Energy Production Technology:         |                                    |
| Crafts Electrical                     |                                    |
| Crafts Instrumentation and Control    |                                    |
| Crafts Mechanical                     |                                    |
| Fossil Fuels                          |                                    |
| HPRP                                  |                                    |
| Power Plant                           |                                    |

\* Students can earn either a certificate or an associate's degree with this program.

\*\*Certificate program only.

## Career & Technical Education

### Certificate of Achievement Programs

Certificate programs are closely aligned with the needs of business and industry and are designed to prepare you for entry-level employment or upgrading your skills for greater employment opportunities.

Administrative Office Systems  
CIS - Information Technology  
CIS – PC and Network Technician  
CIS – Programming  
CIS – Web  
Cisco  
Customer Service  
Dental Assisting  
Drafting and Design  
Drafting & Design Technology  
Early Childhood Education  
Fluid Power

Industrial Computing  
Graphic Design  
Hospitality Management  
Hospitality Management -  
Casino Management  
Legal Office Systems  
Line Worker  
Logistics  
Machine Tool  
Machine Tool Technology  
Magnetic Resonance Imaging  
Management

Manufacturing Production  
Marketing  
Numerical Control Specialty  
Medical Office Systems  
Nursing, Practical  
Paramedic  
Skilled Trades Technology  
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)

## 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-of-state 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 semester 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

When you graduate from Lake Michigan College with an Associate in Arts, Associate in Science, Associate in Business Administration degree, or General Education Certificate of Achievement certificate, your transcript will have the notation "MACRAO Agreement Satisfied."

**If you have not received one of these associate's degrees but you have completed the MACRAO Agreement requirements as outlined below, you can have the "MACRAO Agreement Satisfied" notation placed on your transcript by contacting the Records Office.**

#### English 101 or Honors 250 and English 102 or 103 or Honors 251

##### Natural Science – 8 credits

Biology 101, 108, 111, 112, 204, 205, 206, 210, 212;

Honors 101, 111

Chemistry 101, 102, 104, 105, 106, 111, 112, 203, 204

Physical Science 101, 104, 205

Physics 101, 102, 104, 201, 202

Mathematics 122, 128, 129, 130, 135, 151, 201, 202, 216, 252; BUSA  
216; Honors 150

At least one course must be a laboratory science course.

Courses must be taken in more than one academic discipline.

##### Social Science – 8 to 9 credits

Business Administration (Economics) 203, 204

Geography 100, 101, 102

History 101, 102, 201, 202, 204, 205, 207, 209, 201; Honors 214, 215

Political Science 101, 102, 202, 203, 204, 250, 260; Honors 141, 143

Psychology 201, 203, 204, 205, 206, 230, 231, 250; Honors 121, 203, 231

Sociology 101, 201, 202, 204, 205, 210, 250

Courses must be taken in more than one academic discipline.

##### Humanities – 8 to 9 credits

Art 101, 102, 200, 201, 202, 203, 204

English 201, 203, 204, 205, 206, 208, 209, 210, 211, 214, 215, 216,  
217, 220; Honors 208, 256, 258

Foreign Language\* 101-202 (excluding FORL 123, 124), 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

Drama 201

Courses must be taken in more than one academic discipline.

NOTE: See Honors Courses listed under Course Descriptions.

\*Foreign Language requirements for individual baccalaureate degree programs will be the prerogative of the four-year college.

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 four-year 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](http://www.macrao.org) for transfer equivalencies and curriculum guides. Programs that you can prepare for include:

Art  
Biology  
Business Administration  
Chemistry  
Chiropractic  
Communication  
Computer Science  
Dentistry  
Elementary Education  
Engineering  
English  
Environmental Science  
Foreign Language  
Forensics  
General Education  
Certificate of Achievement

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  
Optometry

Pharmacy  
Philosophy  
Physical Education and Wellness  
Physical Science  
Physical Therapy  
Physician's Assistant  
Physics  
Political Science  
Psychology  
Secondary Education  
Social Work  
Sociology  
Theatre  
Veterinary Medicine

## Typical Course Loads

**Full-time (14 week) status: 12+ credits**

**Part-time status: 6-11 credits**

To 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 summer classes to reduce their course load during the regular school year. Summer term courses at Lake Michigan College are 7- to 14-weeks long compared to the 14-week fall and spring semester courses.

## 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](http://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 of 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 spring semesters or summer term, with commencement exercises held annually at the close of the spring semester in early May. Participation in commencement 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 matriculation 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 waiver 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. **Bachelor Degree:** Satisfactory completion of at least 122 semester hours of credit. Some programs may require more than 122 credit hours. Of these 122 or more total credit hours required for the bachelor degree, a minimum of 30 credit hours must be taken at Lake Michigan College; credits earned through College Level Examination Program (CLEP) credit, transfer credit (TR), prior experiential learning (PEL), articulated credit (AC), Advanced Placement (AP), or credit by examination will not be counted toward this requirement. The additional 92 or more credit hours may be fulfilled by Lake Michigan College courses\*, CLEP, TR, PEL, AC, AP, and credit by examination.

**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.

## December Graduation

If you apply for December graduation, you must complete all program requirements by the end of the fall semester. If you don't complete all program requirements 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 the second Friday in November.

## May Graduation

If you apply for May graduation, you can finish any program requirement during the summer term immediately following if the course is offered. If, as a May graduate, you have not completed your program requirement by the end of the summer term, 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 the last Monday in February.

## August Graduation

If you apply for August graduation, you must complete all program requirements by the end of the summer term. If you do not complete all program requirements by the end of the summer term, you will have to re-apply and pay again for another graduation date. As an August graduate, you can attend the following year's May commencement ceremony.

### August Graduation Timeline

Applications available May 1.

Last day to apply for August graduation is the second Friday in June.

## The Difference between Graduation and the Commencement Ceremony

**Graduation** refers to receiving a degree, diploma, or certificate once you have been certified by the College as having met all requirements. After you submit an application for graduation, confirmation is made that all graduation requirements have been met, and that the degree or certificate is noted in the College's student information system so that it displays on your LMC transcript. Diplomas are printed and mailed after the degree confirmation process is complete, approximately six weeks after the end of the semester.

**Commencement ceremony** is an event. It is an opportunity for students, families, friends, and the LMC community to celebrate your academic accomplishments. Participation in the ceremony does not mean that you have graduated. You will not receive your degree or diploma on that day. The College holds one ceremony each year.

## Fees & Diplomas

The graduation application fee is the same for either the May, August, or December graduation dates. This fee is non-refundable. Graduation statements will be posted to your transcripts and your diploma will be mailed approximately 30 days 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 regionally accredited college will be accepted when they apply to your program at 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. At 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 unpaid 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. The minimum group requirements for the various degrees are outlined on page 31.

## Collegiate Assessment & Academic Proficiency Test (CAAP)

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.

## College Requirements

- English 101 or Honors 250 and English 102 or 103 or Honors 251
- Political Science 101 or 102; or History 201 or 202
- Physical Education 200, 212, or 214 or Honors 210
- Outcomes Assessment Test

NOTE: Credit from only one of the following courses will count toward LMC graduation: PHED 200, 212, or 214 or Honors 210.

## 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 Natural Science

#### Group Ia

- Biology 101, 108, 111, 112, 204, 205, 206, 210, 212; Honors 101, 111

#### Group Ib

- Chemistry 101, 102, 104, 105, 106, 111, 112, 203, 204
- Physical Science 101, 104, 205
- Physics 101, 102, 104, 201, 202

#### Group Ic

- Mathematics 122, 128, 129, 130, 135, 151, 201, 202, 216, 252; BUSA 216; Honors 150

### Group II Social Science

- Business Administration (Economics) 203, 204
- Geography 100, 101, 102
- History 101, 102, 201, 202, 204, 205, 207, 209, 201; Honors 214, 215
- Political Science 101, 102, 202, 203, 204, 250, 260; Honors 141, 143
- Psychology 201, 203, 204, 205, 206, 230, 231, 250; Honors 121, 203, 231
- Sociology 101, 201, 202, 204, 205, 210, 250

Courses must be taken in more than one academic discipline.

### Group III Humanities

- Art 101, 102, 200, 201, 202, 203, 204
- English 201, 203, 204, 205, 206, 208, 209, 210, 211, 214, 215, 216, 217, 220; Honors 208, 256, 258
- Foreign Language 101-202 (excluding FORL 123, 124), 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
- Drama 201

Courses must be taken in more than one academic discipline.

NOTE: See Honors Courses listed under Course Descriptions.

## Specific Degree Requirements

### Associate in Arts

Course Type	Number of Semester Hours	Notes
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

Course Type	Number of Semester Hours	Notes
College requirements	10	
Group I a, b, & c	23-24	At least 8 hours must be from Group I a or b; 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

Course Type	Number of 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 Sociology 101 or Psychology 201
Communication 101	3	
Group III	6	In at least two areas
Department Requirements	26	See Business Administration program
Total Hours	62	

### Associate in Applied Science

Course Type	Number of 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 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 Semester Hours	Notes
College requirements	10	
Department Requirements	51+	See specific program
Total Hours	61+	

### Associate in Skilled Trade Technologies

Course Type	Number of Semester Hours	Notes
College requirements	10	
Support courses	14.5	See specific program major
Major courses and electives	36.5	See specific program major
Total Hours	61+	

### Associate in General Studies

Course Type	Number of Semester Hours	Gen. Ed. Requirements
CIS 100 or 102	3 or 1	7
ENGL 101 and 102 or 103	6	2 and 3
POSC 101 or 102 or 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	

## Additional Associate Degrees

You can earn additional associate 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 to 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

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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 associate's 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.

# Programs of Instruction

Field of Study	Degree								Certificate	Page #
	A.A.	A.S.	A.B.A.	A.A.S.	A.A.B.	A.G.S.	A.I.T.	A.S.T.		
Accounting					X					36
Administrative Office Systems					X				X	37
Agriculture										
Commercial Horticulture Operations				X						38
Landscape Horticulture				X						40
Viticulture				X						41
Art	X									42
Biology		X								43
Business Administration			X							44
Chemistry		X								45
Chiropractic (Pre)		X								46
Communication	X									47
Computer Information Systems										
Information Technology Option					X				X	48
Networking Option					X				X	49
Programming Option					X				X	50
Web Option					X				X	51
Computer Science for WMU				X						52
Corrections, Probation & Parole		X								53
Dental Assisting				X					X	54
Dental Hygienist				X						55
Dentistry (Pre)		X								56
Diagnostic Medical Sonography				X						57
Drafting & Design							X		X	58
Early Childhood Education				X					X	59
Education										
Elementary	X									60
Elementary WMU/LMC				X						61
Secondary	X	X								62
Energy										
Crafts Electrical							X			63
Crafts Mechanical							X			64
Crafts Instrumentation							X			65
Fossil Fuels							X			66
HPRP							X			67
Power Plant							X			68



# Programs of Instruction continued

Field of Study	Degree								Certificate	Page #
	A.A.	A.S.	A.B.A.	A.A.S.	A.A.B.	A.G.S.	A.I.T.	A.S.T.		
Engineering (Pre)		X								69
English	X									70
Environmental Science		X								71
Foreign Language	X									72
Forensics (Pre)		X								73
General Education Certificate									X	74
General Studies						X				75
General Technologies							X			76
Geography	X									77
Geology		X								78
Graphic Design									X	79
Health		X								80
History	X									81
Honors Curriculum										82
Hospitality Management				X					X	83
Hospitality Management - Casino Management				X					X	84
Hospitality & Tourism Management				X						85
Humanities	X									86
Industrial Maintenance Technology							X			87
Fluid Power									X	88
Industrial Computing									X	88
Law (Pre)	X									89
Law Enforcement				X						90
Legal Office Systems					X				X	92
Liberal Arts	X									93
Line Worker									X	94
Logistics									X	95
Machine Tool Technology							X		X	96
Machine Tool Certificate									X	97
Numerical Control Specialty									X	97
Technology									X	97
Manufacturing Production									X	97
Magnetic Resonance Imaging (MRI)				X					X	98

Field of Study	Degree								Certificate	Page #
	A.A.	A.S.	A.B.A.	A.A.S.	A.A.B.	A.G.S.	A.I.T.	A.S.T.		
Management and Marketing					X					99
Customer Service									X	100
Management									X	100
Marketing									X	100
Manufacturing Engineering (WMU)				X						101
Mathematics		X								102
Medical Assistant Technology				X						103
Medical Office Systems					X				X	104
Medicine & Osteopathic Medicine (Pre)		X								105
Mortuary Science (Pre)		X								106
Mortuary Science (Pre) for Wayne State		X								107
Music	X			X						108-109
Nursing				X					X	110-113
Optometry (Pre)		X								114
Paramedic				X					X	115
Pharmacy (Pre)		X								116
Philosophy	X									117
Physical Education & Wellness		X								118
Physical Science		X								119
Pre-Physical Therapy		X								120
Physician Assistant (Pre)		X								121
Physics		X								122
Political Science	X									123
Psychology	X									124
Radiologic Technology				X						125
Respiratory Care (Respiratory Therapy)				X						126
Skilled Trades Technology								X	X	127
Sociology/Social Work (Pre)	X									128
Theatre	X									129
Veterinary Medicine (Pre)		X								130
Water Purification Technology				X						131
Emergency Medical Services									X	132
Health									X	132

# Accounting

## Associate in Applied Business Degree Program Code 110

**Advisor:** Erick Pifer, (269) 927-1000 ext. 5004, pifer@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, Technical 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

Mathematics 122, Intermediate Algebra.....	4
Psychology 201, Introduction to Psychology.....	3
Communication 101, Introduction to Public Speaking.....	3
Natural Science Elective, Group I a or b.....	4 or 5
Humanities Elective, Group III.....	3 or 4

#### 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 BUSA 265 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 Business degree.

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### Sample Program Sequences

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	Science
BUSA 219	Humanities
POSC 101 or HIST 201	
Elective	

# Administrative Office Systems

**Certificate of Achievement - Office Automation Specialist** Program Code 142

**Associate in Applied Business Degree** Program Code 144

**Advisor:** Christine Davis, (269) 927-8877, cdavis@lakemichigancollege.edu

## Program Prerequisites

Proficiency in reading, English, and mathematics on the assessment or successful completion of 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, Technical 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

Communication 101, Introduction to Public Speaking.....	3
Group I, II, or III Electives (with COMM 101 to total 9 credits in at least two groups) .....	6

### Major Requirements

Business Administration 100, Business Mathematics .....	3
Business Administration 101, Business Accounting I .....	3
*Business Administration 103, Introduction to Business .....	3
*Business Administration 210, Business Correspondence .....	3
*Office Information Systems 104, Proofreading and Editing .....	2
*Office Information Systems 114, Computer Applications 1 .....	3
*Office Information Systems 125, Records Management.....	3
*Office Information Systems 201, Computer Applications 2 .....	3
*Office Information Systems 205, Integrated Business Projects .....	4
*Office Information Systems 211, Office Procedures .....	3
Office Information Systems 261, Office Co-op I .....	3

### Program Electives

**Select 9 credit hours for degree, 3 credit hours for certificate**

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
Computer Information Systems 295, Project Management .....	3
Graphic Design 101, Digital Studio .....	3
Office Information Systems 262, Office Co-op II .....	3

\* Required for certificate program

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

NOTE: You should notify your program 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 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 agencies.

## Certificate & Degree Options

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

By completing the 30-credit program for Office Automation Specialist (courses denoted with single asterisk (\*)), you may apply for a Certificate of Achievement.

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer).

## 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	BUSA 103
BUSA 210	OIS 201
OIS 211	OIS 205
CIS 104	Program Elective

### Associate's Degree Program

Semester 1	Semester 2	Semester 3
ENGL 101	BUSA 101	BUSA 210
OIS 114	BUSA 103	OIS 125
BUSA 100	ENGL 102 or	OIS 104
OIS 211	ENGL 103	Program Elective
POSC 101 or	OIS 201	
POSC 102 or	PHED 200	
HIST 201 or		
HIST 202		

### Semester 4

OIS 205  
OIS 261  
COMM 101  
Program Elective

# Agriculture – Commercial Horticulture Operations

## Associate in Applied Science Degree

### Commercial Horticulture Operations Program Code 280

**Advisors:** Stacey Rocklin, (269) 927-8772, rocklin@msu.edu  
Ken Flowers, (269) 927-4103, 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.

## LMC College Requirements:

## Credit Hours

English 101, English Composition .....	LMC - 3
English 102, English Composition, or English 103, Technical Writing .....	LMC - 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 .....	LMC - 3
Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health .....	LMC - 1 or 3
Outcomes Assessment Test must be completed prior to graduation.	

## Support Courses

### MSU Institute of Agricultural Technology

(note: These are MSU courses, not LMC courses)

*(All MSU courses will be transcribed as elective credit. Please see advisor for explanation.)*

Ag. Technology 293, Professional Internship in Ag. Tech.....	MSU - 3 min.
Horticulture 215, Plant Industries Seminar .....	MSU - 1
Plant Pathology 200, Plant Diseases and Their Pathogens.....	MSU - 3
Entomology 111, Basics of Applied Entomology .....	MSU - 3
Crop and Soil Sciences 210, Fund. of Soil & Landscape Science....	MSU - 3
Horticulture 213, Landscape Maintenance.....	MSU - 2
Horticulture 218, Landscape Irrigation .....	MSU - 3
Environmental Studies and Agriscience 225, Land & Environmental Issues in Law and Policy .....	MSU - 3

## Lake Michigan College

Business 203, Principles of Economics (Macro) .....	LMC - 3
Biology 112, Principles of Biology II .....	LMC - 4
Chemistry 104, Fundamentals of General, Organic and Biochemistry .....	LMC - 4
Computer Information Systems 100, Introduction to Computer Literacy .....	LMC - 3
Mathematics 122, Intermediate Algebra .....	LMC - 4
Group III Humanities (Not including: COMM 101) .....	LMC - 3

## Major Courses

(note: These are MSU courses, not LMC courses)

### MSU Commercial Horticulture Operations

*Choose minimum 9 required credits from list of courses below.*

Horticulture 205, Plant Mineral Nutrition .....	MSU - 1
Horticulture 208, Pruning and Training Systems in Horticulture .....	MSU - 3
Horticulture 221, Greenhouse Structures and Management .....	MSU - 3
Horticulture 242, Passive Solar Greenhouses for Protected Cultivation ....	MSU - 1
Horticulture 251, Organic Farming Principles and Practices .....	MSU - 3
Horticulture 253, Compost Production and Use .....	MSU - 1
Horticulture 332, Tree Fruit Production and Management .....	MSU - 2
Horticulture 335, Berry Crop Production and Management .....	MSU - 1
Horticulture 341, Vegetable Production and Management .....	MSU - 3

## About the Area of Study

Lake Michigan College and MSU's Institute of Agricultural Technology have formed a partnership that allows students to earn an Associate in Applied Science degree from LMC and at the same time also earn a certificate from MSU. This unique Agriculture degree plus certificate provides students with a solid background in the plant sciences along with specific expertise and skills needed for careers in the horticulture industry. With these skills, students in the Commercial Horticulture Operations Option find jobs growing plants in nurseries, orchards and greenhouses, locally or beyond. This is a great option for students who love growing plants and don't want to go all the way to East Lansing for this same degree.

## Degree Options

Upon completion of this program, students may apply for an Associate in Applied Science degree from Lake Michigan College and a certificate from the MSU Institute of Agricultural Technology in Applied Plant Science with a concentration in Commercial Horticulture Operations.

## Transfer Option

This MSU program is offered only in southwest Michigan in partnership with Lake Michigan College. For students who wish to continue their education, LMC credits will transfer to a bachelor's program at MSU.

## Sample Course Sequence

\*An advisor will help you develop a program plan, apply to MSU's IAT, register for classes and choose electives.

# Agriculture – Landscape Horticulture

## Associate in Applied Science Degree

### Landscape Horticulture Program Code 282

**Advisors:** Stacey Rocklin, (269) 927-8772, rocklin@msu.edu  
Ken Flowers, (269) 927-4103, flowers@lakemichigancollege.edu

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

#### LMC College Requirements:

#### Credit Hours

English 101, English Composition .....	LMC - 3
English 102, English Composition, or English 103, Technical Writing .....	LMC - 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 .....	LMC - 3
Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health .....	LMC - 1 or 3
Outcomes Assessment Test must be completed prior to graduation.	

#### Support Courses

##### MSU Institute of Agricultural Technology

(note: These are MSU courses, not LMC courses)

(All MSU courses will be transcribed as elective credit. Please see advisor for explanation.)

Ag. Technology 293, Professional Internship in Ag. Tech.....	MSU - 3 min.
Horticulture 215, Plant Industries Seminar .....	MSU - 1
Plant Pathology 200, Plant Diseases and Their Pathogens.....	MSU - 3
Entomology 111, Basics of Applied Entomology .....	MSU - 3
Crop and Soil Sciences 210, Fund. of Soil & Landscape Science .....	MSU - 3
Horticulture 213, Landscape Maintenance.....	MSU - 2
Horticulture 218, Landscape Irrigation .....	MSU - 3
Environmental Studies and Agriscience 225, Land & Environmental Issues in Law and Policy .....	MSU - 3

##### Lake Michigan College

Business 203, Principles of Economics (Macro) .....	LMC - 3
Biology 112, Principles of Biology II .....	LMC - 4
Chemistry 104, Fundamentals of General, Organic, and Biochemistry .....	LMC - 4
Computer Information Systems 100, Introduction to Computer Literacy .....	LMC - 3
Mathematics 122, Intermediate Algebra .....	LMC - 4
Group III Humanities (Not including: COMM 101) ...	LMC - 3

#### Major Courses

(note: These are MSU courses, not LMC courses)

##### Landscape Horticulture

HRT 111 Landscape Design .....	MSU 3
HRT 211 Landscape Plants I .....	MSU - 3
HRT 212 Landscape Plants II .....	MSU - 3

#### About the Area of Study

Lake Michigan College and MSU's Institute of Agricultural Technology have formed a partnership that allows students to earn an Associate in Applied Science degree from LMC and at the same time also earn a certificate from MSU. This unique Agriculture degree plus certificate provides students with a solid background in the plant sciences along with specific expertise and skills needed for careers in the horticulture industry. With these skills, students in the Landscape Horticulture Option find jobs installing and maintaining plants, gardens and hardscapes at commercial sites and residences. The Landscape Horticulture Option is great for students who want the same Michigan State University two-year degree, but now it is offered locally.

#### Degree Options

Upon completion of this program, students may apply for an Associate in Applied Science degree from LMC and a Certificate from the MSU Institute of Agricultural Technology in Applied Plant Science with a concentration in Landscape Horticulture.

#### Transfer Option

This MSU program is offered only in southwest Michigan in partnership with Lake Michigan College. For students who wish to continue their education, LMC credits will transfer to a bachelor's program at MSU.

#### Sample Course Sequence

\*An advisor will help you develop a program plan, apply to MSU's Institute of Ag Tech, register for classes and choose electives.

# Agriculture – Viticulture

## Associate in Applied Science Degree Program Code 282

**Advisors:** Stacey Rocklin, (269) 927-8772, rocklin@msu.edu  
Ken Flowers, (269) 927-4103, 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.

### LMC College Requirements:

### Credit Hours

English 101, English Composition .....	LMC - 3
English 102, English Composition, or English 103, Technical Writing .....	LMC - 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 .....	LMC - 3
Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health .....	LMC - 1 or 3
Outcomes Assessment Test must be completed prior to graduation.	

### Support Courses

#### MSU Institute of Agricultural Technology

(note: These are MSU courses, not LMC courses)

(All MSU courses will be transcribed as elective credit. Please see advisor for explanation.)

Ag. Technology 293, Professional Internship in Ag. Tech.....	MSU - 3 min.
Plant Pathology 200, Plant Diseases and Their Pathogens.....	MSU - 3
Entomology 111, Basics of Applied Entomology .....	MSU - 3
Environmental Studies and Agriscience 225, Land & Environmental Issues in Law and Policy .....	MSU - 3
Horticulture 334, Current Issues in Viticulture and Enology.....	MSU - 3
Horticulture 432, Principles and Practices of Grape Production I .....	MSU - 3

### Lake Michigan College

Business 203, Principles of Economics (Macro) .....	LMC - 3
Biology 112, Principles of Biology II .....	LMC - 4
Chemistry 104, Fundamentals of General, Organic and Biochemistry .....	LMC - 4
Computer Information Systems 100, Introduction to Computer Literacy .....	LMC - 3
Mathematics 122, Intermediate Algebra .....	LMC - 4
Group III Humanities (Not including: COMM 101) .....	LMC - 3

### Major Courses

(note: These are MSU courses, not LMC courses)

#### MSU Institute of Agricultural Technology

Viticulture 111, Introduction to Viticulture & Vineyard Establishment .....	VESTA - 3
Viticulture 113, Winter Viticulture Technology.....	VESTA - 2
Viticulture 114, Spring Viticulture Technology.....	VESTA - 2
Viticulture 115, Summer Viticulture Technology .....	VESTA - 2
Viticulture 190, Vineyard Safety .....	VESTA - 1
Viticulture 293, Soils for Viticulture .....	VESTA - 3

### Viticulture Electives Choose 1 course

Viticulture 146, Introduction to Enology, or .....	VESTA - 3
Viticulture 266, Sensory Evaluation.....	VESTA - 3

Please note, all VESTA courses are offered online only. Please contact advisor for help enrolling in VESTA courses. VESTA is the Viticulture and Enology Science and Technology Alliance Regional Center of Excellence, for more information see their website at [www.vesta-usa.org](http://www.vesta-usa.org).

### About the Area of Study

The LMC Associate in Applied Science degree plus the MSU Applied Plant Science Certificate 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.

### Degree Options

Upon completion of this program, students may apply for an Associate in Applied Science degree from LMC and a Certificate from the MSU Institute of Agricultural Technology in Viticulture.

### Transfer Option

This MSU program is offered only in southwest Michigan in partnership with Lake Michigan College. For students who wish to continue their education, LMC credits may transfer to four-year universities around the region; check with an advisor to be sure before taking classes.

### Sample Course Sequence

\*An advisor will help you develop a program plan, apply to MSU's Institute of Ag Tech and VESTA, register for classes and choose electives.

# Art

## Associate in Arts Degree - TRANSFER PROGRAM Program Code 031

**Advisor:** Brandon Pierce, (269) 927-8767 pierce@lakemichigancollege.edu

### 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, or English 103, Technical 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
Group Ia elective.....	4
Group Ib elective.....	4 or 5
Group Ic elective .....	3, 4 or 5
Group II electives.....	6
Group III electives.....	9
General Electives (includes any ART classes in catalog) .....	24 or 25

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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.



# Biology

## Associate in Science Degree - TRANSFER PROGRAM Program Code 061

**Advisor:** Dr. Susan Lentz, (269) 927-8624, [lentz@lakemichigancollege.edu](mailto:lentz@lakemichigancollege.edu)  
Dr. Fran Miles, (269) 927-1000 ext. 7157, [miles@lakemichigancollege.edu](mailto:miles@lakemichigancollege.edu)  
Frank Stijnman (269) 927-8862, [stijnman@lakemichigancollege.edu](mailto:stijnman@lakemichigancollege.edu)  
Dr. Melissa Howse-Willard (269) 927-8623, [willard@lakemichigancollege.edu](mailto: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, or English 103, Technical 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
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
General electives .....	7
Group II electives .....	6
Group III electives .....	9

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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 courses which best fit the senior college program to which you plan to transfer.

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

# Business Administration

## Associate in Business Administration Degree - TRANSFER PROGRAM

Program Code 150

**Advisor:** Lisa Augustyniak, (269) 927-8171, [augustyn@lakemichigancollege.edu](mailto:augustyn@lakemichigancollege.edu)  
Greg Iwaniuk, (269) 927-1000 ext. 2949, [iwaniuk@lakemichigancollege.edu](mailto:iwaniuk@lakemichigancollege.edu)  
Erick Pifer, (269) 927-1000 ext. 5004, [pifer@lakemichigancollege.edu](mailto:pifer@lakemichigancollege.edu)  
Joe Zwiller, (269) 927-1000 ext. 5003, [jzwiller@lakemichigancollege.edu](mailto:jzwiller@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 102, English Composition, or English 103, Technical 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

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. 30) .....	6
Natural Science Elective, Group Ia or Ib (See pg. 30).....	4 or 5

### 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 Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### Sample Course Sequence

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

### Associate's Degree Program

Semester 1	Semester 2
BUSA 103	BUSA 204
BUSA 203	BUSA 216
ENGL 101	ENGL 102 or
MATH 128	ENGL 103
SOC 101 or	POSC 101 or
PSYC 201	POSC 102 or
	HIST 201 or
	HIST 202
	Lab Science Elective
Semester 3	Semester 4
BUSA 201	BUSA 202
BUSA 209	COMM 101
BUSA 220	CIS 251
CIS 100	HUMN Elective
HUMN Elective	PHED 200
General Elective	

# Chemistry

## Associate in Science Degree - TRANSFER PROGRAM Program Code 064

**Advisor:** Dr. Bal Barot, (269)927-8754, barot@lakemichigancollege.edu  
Dr. Paige Eagan, (269) 927-8184, eagan@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, or English 103, Technical 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
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
Group II Social Science electives.....	6
Group III Humanities electives.....	9

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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 four-year 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.

# Chiropractic (Pre)

## Associate in Science Degree - TRANSFER PROGRAM Program Code 080

**Advisor:** Frank Stijnman, (269) 927-8862, [stijnman@lakemichigancollege.edu](mailto:stijnman@lakemichigancollege.edu)  
Dr. Fran Miles, (269) 927-1000 ext. 7157, [miles@lakemichigancollege.edu](mailto:miles@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, or English 103, Technical 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
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
Group II Social Science electives.....	6
Group III Humanities electives.....	9
General Electives.....	5

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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 Pre-Chiropractic advisor will assist you in planning a program of study.

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

# Communication

## Associate in Arts Degree - TRANSFER PROGRAM Program Code 043

**Advisor:** Sharon Klemm, (269) 927-1000 ext. 5177, klemms@lakemichigancollege.edu

### Sample Transfer Program

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

#### Courses

#### Credit Hours

English 101, English Composition.....	3
English 102, English Composition, or English 103, Technical 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
Communication 101, Introduction to Public Speaking.....	3
Sociology 101, Principles of Sociology.....	3
Group Ia elective.....	4
Group Ib elective.....	4
Group Ic elective .....	3 or 4 or 5
Group II Social Science electives.....	3
Group III Humanities electives.....	6
General Electives.....	24 or 25

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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

**Level I Information Technology Certificate** Program Code 161A

**Associate in Applied Business Degree - Information Technology** Program Code 160A

**Advisors:** Charles Olszewski, (269) 927-8749, [olszewski@lakemichigancollege.edu](mailto: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, Technical 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.....	1 or 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
Biology 101, Biological Science.....	4

### Major Requirements

*Computer Information Systems 106, Intro to Operating Systems.....	3
*Computer Information Systems 108, Computer Operations, Microcomputing....	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 251, Computer Programming. BASIC.....	3
Computer Information Systems 254, Computer Programming. C.....	3
Computer Information Systems 260, Computer Programming. Visual BASIC.....	3
Computer Information Systems 264, Computer Programming. C++.....	3

### Electives (Select 6 credit hours)

*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 261, Co-op 1 or BUSA/OIS 261.....	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 255, Structured Query Language.....	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.

**Level I certificate is 15 credit hours.**

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit

[www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

## 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	

### 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

# 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:** Charles Olszewski, (269) 927-8749, [olszewski@lakemichigancollege.edu](mailto: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, Technical 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 122, Intermediate Algebra.....	4
PSYC 201, Introduction to Psychology.....	3
BUSA 204, Principles of Economics (Micro).....	3
BUSA 201, Principles of Accounting I .....	4
PHYS 101, General Physics I, or any Group 1a or b.....	4

### Major Requirements

#* CIS 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.....	3
#* CIS 156 Practical Security .....	3
#* CIS 200 PC Hardware .....	3
#* CIS 226 Cisco INTRO review.....	3
# CIS 228 Switched and Routed Networks .....	3
# CIS 242 Windows Servers .....	3

### Electives (Select 9 credit hours)

COMM 101, Introduction to Public Speaking .....	3
PHIL 250, Sophomore Seminar in Philosophy, or PHIL 102, Intro to Logic.....	3
CIS 111 Database Concepts .....	3
CIS 117 Intro Game Design Theory.....	3
CIS 118 Basic Web Design.....	3
CIS 124 Database skills.....	1
CIS 136 Game Design II.....	3
CIS 219 Advanced Web Design .....	3
CIS 220 Web Programming .....	3
CIS 221 Server Side Programming.....	3
CIS 224 Advanced Database skills.....	1
# CIS 227 Cisco ICND 2/CCNA review .....	3
# CIS 241 Switching and Routing.....	3
CIS 250 Advanced Topics, CIS.....	4
CIS 251 Computer Programming - BASIC.....	3
CIS 254 Computer Programming - C.....	3
CIS 255 Structured Query Language.....	3
CIS 260 Computer Programming - Visual Basic.....	3
CIS 261 Co-op I .....	3
CIS 264 Computer Programming - C++.....	3

\* Indicates courses needed for Level I certificate.

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

# Indicates courses need for Certificate of Achievement - Cisco

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 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 Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit

[www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

## Sample Course Sequence

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

### Level I Certificate Program 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, support course, or elective	College requirement, support course, or elective

Semester 3	Semester 4
CIS 228	College requirement, support course, or elective
CIS 242	
College requirement, support course, or elective	

# Computer Information Systems

**Level I Certificate Programming Option** Program Code 161C

**Associate in Applied Business Degree - Programming Option** Program Code 160C

**Advisors:** Charles Olszewski, (269) 927-8749, [olszewski@lakemichigancollege.edu](mailto: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, Technical 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.....	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 250, Sophomore Seminar in Philosophy, or Philosophy 102, Intro to Logic.....	3
Business 204, Principles of Economics (Micro).....	3
Business 201, Principles of Accounting I.....	4
Biology 101, Biological Science.....	4

### Major Requirements

*CIS 106, Intro to Operating Systems.....	3
*CIS 108, Computer Operations, Microcomputing.....	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 264, Computer Programming - C++.....	3

### Electives (select 6 credit hours)

CIS 111, Database Concepts.....	3
CIS 118, Basic Web Design.....	3
CIS 140, Computer Networking Fundamentals.....	3
CIS 145, Computer Programming - COBOL I.....	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 261, Co-op I, or BUSA 261 or OIS 261.....	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.

## 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.

**Level I certificate is 15 credit hours.**

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit

[www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

## 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	CIS 254

### 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	MATH 128
PHED 200	
Semester 3	Semester 4
PSYC 201	Elective
CIS 155	PHIL 250
CIS 200	CIS 261
CIS 245	CIS 264
Elective	POSC 101 or POSC 102 or HIST 201 or HIST 202

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



# Computer Information Systems

**Level I Certificate Web Option** Program Code 161D

**Associate in Applied Business Degree - Web Option** Program Code 160D

**Advisors:** Charles Olszewski, (269) 927-8749, [olszewski@lakemichigancollege.edu](mailto: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 prerequisite

## Degree & Certificate Requirements Credit Hours

### College Requirements

English 101, English Composition.....	3
English 103, Technical 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
Biology 101, Biological Science.....	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

### Electives (Select 6 credit hours)

CIS 111, Database Concepts.....	3
CIS 145, Computer Programming - COBOL 1.....	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 261, Co-op I, or BUSA 261 or OIS 261.....	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 take CIS 261 before beginning your second-year classes.

## 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.

**Level I certificate is 15 credit hours.**

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit

[www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

## Sample Course Sequence

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

### Level I Certificate Program

Semester 1	Semester 2	Semester 3
CIS 106	CIS 118	CIS 219
CIS 108	CIS 251	

### 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

# Computer Science for Western Michigan University

## Transfer Program

**Associate in Applied Science** Program Code 170

**Advisors:** James Larson, (269) 927-8962 ext. 5148, [larsen@lakemichigancollege.edu](mailto:larsen@lakemichigancollege.edu)  
Mike Durren, (269) 927-8963 ext. 5012, [durren@lakemichigancollege.edu](mailto:durren@lakemichigancollege.edu)  
Charles Olszewski, (269) 927-8749 ext. 5044, [olszewski@lakemichigancollege.edu](mailto:olszewski@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

English 101, English Composition .....	3
English 103, Technical Writing .....	3
Political Science 101, National Government, 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 Health .....	3

### Program Requirements

Chemistry 111, General Chemistry I .....	4
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
Group III elective - choose from Art, Drama, Humanities, or Music .....	3

### 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 101

#### Semester 3

MATH 202  
CHEM 111  
ENGR 103  
CIS 251  
PHED 212 or 214

#### Semester 4

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

# Corrections, Probation, & Parole

**Associate in Applied Science Degree** Program Code 386

**Advisor:** Lisa Augustyniak, (269) 927-8171, [augustyn@lakemichigancollege.edu](mailto:augustyn@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, Technical 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.....	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

Group Ic elective, or Business Administration 100, Business Mathematics.....	3 or 4 or 5
Psychology 201, Introduction to Psychology.....	3
Office Information Systems 102, Keyboarding II, or any CIS/OIS.....	2
Sociology 101, Principles of Sociology.....	3
Sociology 201, Modern Social Problems.....	3
Communication 101, Introduction to Public Speaking.....	3
General Elective.....	3 or 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 the program 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 cannot be hired, in accordance with Public Act 140 of 1996. In addition, no individual can be hired who has pending felony or misdemeanor charges (includes deferred sentences), or who has a controlled substance violation in any jurisdiction, including military controlled substance-related discharges. In addition, an individual who has been convicted of any misdemeanor shall not be eligible for employment until one year after satisfactorily completing any sentence imposed, including probation. Also, an individual who has been convicted of domestic violence cannot be hired into any position which requires the possession or use of weapons or ammunition. Any individual hired into a position by the Department of Corrections must successfully pass a drug screen. If you have questions about these restrictions, please contact an Academic Advisor prior to starting the Corrections, Probation and Parole program.
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 at county, 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 Certificate 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 Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

## 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 (Registered)

**Certificate of Achievement - Dental Assisting** Program Code 231

**Associate Degree in Applied Science** Program Code 230

**Advisor:** Student Services Academic Advising appointments (269) 927-8128  
Julie Uribe, 269-927-1000 ext. 5074, juribe@lakemichigancollege.edu

## Program Prerequisites

See course description of specific course requirements. This program has special admission procedures and limited enrollment. Please see admission requirements for the Health Science program on page 16. 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 34 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, Technical 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

Biology 108, Basic Anatomy and Physiology, or Biology 205, Human Anatomy.....	4
Psychology 201, Introduction to Psychology.....	3
Communication 101, Introduction to Public Speaking.....	3
**Health 165, Standard First Aid and Personal Safety.....	2
**Health 166, CPR/AED.....	1
**Business Administration 150, Job Search Seminar.....	1
Psychology 204, Child Development and Personality, or Psychology 205, Interpersonal Relations, or Sociology 101, Principles of Sociology.....	3

## 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 166 DENT 167 DENT 168 **BUSA 150	DENT 169 DENT 170 +DENT 171 DENT 172 HEAL 165 HEAL 166	DENT 173 DENT 174 DENT 175 DENT 176

### Certificate (Part-time)

Semester 1	Semester 2	Semester 3
*DENT 165 DENT 166	DENT 167 DENT 168 **BUSA 150	DENT 169 DENT 170
Semester 4	Semester 5	Semester 6
+DENT 171 DENT 172 HEAL 165 HEAL 166	DENT 174 DENT 175	DENT 173 DENT 176

### Associate Degree Program (Full-time)

Semester 1	Semester 2	Semester 3
BIOL 108 or 205 *DENT 165 DENT 166 ENGL 101 PHED 200	**BUSA 150 DENT 167 DENT 168 ENGL 102 or 103 DENT 169	COMM 101 DENT 170 +DENT 171 POSC 101 or 102, or HIST 201 or 202
Semester 4	Semester 5	
DENT 172 DENT 174 DENT 175 HEAL 165 HEAL 166 PSYC 201	DENT 173 DENT 176 SOC1 Elective	

### Associate Degree (Part-time)

Semester 1	Semester 2	Semester 3
*DENT 165 BIOL 108 or 205	DENT 166 ENGL 101	DENT 167 ENGL 102 or 103
Semester 4	Semester 5	Semester 6
DENT 168 COMM 101	DENT 169 POSC 101 or 102, or HIST 201 or 202	DENT 170 BUSA 150**
Semester 7	Semester 8	Semester 9
DENT 171 PSYC 201	DENT 172 SOC1 elective	DENT 174 HEAL 166 HEAL 165
Semester 10	Semester 11	
DENT 173 DENT 175	DENT 176 PHED 200	

\* Transitional courses can be taken concurrently

\*\* Course only offered during Fall/Winter semester

+ These courses open 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.

# Dental Hygiene

1+2 with Kalamazoo Valley Community College

Associate in Applied Science (from KVCC) Program Code 232

Advisor: Julie Uribe, 269-927-1000 ext. 5074, [juribe@lakemichigancollege.edu](mailto:juribe@lakemichigancollege.edu)

## 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 Compass score of 80, Math Compass score of 21, asterisked (\*) in classes listed below, Chemistry – 1 year of high school chemistry. You must have prerequisites 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) all with a C or better

* English 101, English Composition .....	3
English 102, English Composition .....	3
* Biology 101, Biological Science (or equivalent) .....	4
* Biology 108, Basic Human Anatomy & Physiology .....	4
* Biology 210, Microbiology .....	4
* Chemistry 104, 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, or .....	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/academics/dental](http://kvcc.edu/academics/dental)

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

## 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 these recommended sequences.

### Program Prerequisites at LMC

Semester 1	Semester 2
*ENGL 101	ENGL 102
*BIOL 101	COMM 101
*CHEM 104	*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

(\*) Prerequisite classes must be taken before application is submitted.

# Dentistry (Pre)

## Associate in Science Degree - TRANSFER PROGRAM Program Code 081

**Advisor:** Dr. Susan Lentz, (269) 927-8624, [lentz@lakemichigancollege.edu](mailto: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 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, or English 103, Technical 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
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
Group II Social Science electives.....	6
Group III Humanities electives.....	9

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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 your 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.**

# Diagnostic Medical Sonography

*Associate in Applied Science – Diagnostic Medical Sonography* Program Code 225

**Advisor:** Elizabeth Zak, (269) 927-8870, bzak@lakemichigancollege.edu  
Student Services Academic Advising (269) 927-8128

## 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 16. Contact Student Services Academic Advising at ext. 8128 or the Health Science office at 269-927-8768 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 and Support Courses (required to begin program)

** Biology 205, Human Anatomy .....	4
** Physical Science 101, Physical Science: Chemistry and Physics .....	4
Health 166, CPR/AED .....	1
** Psychology 201, Introduction to Psychology .....	3
Reading 110, Medical Terminology .....	1
** Math 122, Intermediate Algebra .....	4
English 101, English Composition .....	3

## College Requirements

## Credit Hours

English 101, English Composition (completed as program prerequisite) .....	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, or Physical Education 214, Personal Health .....	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 I .....	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 .....	3
Diagnostic Medical Sonography 203, Sonographic Physics I .....	3
Diagnostic Medical Sonography 204, Clinical Experience B .....	2
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
Diagnostic Medical Sonography 240, Sonographic Registry Review .....	2

\*\* Support course needed for graduation

## 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 terms 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 Ultrasound 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 79-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	DMSO 101	DMSO 200
PHED 200	DMSO 102	DMSO 201
ENGL 102	DMSO 103	DMSO 202
POSC 101 or 102	DMSO 104	DMSO 203
or HIST 201 or 202		DMSO 204
Semester 4	Semester 5	Semester 6
DMSO 214	DMSO 224	DMSO 213
		DMSO 230
		DMSO 234
		DMSO 240

# Drafting & Design

**Certificate of Achievement - Drafting & Design** Program Code 322

**Associate in Industrial Technology Degree** Program Code 320

**Level I Certificate - Drafting & Design** Program Code 324

**Advisor:** Ken Flowers, (269) 927-4103, 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 102, English Composition, or English 103, Technical 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

* Mathematics 100, Applied Math .....	4
* Mathematics 110, Technical Math I, or Mathematics 130, Pre-Calculus Trig, or Mathematics 135, Pre-Calculus .....	3/4/5
* Physics 110, Technical Physics .....	4
Group III Humanities (not COMM 101) .....	3 or 4

### Major

*** Engineering 103, Beginning Engineering Drawing, or Engineering 113, Engineering Design .....	4
***/* Drafting & Design 102, Machine Drawing .....	3
Drafting & Design 201, Tool Design I .....	4
Drafting & Design 202, Tool Design II .....	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
Engineering 210, Advanced CAD Technology .....	3

### Electives (Select 4 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 Certificate program

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

\*\*\* Classes required for Level I Certificate program

## 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 61-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.

## 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.)

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit

[www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)



# Early Childhood Education

**Certificate of Achievement - Early Childhood Education** Program Code 271  
**Associate in Applied Science Degree** Program Code 270

**Advisor:** Dr. Delores Jackson, (269) 927-8762, jacksond@lakemichigancollege.edu  
Student Services Academic Advising (269) 927-8128

## Program Prerequisites

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

## Degree Requirements

## Credit Hours

### College Requirements

** English 101, English Composition .....	3
English 102, English Composition, or English 103, Technical 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 .....	1 or 3

### Support Courses

Group Ia or Ib elective .....	4 or 5
** Mathematics 122, Intermediate Algebra .....	4
** Psychology 201, Introduction to Psychology .....	3
** Psychology 203, Human Development .....	3
Group III Humanities .....	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**

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

## 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
ELCH 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 101 or 102  
Humanities – 6 cr.

# Education – Elementary

## Associate in Arts Degree - TRANSFER PROGRAM Program Code 037

**\*\* Important changes are occurring at the state level.**

**Please follow up with an Academic Advisor for details. (269) 927-8128**

### Sample Transfer Program

Courses vary at 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 a faculty or academic 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	<a href="http://www.andrews.edu/sed">www.andrews.edu/sed</a>
Central Michigan University	<a href="http://www.ehs.cmich.edu">www.ehs.cmich.edu</a>
Eastern Michigan University	<a href="http://www.emich.edu/coe">www.emich.edu/coe</a>
Ferris State University	<a href="http://www.ferris.edu">www.ferris.edu</a>
Grand Valley State University	<a href="http://www.gvsu.edu/soe">www.gvsu.edu/soe</a>
Indiana University South Bend	<a href="http://www.iusb.edu/~edud/">http://www.iusb.edu/~edud/</a>
Michigan State University	<a href="http://www.educ.msu.edu">www.educ.msu.edu</a>
Northern Michigan University	<a href="http://www.nmu.edu/education">www.nmu.edu/education</a>
University of Michigan	<a href="http://www.soe.umich.edu">www.soe.umich.edu</a>
Western Michigan University	<a href="http://www.wmich.edu">www.wmich.edu</a>
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

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.**

### College Requirements

### Credit Hours

English 101, English Composition.....	3
English 102, English Composition, or English 103, Technical 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 212, Health and Fitness, or Physical Education 214, Personal Health.....	3

### Support Courses

Group Ia elective.....	4
Group Ib elective.....	4
Group Ic elective.....	3, 4, or 5
Group II elective.....	6
Group III elective.....	9

### Electives

General Electives.....	24/25
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# Education – Elementary

## Associate in Applied Science Degree -

### Elementary Education WMU Southwest Program Code 276

WMU-SW Program Advisor: Roxie Swank, Academic Advisor roxann.m.swank@wmich.edu

**\*\* Important changes are occurring at the state and WMU level.**

**Please follow up with an Academic Advisor for details. (269) 927-8128**

## Program Prerequisites

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

## College Requirement

## Credit Hours

ENGL 101, English Composition .....	3
ENGL 102, English Composition .....	3
POSC 101, National Government .....	3
Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health .....	3

## Support Courses

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, Intro to the Arts .....	3

## Major

Elementary Education Program Requirements:

HIST 201, American History to 1865 .....	3
HIST 202, American History 1865 to Present .....	3
BIOL 170, Life Science for Elementary Teachers I .....	3
PHSC 180, Physical Science for Elementary Teachers I .....	3
PHSC 190, Earth Science for Elementary Teachers I .....	3
PHSC 280, Physical Science for Elementary Teachers II .....	3
PHSC 290, Earth Science for Elementary Teachers II .....	3
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

## Elementary Education Minor and Major Electives

### Science Minor

See an academic advisor for details

### Language Arts Minor

See an academic advisor for details

### Social Studies Major

See an academic advisor for details

### Science Major

See an academic advisor for details

## About the Program

Lake Michigan College and Western Michigan University - Southwest Campus (in Benton Harbor) have formed a partnership that allows students to earn an Associate in Applied Science degree 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. A financial aid consortium agreement is available for students who will be taking classes at LMC and WMU-SW concurrently; contact the LMC financial aid office at (269) 927-8112 for more information.

## Transfer Options

This program is highly specialized to meet transfer requirements at the WMU Southwest campus ONLY. It does not transfer to Elementary Education requirements at other universities. If you plan to pursue Elementary Education at an institution 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 from LMC for the AAS in Elementary Education.**

## 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 Certification
- 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, and should also contact the WMU-SW Elementary Education advisor to determine that this program can be completed in a timely manner.

# Education – Secondary

**Associate in Arts Degree - TRANSFER PROGRAM** Program Code 038

**Associate in Science Degree - TRANSFER PROGRAM**

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## 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 vary at 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 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 a faculty or Secondary academic 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/Crafts Electrical

## Associate in Industrial Technology Degree *Program Code 371*

**Advisors:** David Blumberg, (269) 926-2124, [dblumberg@lakemichigancollege.edu](mailto:dblumberg@lakemichigancollege.edu)  
Ken Flowers, (269) 927-4103, [flowers@lakemichigancollege.edu](mailto: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, Technical Writing, or ENGL 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

Mathematics 122, Intermediate Algebra .....	4
Mathematics 128, Pre-calculus Algebra, or Math 130 Pre-calculus Trigonometry .....	4/3
Physics 110, Technical Physics .....	4
Group III Humanities (Not included: COMM 101, or BUSA 220 .....	3 or 4

#### Major Courses

Energy Production Technology 100, Energy Industry Fundamentals Concepts.....	3
Energy Production Technology 116, Chem and RP fundamentals .....	3
Energy Production Technology 200, Power Plant Materials .....	3
* Energy Production Technology 205, Energy/Power Field Experience.....	2
Energy Production Technology 225, Reactor Theory, Safety and Design.....	3
Energy Production Technology 230, Thermo Fluid Science .....	3
Energy Production Technology 235, Power Plant Components.....	3
Energy Production Technology 240, Capstone and Case Studies .....	2
Trade Related Instruction 138, Industrial Safety .....	1

#### Crafts Electrical Concentration

Energy Production Technology 250, General Maintenance Systems & Components ....	3
Energy Production Technology 257, Electrical Maintenance Systems & Components ...	3
Industrial Maintenance 240, Predictive and Preventive Maintenance .....	3
Electronics 100, DC Electricity .....	4
Electronics 106, AC Electricity .....	3

\* All field experience must be scheduled through an advisor.

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

### 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.

### Associate's Degree

When you complete the 64 credit Energy Production Technology program, you may apply for an Associate in Industrial Technology degree.

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### Sample Course Sequence

An advisor will help you develop course program sequences.

# Energy Production Technology/Crafts Mechanical

## Associate in Industrial Technology Degree Program Code 371

**Advisors:** David Blumberg, (269) 926-2124, [dblumberg@lakemichigancollege.edu](mailto:dblumberg@lakemichigancollege.edu)  
Ken Flowers, (269) 927-4103, [flowers@lakemichigancollege.edu](mailto: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, Technical Writing, or ENGL 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

Mathematics 122, Intermediate Algebra .....	4
Mathematics 128, Pre-calculus Algebra, or Mathematics 130, Pre-calculus Trigonometry, or Mathematics 135, Pre-Calculus.....	3/4/5
Physics 110, Technical Physics .....	4
Chemistry 101, Introductory Chemistry, or Chemistry 104.....	4
Group III Humanities (Excluding: COMM 101) .....	3 or 4

#### Major Courses

Energy Production Technology 100, Energy Industry Fundamentals Concepts.....	3
Energy Production Technology 116, Chem and RP fundamentals .....	3
Energy Production Technology 200, Power Plant Materials .....	3
* Energy Production Technology 205, Energy/Power Field Experience.....	2
Energy Production Technology 225, Reactor Theory, Safety and Design.....	3
Energy Production Technology 230, Thermo Fluid Science .....	3
Energy Production Technology 235, Power Plant Components.....	3
Energy Production Technology 240, Capstone and Case Studies .....	2
Trade Related Instruction 138, Industrial Safety .....	1

#### Crafts Mechanical Concentration

Energy Production Technology 250, General Maintenance Systems & Components ....	3
Energy Production Technology 255, Mechanical Maintenance Systems & Components	3
Industrial Maintenance 240, Predictive and Preventive Maintenance .....	3

#### Electives (suggested but not required)

Electronics 100, DC Electricity .....	4
Electronics 106, AC Electricity .....	3
Energy Production Technology 120, Power Plant Drawings .....	3
Industrial Maintenance 109, Intro to Welding, or Welding 101, Fabrication I.....	2
Industrial Maintenance 204, Basic Hydraulics and Pneumatics.....	2
Industrial Maintenance 205, Hydraulics and Pneumatics Maintenance .....	2
Machine Tool Technology 110, Machine Tool I.....	3
Machine Tool Technology 129, Use of Machinery's Handbook .....	2
Trade Related Instruction 156, Industrial Rigging.....	2

\* All field experience must be scheduled through an advisor.

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

### 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.

### Associate's Degree

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### Sample Course Sequence

An advisor will help you develop course program sequences.

# Energy Production Technology/Crafts Instrumentation and Control

**Associate in Industrial Technology Degree** Program Code 371

**Advisors:** David Blumberg, (269) 926-2124, dblumberg@lakemichigancollege.edu  
Ken Flowers, (269) 927-4103, 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, Technical Writing, or ENGL 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

Mathematics 122, Intermediate Algebra .....	4
Mathematics 128, Pre-calculus Algebra, or Math 130 Pre-calculus Trigonometry .....	4/3
Physics 110, Technical Physics .....	4
Group III Humanities (Excluding: COMM 101 or BUSA 220) .....	3 or 4

### Major Courses

Energy Production Technology 100, Energy Industry Fundamentals Concepts.....	3
Energy Production Technology 116, Chem and RP fundamentals .....	3
Energy Production Technology 200, Power Plant Materials .....	3
* Energy Production Technology 205, Energy/Power Field Experience.....	2
Energy Production Technology 225, Reactor Theory, Safety and Design.....	3
Energy Production Technology 230, Thermo Fluid Science .....	3
Energy Production Technology 235, Power Plant Components.....	3
Energy Production Technology 240, Capstone and Case Studies .....	2
Trade Related Instruction 138, Industrial Safety .....	1

### Instrumentation Control Concentration

Energy Production Technology 250, General Maintenance Systems & Components .....	3
Energy Production Technology 259, Instrumentation and Control Maintenance Systems & Components .....	3
Industrial Maintenance 240, Predictive and Preventive Maintenance .....	3
Electronics 100, DC Electricity .....	4
Electronics 106, AC Electricity .....	3

\* All field experience must be scheduled through an advisor.

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

## 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.

## Associate's Degree

When you complete the 64 credit Energy Production Technology program, you may apply for an Associate in Industrial Technology degree.

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

## Sample Course Sequence

An advisor will help you develop course program sequences.

# Energy Production/Fossil Fuels

## Associate in Industrial Technology Degree Program Code 374

**Advisors:** David Blumberg, (269) 926-2124, [dblumberg@lakemichigancollege.edu](mailto:dblumberg@lakemichigancollege.edu)  
Ken Flowers, (269) 927-4103, [flowers@lakemichigancollege.edu](mailto: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 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 or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health.....	1 or 3
Outcomes Assessment Test must be completed prior to graduation	

#### Support courses

Mathematics 122, Intermediate Algebra .....	4
Mathematics 128, Pre-calculus Algebra, or Mathematics 130, Pre-calculus Trigonometry.....	4/3
Physics 110, Technical Physics .....	4
Chemistry 101, Introductory Chemistry, or Chemistry 104, Fundamentals of General Organic & Biochemistry .....	4
Business Administration 220, Organizational Behavior, or Group III Humanities (Excluding: COMM 101) .....	3 or 4

#### Major Courses

Energy Production Technology 100, Energy Industry Fundamentals Concepts.....	3
Energy Production Technology 116, Chem and RP fundamentals.....	3
Energy Production Technology 200, Power Plant Materials .....	3
* Energy Production Technology 205, Energy/Power Field Experience .....	2
Energy Production Technology 230, Thermo Fluid Science.....	3
Energy Production Technology 235, Power Plant Components.....	3
Energy Production Technology 240, Capstone and Case Studies .....	2
Trade Related Instruction 138, Industrial Safety .....	1

#### Concentration Major

Energy Production Technology 182, Boiler Theory, Safety, and Design.....	3
Energy Production Technology 184, Fossil Fuel Cycle.....	3
Energy Production Technology 270, Mechanical Operations.....	3
Energy Production Technology 274, Electrical and HVAC Operation.....	3
Energy Production Technology 278, Operation of Power Plant Components.....	3

#### Electives (suggested but are not required)

Energy Production Technology 111, Intro to Energy Production Distribution.....	3
Energy Production Technology 120, Power Plant Drawings .....	3
Energy Production Technology 210, Radiation Detection and Protection.....	3

\*All field experience must be scheduled through an advisor.

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

### 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 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 64/66 credit Energy Production Technology program, you may apply for an Associate in Industrial Technology degree.

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)



# Energy Production Technology/HPRP

## Associate in Industrial Technology Degree Program Code 372

**Advisors:** David Blumberg, (269) 926-2124, [dblumberg@lakemichigancollege.edu](mailto:dblumberg@lakemichigancollege.edu)  
Ken Flowers, (269) 927-4103, [flowers@lakemichigancollege.edu](mailto: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, Technical 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 or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health.....	1 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
Business Administration 220, Organizational Behavior, or Group III Humanities.....	3

#### Major Courses

Energy Production Technology 100, Energy Industry Fundamentals Concepts.....	3
Energy Production Technology 200, Power Plant Materials .....	3
*Energy Production Technology 205, Energy/Power Field Experience.....	2
Energy Production Technology 210, Radiation Detection and Protection .....	3
Energy Production Technology 225, Reactor Theory, Safety and Design.....	3
Energy Production Technology 230, Thermo Fluid Science .....	3
Energy Production Technology 235, Power Plant Components.....	3
Energy Production Technology 253, Radiation Protection Capstone .....	3
Trade Related Instruction 138, Industrial Safety .....	1

#### Health Physics Radiation Protection Concentration

Energy Production Technology 223, Radiation Monitoring .....	3
Energy Production Technology 233, Dosimetry .....	3
Energy Production Technology 243, Radiation Materials and Control .....	3
Energy Production Technology 249, Safety Response .....	3

#### Electives (suggested but are not required)

Energy Production Technology 111, Intro to Energy Production Distribution.....	3
Energy Production Technology 116, Chem and RP Fundamentals .....	3
Energy Production Technology 120, Power Plant Drawings .....	3

\*All field experience must be scheduled through an advisor.

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

### 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.

### Associate's Degree

When you complete the 65 credit Energy Production Technology program, you may apply for an Associate in Industrial Technology degree.

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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

**Advisors:** David Blumberg, (269) 926-2124, [dblumberg@lakemichigancollege.edu](mailto:dblumberg@lakemichigancollege.edu)  
Ken Flowers, (269) 927-4103, [flowers@lakemichigancollege.edu](mailto: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, Technical 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, or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health .....	1 or 3

#### Support courses

Mathematics 122, Intermediate Algebra .....	4
Mathematics 128, Pre-calculus Algebra, or Mathematics 130, Pre-Calculus Trig.....	4
Physics 110, Technical Physics .....	4
Chemistry 101, Introductory Chemistry, or Chemistry 105, Inorganic Chemistry .....	4
Group III Humanities or BUSA 220 .....	3

#### Major Courses

Energy Production Technology 100, Energy Industry Fundamentals Concepts .....	3
Energy Production Technology 116, Chem and RP Fundamentals .....	3
Energy Production Technology 200, Power Plant Materials .....	3
*Energy Production Technology 205, Energy/Power Field Experience.....	2
Energy Production Technology 225, Reactor Theory, Safety and Design.....	3
Energy Production Technology 230, Thermo Fluid Science .....	3
Energy Production Technology 235, Power Plant Components.....	3
Energy Production Technology 240, Capstone and Case Studies .....	2
Trade Related Instruction 138, Industrial Safety .....	1
Electronics 100, DC Electricity .....	4
Electronics 106, AC Electricity .....	3

#### Power Plant Operation Concentration

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 (suggested but are not required)

Energy Production Technology 120, Power Plant Drawings .....	3
Energy Production Technology 210, Radiation Detection and Protection .....	3
Energy Production Technology 111, Intro to Energy Production Distribution.....	3

\* All field experience must be scheduled through an advisor.

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

### 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 68 credit Energy Production Technology program, you may apply for an Associate in Industrial Technology degree.

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit

[www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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) 927-8963, [durren@lakemichigancollege.edu](mailto:durren@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 or English 103, Technical 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
Mathematics 151, Calculus I .....	5
Mathematics 201, Calculus II .....	5
Mathematics 202, Calculus III .....	5
Mathematics 252, Differential Equations .....	4
Physics 201, Engineering Physics I.....	5
Physics 202, Engineering Physics II .....	5
Group II Social Science electives.....	6
Group III Humanities electives .....	9
General Electives.....	8

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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.**

# English

## Associate in Arts Degree - TRANSFER PROGRAM Program Code 041

**Advisor:** Nick Brittin, (269) 927-8759, [brittin@lakemichigancollege.edu](mailto:brittin@lakemichigancollege.edu)  
Joseph Eklund, (269) 927-8195, [eklund@lakemichigancollege.edu](mailto:eklund@lakemichigancollege.edu)  
Charlie Jordan, (269) 927-8966, [jordan@lakemichigancollege.edu](mailto:jordan@lakemichigancollege.edu)  
Sean Newmiller, (269) 927-8741, [snewmiller@lakemichigancollege.edu](mailto:snewmiller@lakemichigancollege.edu)  
Dr. Sarah Smith, (269) 927-8872, [ssmith@lakemichigancollege.edu](mailto:ssmith@lakemichigancollege.edu)  
Dr. Janice Zervas, (269) 927-8871, [zerfas@lakemichigancollege.edu](mailto: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, or English 103, Technical 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 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
Group Ia elective.....	4
Group Ib elective.....	4 or 5
Group Ic elective .....	3 or 4 or 5
General Elective .....	24 or 25

### English Electives

English 201, Gender Studies .....	3
English 203, Masterpieces of English Literature I.....	3
English 204, Masterpieces of English Literature II .....	3
English 205, An Introduction to Shakespeare .....	3
English 206, Modern Drama.....	3
English 208, Literary Interpretation .....	3
English 209, American Novel.....	3
English 210, American Literature to 1865.....	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 Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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.

# Environmental Science

**Associate in Science Degree - TRANSFER PROGRAM** Program Code 066

Advisor: TBA

## 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, or English 103, Technical 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
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
Physics 101, General Physics I .....	5
Physics 102, General Physics II.....	5
Group II Social Science electives.....	6
Group III Humanities electives .....	9
General Elective .....	1 or 2

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

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

## 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.

# Foreign Language

## Associate in Arts Degree - TRANSFER PROGRAM Program Code 042

**Advisor:** Dr. Denise Scameheorn, (269) 927-8775, [scameheo@lakemichigancollege.edu](mailto:scameheo@lakemichigancollege.edu)

### 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

#### Credit Hours

English 101, English Composition.....	3
English 102, English Composition, or English 103, Technical 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
Group Ia elective.....	4
Group Ib elective .....	4 or 5
Group Ic elective .....	3 or 4 or 5
Group II Social Science electives.....	6
Group III Humanities electives.....	9
Foreign Language classes + General electives.....	24/25

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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 Self-Instructional Language program format.

# Forensics (Pre)

## Associate in Science Degree – Transfer Program Program Code 057

**Advisor:** Dr. Susan Lentz, (269) 927-8624, [lentz@lakemichigancollege.edu](mailto: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, or English 103, Technical 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 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
Group II Social Science electives.....	6
Group III Humanities elective.....	9

\*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 pre-forensics 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).

# General Education Certificate

Certificate of Achievement – TRANSFER PROGRAM *Program Code 220*

Advisor: TBD

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Degree Requirements	Credit Hours
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**College Requirements**

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

**Support Courses**

Group 1a, 1b or 1c Electives* .....	8 or 9
At least one course must be a lab course. Courses must be taken in more than one academic discipline.	
Group II Electives*.....	8 or 9
Courses must be taken in more than one academic discipline.	
Group III Electives* .....	8 or 9
Courses must be taken in more than one academic discipline.	

\*Please refer to page 27 in the front of the catalog for a complete listing of all Group courses.

Completing the above courses qualifies for the MACRAO (Michigan Association of Collegiate Registrars and Admission Officers) statement on a student’s transcript. For more information go to [www.macrao.org](http://www.macrao.org)



# General Studies

## Associate in General Studies - TRANSFER PROGRAM Program Code 005

**Advisor:** Student Services Academic Advising Appointments, (269) 927-8128

### 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, Technical 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 .....	3
History 201, American History to 1865, or History 202, American History 1865 to Present .....	3

### Support Courses

Science Elective (Group I a or b).....	4 or 5
Mathematics Elective (Group Ic).....	3 or 4 or 5
Humanities, Group III Elective.....	3 or 4

### Electives

College Life Studies 100, Freshman Seminar (recommended for first semester) .....	1
General Electives.....	34-41

### Major Requirements

Computer Information Systems 100, Intro to Computer Literacy, or Computer Information Systems 102, Basic Computer Literacy.....	3/1
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\*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.

# General Technology

**Associate in Industrial Technology Degree** Program Code 340

**Advisor:** Ken Flowers, (269) 927-4103, 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 102, English Composition, or English 103, Technical 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

Mathematics 100, Applied Mathematics .....	4
Mathematics 110, Technical Mathematics I .....	4
Physics 110, Technical Physics .....	4
Business Administration 103, Introduction to Business .....	3
Group III Humanities (excluding COMM 101).....	3

### Major Courses

At least 33 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.

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

## 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, you may apply for a Associate in Industrial Technology.

## 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.

# Geography

## Associate in Arts Degree - TRANSFER PROGRAM Program Code 023

**Advisor:** Dr. Chris Paine, (269) 927-8607, [paine@lakemichigancollege.edu](mailto:paine@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 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, or English 103 Technical 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
Group Ia elective.....	4
Group Ib elective.....	4 or 5
Group Ic elective .....	3 or 4 or 5
Group II Social Science electives.....	6
Group III Humanities electives.....	9
General Electives.....	24/25

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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.**

# Geology

## Associate in Science Degree - TRANSFER PROGRAM Program Code 069

**Advisor:** Dr. Cole Lovett, (269) 927-8744, [lovett@lakemichigancollege.edu](mailto:lovett@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, or English 103, Technical 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
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
Group II Social Science electives.....	6
Group III Humanities electives.....	9
General Electives .....	9/10

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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.**

# Graphic Design

**Associate in Arts Degree** Program Code 395

**Advisor:** Brandon Pierce, (269) 927-8767, pierce@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, or English 103, Technical 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
Group Ia Elective.....	4
Group Ib Elective.....	4 or 5
Group Ic Elective.....	3, 4, or 5
Group II Electives.....	6
Group III Electives.....	9
General Electives (includes GRDN courses).....	24 or 25

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

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer).

## About the Area of Study

Graphic design is the intermingling of traditional art and design elements with leading edge computer technology. The Graphic Design program will prepare you for local employers and to serve as a freelance graphic designer. Graphic designers often work for marketing, public relations, and advertising firms; commercial printing; newspapers; and other publishing settings.

Macintosh-based instruction utilizing industry-standard image editing, page layout, and vector-based illustration software is featured in the program.

## Program Sequence

Students are strongly encouraged to take the following studio classes in their first year:

ART 109 Basic Design 1, 2D (fall)  
ART 110 Basic Design 2, 3D (spring)  
ART 122 Drawing 1 (fall, ideally)  
ART 123 Drawing 2 (spring, ideally)  
GDRN 101 Digital Studio 1 (fall or spring)

# Graphic Design

**Level 1 Certificate** Program Code 394

**Advisor:** Brandon Pierce, (269) 927-8767, pierce@lakemichigancollege.edu

## Program Prerequisites

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

## Degree Requirements

### Support courses

Art 109, Basic Design I 2D.....	3
Art 122, Drawing I.....	3
Art 123, Drawing II.....	3

### Major

Graphic Design 101, Digital Studio I.....	3
Graphic Design 130, Photography I.....	3
Graphic Design 131, Photography II.....	3
Graphic Design 200, Principles of Typography.....	3
Graphic Design 220, Digital Studio II.....	3

## Credit Hours

## About the Program

Graphic design is the intermingling of traditional art and design elements with leading edge computer technology. The Graphic Design program will prepare you for local employers and to serve as a freelance graphic designer. Graphic designers often work for marketing, public relations, and advertising firms; commercial printing; newspapers; and other publishing settings.

Macintosh-based instruction utilizing industry-standard image editing, page layout, and vector-based illustration software is featured in the program.

## Certificate Options

Upon completion of the 24-credit program you may apply for a Level 1 Certificate. The certificate coursework can be applied to the Associate in Arts degree transfer program.

# Health

## Associate in Science Degree - TRANSFER PROGRAM Program Code 053

**Advisor:** Jill Claeys, (269) 927-8964, [claeys@lakemichigancollege.edu](mailto:claeys@lakemichigancollege.edu)  
Daniel Meyer, (269) 927-8745, [meyer@lakemichigancollege.edu](mailto: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 Hours
English 101, English Composition.....	3
English 102, English Composition, or English 103, Technical Writing .....	3
Physical Education 214, Personal Health, or PHED 200, or PHED 212 .....	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
Biology 205, Human Anatomy .....	4
Psychology 201, Introduction to Psychology .....	3
Sociology 101, Principles of Sociology.....	3
Communication 101, Into to Public Speaking .....	3
Physical Education 145, Total Fitness I .....	1
Physical Education or General Electives.....	11 or 12
Group Ia and Ib electives .....	15 or 16
Group Ic elective .....	3, 4 or 5
Group III electives .....	6

### 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 first-aid 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.**

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

# History

## Associate in Arts Degree - TRANSFER PROGRAM Program Code 021

**Advisor:** Dr. Chris Paine, (269) 927-8607, [paine@lakemichigancollege.edu](mailto:paine@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 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, or English 103, Technical 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
Sociology 101, Principles of Sociology.....	3
Group 1a elective.....	4
Group 1b elective.....	4
Group 1c elective .....	3, 4 or 5
Group II Social Science electives.....	3
Group III Humanities electives.....	9
History or General Electives .....	24 or 25

#### 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 Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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 faculty advisor for specific guidance.

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



# Honors Curriculum – Transfer Program

**Advisors:** Dr. Gary Roberts, (269) 927-8771, roberts@lakemichigancollege.edu;

## **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

### **Spring 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

### **Spring Semester, Year II**

HONR 258 Honors Literary Interpretation .....	3
HONR 241 Honors Colloquium.....	1
Elective.....	3
Elective.....	3
Elective.....	3-4
Elective.....	3
TOTAL:	16-17

## **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.

# Hospitality Management

**Certificate of Achievement - Hospitality Management** Program Code 315

**Associate in Applied Science Degree** Program Code 316

**Advisor:** Chris Woodruff, CHE, (269) 927-8868, woodruff@lakemichigancollege.edu

## 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.

## Degree Requirements

## Credit Hours

### College Requirements

English 101, English Composition.....	3
English 102, English Composition, or English 103, Technical 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, or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health.....	1 or 3

### Support Courses

Computer Information Systems 100, Introduction to Computer Literacy, or Computer Information Systems 108, Computer Operations - Micro.....	3
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 I .....	3/4
**Communication 101, Intro to Public Speaking .....	3

### Major

**Hospitality Management 110, Sanitation .....	1
**Hospitality Management 111, Responsible Beverage Service.....	1
**Hospitality Management 115, Safety & Legal Overview.....	3
**Hospitality Management 117, Introduction to Meetings and Events .....	3
**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

## 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, event planning, casinos, 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 leadership skills are needed.

## Certificate & Associate's Degree

Upon completion of the 41-credit program, you may apply for a Certificate of Achievement.

Upon completion of the 64-credit program, you may apply for an Associate in Applied Science degree. Certificate requirements may be applied to the degree program.

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

## Sample Course Sequence

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

### Certificate Program

Semester 1	Semester 2
COMM 101	HOSP 111
HOSP 110	HOSP 117
HOSP 115	HOSP 153
HOSP 150	HOSP 200
HOSP 251	HOSP 201
HOSP 252	HOSP 203
HOSP 255	HOSP 250
	HOSP 254

### Associate's Degree Program

Semester 1	Semester 2		Semester 3
ENGL 101	ENGL 102 or	PSYC 201 or	CHEM 101 or
HOSP 150	ENGL 103	SOC 101	BIOL 101
HOSP 110	HOSP 111	CIS 100 or	HOSP 115
HOSP 115	HOSP 117	CIS 108	HOSP 251
COMM 101	HOSP 250		HOSP 252
			HOSP 255

### 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 201	

# Hospitality Management Casino Management - Four Winds

**Certificate of Achievement - Hospitality Management Degree** Program Code 313

**Associate in Applied Science Degree** Program Code 314

**Advisor:** Chris Woodruff, CHE, (269) 927-8868, woodruff@lakemichigancollege.edu

## 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.

## Degree Requirements

## Credit Hours

### College Requirements

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 200, Healthful Living, or PHED 212, or PHED 214.....	1/3
Outcomes Assessment Test must be completed prior to graduation.	

### Support Courses

Biology 101, Biological Science, or Chemistry 101, Introductory Chemistry 1 .....	4
Business 100, Business Math, or Mathematics 122, Intermediate Algebra .....	3/4
*Business 101, Business Accounting, or Business 201, Principles of Accounting 1.....	3/4
*Business 103, Introduction to Business .....	3
Business 203, Principles of Economics - Macro .....	3
*Business 211, Principles of Management.....	3
*Business 220, Organizational Behavior .....	3
*Communications 101, Introduction to Public Speaking.....	3
*Computer Information Systems 108, Computer Operations .....	3
Psychology 201, Introduction to Psychology, or Sociology 101, Principles of Sociology.....	3

### Major Courses

*Hospitality Management 201, Restaurant Operations .....	3
*Hospitality Management 202, Casino Operations .....	3
Hospitality Management 251, Marketing of Hospitality Services .....	3
Hospitality Management 252, Supervisory Skills and Human Relations.....	3
*Hospitality Management 253, Tourism Operations .....	3
Hospitality Management 254, Hospitality Cost Control Systems.....	3
*Hospitality Management 255, Hotel Management and Operations .....	3

\* Classes Required for Certificate Program

## 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, event planning, casinos, 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 33-35-credit program, you may apply for a Certificate of Achievement. Upon completion of the 64-credit program, you may apply for an Associate in Applied Science degree. Certificate requirements may be applied to the degree program.

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

# Hospitality and Tourism Management

**Associate in Applied Science Degree - TRANSFER PROGRAM** Program Code 317

**Advisor:** Chris Woodruff, CHE, (269) 927-8868, woodruff@lakemichigancollege.edu

## Program Prerequisites

Proficiency in reading, English, and mathematics on the assessment or successfully complete recommended classes.

## Degree Requirements

## Credit Hours

### College Requirements

English 101, English Composition .....	3
English 102, English Composition, or English 103, Technical 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, or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health .....	1 or 3

### 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 110, Sanitation .....	1
Hospitality Management 111, Responsible Beverage Service .....	1
Hospitality Management 115, Safety & Legal Overview .....	3
Hospitality Management 117, Introduction to Meetings and Events .....	3
Hospitality Management 150, Intro 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.

## 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 four-year 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 Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

## 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 ENGL 103
HOSP 150	COMM 101
COMM 101	HOSP 111
HOSP 110	HOSP 117
HOSP 115	HOSP 201
HOSP 252	PSYC 201
	SOC 101
	CIS 100 or CIS 108
Semester 3	Semester 4
CHEM 101 or BIO 101	POSC 101 or POSC 102 or
PHED 200 or PHED 212 or PHED 214	HIST 201 or HIST 202
HOSP 153	BUSA 201 or BUSA 101
HOSP 251	HOSP 200
HOSP 255	HOSP 250
	HOSP 253
	HOSP 254

# Humanities

## Associate in Arts Degree - TRANSFER PROGRAM Program Code 024

**Advisor:** Dr. Denise Scameheo, (269) 927-8775 [scameheo@lakemichigancollege.edu](mailto:scameheo@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 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.

Courses	Credit Hours
English 101, English Composition.....	3
English 102, English Composition, or English 103, Technical 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 102, State Governments, or Political Science 101, National Government History 201, American History to 1865, or History 202, American History 1865 to Present.....	3
Group Ia elective.....	4
Group Ib elective.....	4 or 5
Group Ic elective.....	3 or 4 or 5
Group II Social Science electives.....	6
Group III Humanities electives.....	9
General Electives .....	24/25

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### About the Area of Study

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 broad-based 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

## Associate in Industrial Technology Degree Program Code 360

**Advisor:** Ken Flowers, (269) 927-4103, flowers@lakemichigancollege.edu  
Kevin Kreitner (269) 927-8100, ext. 3033, kkreitner@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

#### 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.....	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

Mathematics 100, Applied Mathematics .....	4
Mathematics 110, Technical Mathematics, or Mathematics 130, Pre-Calculus Trigonometry, or Mathematics 135, Pre-Calculus .....	4/3/5
Physics 110, Technical Physics.....	4
Group III Humanities (excluding COMM 101).....	3

### Major

Industrial Maintenance Technology 109, Intro to Welding, or Welding 101, Intro to Fabrication .....	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, or Engineering 113, Engineering Design .....	4
Machine Tool Technology 110, Machine Tool I.....	3
Machine Tool Technology 120, Machine Tool II.....	3
Machine Tool Technology 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
Welding 102, SMAW Welding .....	2
Welding 103, GMAW Welding.....	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.

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

### About the Area of Study

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.

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

# Industrial Maintenance Technology

**Level I Certificate - Fluid Power** Program Code 362

**Level I Certificate - Industrial Computing** Program Code 364

**Advisor:** Ken Flowers, (269) 927-4103, flowers@lakemichigancollege.edu  
Kevin Kreitner (269) 927-8100, ext. 3033, kkreitner@lakemichigancollege.edu

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## 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 Fluid Power Certificate

Industrial Maintenance 204, Basic Hydraulics and Pneumatics .....	2
Industrial Maintenance 205, Hydraulics and Pneumatics Maintenance .....	2
Industrial Maintenance 206, Hydraulics and Pneumatics Circuitry .....	2
Machine Tool Technology 110, Machine Tool I .....	3
<b>Total Credit Hours</b> .....	<b>9</b>

### Level I Industrial Computing Certificate

Computer Information Systems 108, Computer Operations .....	3
Engineering 103, Beginning Engineering Drawing, or Engineering 113, Engineering Design .....	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
<b>Total Credit Hours</b> .....	<b>16</b>

## 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 previous page for Industrial Maintenance Technology associate's degree.

# Law (Pre)

## Associate in Arts Degree - TRANSFER PROGRAM Program Code 083

**Advisor:** Dr. Gary Roberts, (269) 927-8771, 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

### Credit Hours

English 101, English Composition.....	3
English 102, English Composition, or English 103 Technical 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
Group Ia elective.....	4
Group Ib elective.....	4 or 5
Group Ic elective .....	3 or 4 or 5
Group II Social Science electives.....	6
Group III Humanities electives.....	9
General Electives.....	24/25

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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** Program Code 384

From KVCC

**Associate in Applied Science Degree** Program Code 385

From LMC after completion of KVCC Police Academy or State Police Academy and LMC

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

## Contact KVCC

See KVCC program information at [www.kvcc.edu](http://www.kvcc.edu)

## Associate in Applied Science Degree from LMC:

### Lake Michigan College Courses

### Credit Hours

#### College Requirements

English 101, English Composition.....	3
English 103, Technical Writing .....	3
Political Science 102, State Governments .....	3
* Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health .....	1 or 3

#### Support Courses

Group I, II, or III electives (from at least two groups) .....	11
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#### Major

Law Enforcement 140, Introduction to Criminal Justice .....	3
Law Enforcement 142, Police Organization & Administration .....	3
Law Enforcement 144, Criminology .....	3
Law Enforcement 250, Juvenile Delinquency & Behavior.....	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 Patrol 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

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

## Employment

Employment in Law Enforcement is subject to the employment standards for each state. For Michigan Law enforcement Standards please visit: <http://www.michigan.gov/mcoles/0,4607,7-299--150169--,00.html>. If you have questions about these standards, please contact an Academic Advisor prior to starting the Law Enforcement program.

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

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

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### 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's 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's 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.

### Associate's Degree Completion at Lake Michigan College

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

### 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 at KVCC, 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.

# Legal Office Systems

**Certificate of Achievement - Legal Office Assistant** Program Code 143

**Associate in Applied Business Degree** Program Code 145

**Advisor:** Christine Davis, (269) 927-8877, cdavis@lakemichigancollege.edu

## Program Prerequisites

Proficiency in reading, English, and mathematics on the assessment or successful completion of 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, Technical 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

Communication 101, Introduction to Public Speaking .....	3
Group I, II, or III Electives (with COMM 101 to total 9 credits in at least two groups) .....	6

### Major Requirements

Business Administration 100, Business Mathematics .....	3
Business Administration 103, Introduction to Business .....	3
Business Administration 205, Business Law .....	3
*Business Administration 210, Business Correspondence .....	3
*Law Enforcement 140, Introduction to Criminal Justice .....	3
*Office Information Systems 104, Proofreading and Editing .....	2
*Office Information Systems 114, Computer Applications 1 .....	3
*Office Information Systems 125, Records Management .....	3
*Office Information Systems 201, Computer Applications 2 .....	3
*Office Information Systems 205, Integrated Business Projects .....	4
*Office Information Systems 211, Office Procedures (cert. only) .....	3
*Office Information Systems 219, Legal Office Procedures .....	3
Office Information Systems 261, Office Co-op I .....	3

### Program Electives (Select 6 credit hours for degree, 3 hours for certificate)

Business Administration 101, Business Accounting I .....	3
Business Administration 115, Principles of Customer Service .....	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, Operating Systems .....	3
Computer Information Systems 111, Database Concepts .....	3
Computer Information Systems 295, Project Management .....	3
Office Information Systems 262, Office Co-op II .....	3

\*Required for certificate program

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

NOTE: You should notify your program 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 software, keyboarding, and other general business procedures; business law will also be covered in the degree program. As a legal office assistant you may perform a variety of administrative activities for attorneys and legal organizations such as Friend of the Court.

## Certificate & Degree Options

By completing the 64-credit program in Legal Office Systems, you may apply for an Associate in Applied Business degree.

By completing the 33-credit program for Legal Office Assistant (courses denoted with single asterisk (\*)), you may apply for a Certificate of Achievement.

**By completing the 64-credit program in Legal Office Systems, you may apply for an Associate in Applied Business degree.**

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer).

## 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 205
OIS 104	OIS 219
	Program Elective

### Associate's Degree Program

Semester 1	Semester 2
ENGL 101	ENGL 102 or
OIS 114	ENGL 103
BUSA 210	OIS 201
OIS 211	COMM 101
OIS 104	PHED 200
	Program Elective

Semester 3	Semester 4
BUSA 205	OIS 204
OIS 125	OIS 205
POSC 101 or	OIS 219
POSC 102 or	OIS 261
HIST 201 or	Program Elective
HIST 202	
General Elective	

# Liberal Arts

## Associate in Arts Degree - TRANSFER PROGRAM Program Code 031

**Advisor:** Dr. Denise Scameheorn, (269) 927-8775, [scameheo@lakemichigancollege.edu](mailto:scameheo@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 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, or	
English 103, Technical 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
General Electives.....	24/25
Group Ia elective.....	4
Group Ib elective.....	4 or 5
Group Ic elective .....	3 or 4 or 5
Group II Social Science electives.....	6
Group III Humanities electives.....	9

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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.**

# Line Worker

## Certificate of Achievement Program Code 368

**Advisor:** David Blumberg, (269) 926-2124, [dblumberg@lakemichigancollege.edu](mailto:dblumberg@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

#### Major

Trade Related 138, Industrial Safety.....	1
Energy Production 111, Energy Generation and Distribution .....	3
Trade Related 144, Blueprint Reading & Sketching.....	4
Electricity 100, DC Electricity.....	4
Electricity 106, AC Electricity.....	3
Electricity 151, Transformers and Motors Control.....	4
Trade Related 156, Industrial Rigging .....	2
Energy Production 185, Line Worker Orientation.....	1
Energy Production 186, Line Worker .....	12
Energy Production 188, Line Worker Field Experience.....	2

### About the Area of Study

The primary goal of the Line Worker certificate program is to prepare the student for employment as an entry-level utility worker.

This two-semester program has been developed to meet the utility industry's need for trained, entry-level employees. The College's certificate program is designed to prepare individuals to install and repair business and residential electrical, telephone, and telegraph transmission systems. Students complete 36 credit hours of practical theory and hands-on training using actual equipment and materials in classroom, laboratory, and field settings.

### Certificate & Degree Options

When you complete the 36 credit Line Worker certificate program, you may continue on an Associate in Industrial Technology degree in General Technology. See the General Technology degree page for details.

### Program Prerequisites

An advisor will help you develop a program plan.

# Logistics

## Certificate of Achievement *Program Code 379*

**Advisor:** Jim Ellis, (269) 695-2988, ellisj@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

#### Major

Logistics 101, Intro to Logistics.....	3
Logistics 102, Warehouse and Distribution .....	3
Logistics 103, Traffic and Transportation .....	3
Logistics 104, Rules and Regulations.....	3
Logistics 105, Logistics Technology.....	3
Computer Information Systems 100, Intro to Computer Literacy.....	3
Business 103, Intro to Business .....	3
Business 115, Principles of Customer Service.....	3
Business 220, Organizational Behavior .....	3
Trade Related 138, Industrial Safety.....	1
Logistics 205 Logistics Field Experience.....	2

### About the Area of Study

The primary goal of the Logistics certificate program is to prepare the student for entry-level employment in the logistics field.

This two-semester program has been developed to meet the logistic industry's need for trained, entry-level employees. The College's certificate program is designed to prepare individuals to understand the management of the flow of resources, not only goods, between the point of origin and the point of destination in order to meet the requirements of customers or corporations. Logistics involves the integration of information, transportation, inventory, warehousing, material handling, packaging, and often security.

### Certificate & Degree Options

When you complete the 30 credit Logistics certificate program, you may continue on an Associate in Industrial Technology degree in General Technology. See the General Technology degree page for details.

### Program Prerequisites

An advisor will help you develop a program plan.

# Machine Tool Technology

**Certificate of Achievement - Machine Tool Technology** Program Code 346

**Associate in Industrial Technology Degree** Program Code 345

**Advisor:** Ken Flowers, (269) 927-4103, 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, Technical 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 .....	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

** Mathematics 100, Applied Mathematics .....	4
** Mathematics 110, Technical Mathematics, or Mathematics 130, Pre-Calculus Trig., or Mathematics 135, Pre-Calculus .....	3/4/5
Physics 110, Technical Physics .....	4
Group III Humanities (excluding COMM 101) .....	3

### 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 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, or Engineering 113, Engineering Design .....	4
Trade Related Instruction 144, Blueprint Reading & Sketching .....	4
** Industrial Maintenance Technology 109, Intro to Welding, or Welding 101 Intro to Fabrication .....	2
** Manufacturing 111, Manufacturing Processes I .....	3
** Trade Related Instruction 134, Metallurgy and Heat Treating .....	3
Computer Information Systems 102, Basic Computer Literacy .....	1
Intro to Welding 110 .....	3

### Electives (electives are suggested, but not required)

*** Trade Related/Apprentice 107, Applied Geometry/Trigonometry .....	4
Machine Tool Technology 231, CMM Fundamentals .....	2
Engineering 210, Advanced CAD Technology .....	3
Welding 102, SMAW Welding .....	2
Welding 103, GMAW Welding .....	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.

## 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 from 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 of Achievement. 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 63-credit Machine Tool Technology program, you may apply for an Associate in Industrial Technology degree.

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

# Machine Tool Technology - Level I Certificates

**Machine Tool Certificate** – Program Code 347

**Numerical Control Specialty Certificate** – Program Code 348

**Technology Certificate** – Program Code 344

**Manufacturing Production Certificate** – Program Code 366

**Advisor:** Ken Flowers, (269) 927-4103, flowers@lakemichigancollege.edu

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## 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 Machine Tool - Level I Certificate

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Machine Tool Technology 110, Machine Tool I.....	3
Machine Tool Technology 120, Machine Tool II.....	3
Machine Tool Technology 140, Intro to Numerical Control (NC) Computer Numerical Control (CNC).....	2
Trade Related Instruction 134, Metallurgy and Heat Treatment .....	3
Trade Related Instruction 144, Blueprint Reading and Sketching .....	4
<b>Total Credit Hours</b> .....	<b>15</b>

### Level I Numerical Control Specialty - Level I Certificate

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Machine Tool Technology 110, Machine Tool I.....	3
Machine Tool Technology 140, Introduction to CNC.....	2
Machine Tool Technology 150, Introduction to CAM.....	2
Machine Tool Technology 241, CNC Programming I.....	2
Machine Tool Technology 242, CNC Programming II .....	2
Trade Related Instruction 144, Blueprint Reading and Sketching.....	4
<b>Total Credit Hours</b> .....	<b>15</b>

### Level I Technology - Level I Certificate

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Engineering 103, Technical Drawing Fundamentals, or Engineering 113, Engineering Design .....	4
Machine Tool Technology 110, Machine Tool I.....	3
Manufacturing 111, Manufacturing Processes I.....	3
Mathematics 100, Applied Math.....	4
Trade Related Instruction 138, Industrial Safety.....	1
Trade Related Instruction 144, Blueprint Reading and Sketching .....	4
<b>Total Credit Hours</b> .....	<b>19</b>

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

### Level I Manufacturing Production - Level I Certificate

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Machine Tool Technology 110, Machine Tool I.....	3
Manufacturing 111, Manufacturing Processes I .....	3
Trade Related Instruction 143, Introduction to Moldmaking .....	3
Manufacturing 120, Fundamentals of Programmable Controls.....	2
Trade Related Instruction 138, Industrial Safety .....	1
Trade Related Instruction 144, Blueprint Reading and Sketching.....	4

## 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).



# Magnetic Resonance Imaging (MRI)

**Certificate of Achievement - Magnetic Resonance Imaging** Program Code 242

**Associate in Applied Science – Magnetic Resonance Imaging** Program Code 240

**Advisors:** Kerry Mohnney, (269) 927-8748, mohnney@lakemichigancollege.edu  
Student Services Academic Advising (269) 927-8128

## 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 16. Contact Student Services Academic Advising at ext. 8128 for an academic advising appointment or the Health Science office at ext. 8768 for complete details. An advisor will help you determine prerequisites that are required and designed to prepare you for training in the program.

## Prerequisite and Support Courses (required to begin program)

** Biology 205, Human Anatomy .....	4
** English 101, English Composition .....	3
** Physical Science 101, Physical Science: Chemistry and Physics .....	4
** Health 166, CPR/AED .....	1
** Psychology 201, Introduction to Psychology .....	3
** Reading 110, Medical Terminology .....	1
** Math 122, Intermediate Algebra .....	4

## College Requirements

### Credit Hours

English 101, English Composition I (completed as program prerequisite) .....	3
English 102, English Composition II .....	3
Political Science 101, National Government, or Political Science 102, State Governments, or .....	3
History 201, American History to 1865, or History 202, American History 1865 to Present	
Physical Education 200, Healthful Living, or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health .....	1/3

## Major Requirements

* Magnetic Resonance Imaging 100, Preclinical Preparation .....	3
* Magnetic Resonance Imaging 101, Professional Prospectus .....	1
* Magnetic Resonance Imaging 102, MRI Procedures and Pathophysiology I ....	3
* Magnetic Resonance Imaging 103, MRI Physics I .....	3
* Magnetic Resonance Imaging 105, Clinical Experience I .....	3
* Magnetic Resonance Imaging 106, MRI Procedures and Pathophysiology II ...	3
* Magnetic Resonance Imaging 107, MRI Physics II .....	3
* Magnetic Resonance Imaging 108, Image Analysis .....	3
* Magnetic Resonance Imaging 109, Clinical Experience II .....	3
* Magnetic Resonance Imaging 111, Clinical Experience III .....	3
* Magnetic Resonance Imaging 113, Registry Review (Certificate Program Elective) ..	3
* Magnetic Resonance Imaging 114, Applied Sectional Anatomy .....	3
* Magnetic Resonance Imaging 115, Computer Applications in Medical Imaging ...	3

- \* Courses required for Certificate Program
- \*\* Support courses required for graduation

## 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. 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

Medical Imaging professionals completing the 34-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 64-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 108
MRIT 101	MRIT 103	MRIT 107	MRIT 111
	MRIT 114	MRIT 115	
	MRIT 105	MRIT 109	

### Associate Degree Program

Semester 1	Semester 2
ENGL 101	ENGL 102
PHED 200	MRIT 102
MRIT 100	MRIT 103
MRIT 101	MRIT 114
	MRIT 105

Semester 3	Semester 4
MRIT 106	MRIT 108
MRIT 107	MRIT 111
MRIT 115	MRIT 113
MRIT 109	POSC 101 or 102 or HIST 201 or 202

# Management and Marketing

**Associate in Applied Business Degree** Program Code 151

**Advisors:** Greg Iwaniuk, (269) 927-1000 ext. 2949, iwaniuk@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 102, English Composition, or English 103, Technical 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

Psychology 201, Introduction to Psychology .....	3
Communication 101, Introduction to Public Speaking.....	3
Lab Science Elective Group 1a or 1b .....	4 or 5
Group 1c elective .....	3 or 4 or 5
Group III elective .....	3/4

### Major Requirements

Business Administration 101, Business Accounting I, or Business Administration 201, Principles of Accounting I .....	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 100, Business Mathematics .....	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
Business Administration 220, Organizational Behavior .....	3
Business Administration 261/263, Co-op I .....	3
Business Administration 262/264, Co-op II.....	3
Philosophy 250, Sophomore Seminar in Philosophy.....	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 Associate in Applied Business degree.

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

## 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 ENGL 103
CLS 100	POSC 101
PHED 200	POSC 102
BUSA 103	HIST 201
COMM 101	HIS5 202
BUSA 100	BUSA 209
CIS 108	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

# Management and Marketing

**Level I Certificate - Customer Service** Program Code 153

**Level I Certificate - Management** Program Code 154

**Level I Certificate - Marketing** Program Code 155

**Advisors:** Greg Iwaniuk, (269) 927-1000 ext. 2949, iwaniuk@lakemichigancollege.edu

## 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

Business 103, Introduction to Business.....	3
Business 115, Principles of Customer Service.....	3
Business 116, Fundamentals of Quality Customer Service.....	1
Business 117, Customer Communication.....	1
Business 118, Special Customer Service Skills.....	1
Business 210, Business Correspondence.....	3
Computer Information Systems 108, Computer Operations, Microcomputing .....	3

**Total Credit Hours** ..... 15

See page 94 for Management and Marketing associate degree.

## Level I Management Certificate

Business 101, Business Accounting I .....	3
Business 103, Introduction to Business.....	3
Business 150, Job Search Seminar .....	1
Business 207, Small Business Management A, B and C .....	3
Business 211, Principles of Management.....	3
Business 220, Organizational Behavior .....	3

**Total Credit Hours** ..... 16

## Level I Marketing Certificate

Business 104, Salesmanship.....	3
Business 105, Principles of Retailing .....	3
Business 115, Principles of Customer Service.....	3
Business 208, Advertising and Sales Promotion .....	3
Business 209, Principles of Marketing .....	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.

# Manufacturing Engineering for Western Michigan University

**Associate in Applied Science Degree - Manufacturing Engineering - WMU**

Program Code 265

**Advisors:** James Larson, (269) 927-8962, [larson@lakemichigancollege.edu](mailto:larson@lakemichigancollege.edu)  
Mike Durren, (269) 927-8963, [durren@lakemichigancollege.edu](mailto:durren@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.

## College Requirements

## Credit Hours

English 101, English Composition.....	3
English 103, Technical Writing .....	3
Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health .....	3
Political Science 101, National Governments, 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
Drafting 102, Machine Drawing, or Machine Tool Technology 130, Precision Inspection .....	3
Manufacturing 111, Manufacturing Process.....	3
Machine Tool Technology 241, CNC 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

## 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

ENGL 101  
MATH 151  
PHYS 201  
POSC 101, or  
POSC 102, or  
HIST 201, or  
HIST 202

### Year 2 – Fall

MATH 202  
CHEM 111  
ENGR 103  
Group III elective or  
CIS 254  
prerequisite  
PHED 200  
MANU 122

### Year 1 – Spring

ENGL 102 or 103  
MATH 201  
PHYS 202  
COMM 101  
DRAF 102 or MACH 130

### Year 2 – Spring

MATH 252  
PHIL 102  
CIS 254  
COMM 101  
PHED 220  
MACH 241

# Mathematics

## Associate in Science Degree - TRANSFER PROGRAM Program Code 052

**Advisors:** Chris Bendixen, (269) 927-8755, bendixen@lakemichigancollege.edu  
Dr. Gerry Cox, (269) 927-1000, ext. 5078, cox@lakemichigancollege.edu  
Jim Larson, (269) 927-8962, larson@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, or English 103, Technical Writing .....	3
Physical Education 212, Health and Fitness, or 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 Present .....	3
Mathematics 151, Calculus I .....	5
Mathematics 201, Calculus II .....	5
Mathematics 202, Calculus III .....	5
Mathematics 252, Differential Equations .....	4
Physics 201, Engineering Physics I.....	5
Physics 202, Engineering Physics II .....	5
Group II Social Science electives.....	6
Group III Humanities electives.....	9
General Electives.....	7/8

### 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.**

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

# Medical Assistant Technology

**1+1 with Kalamazoo Valley Community College** Program Code 238  
**Associate in Applied Science Degree from KVCC**

**Advisor:** Chad Dee, (269) 926-4296, cdee@lakemichigancollege.edu  
Student Services Academic Advising (269) 927-8128

## Program Prerequisites

You must demonstrate 40 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

English 101, English Composition.....	3
English 103, Technical 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

### Major Requirements (at KVCC)

See KVCC program information at [www.kvcc.edu/academics/medassistadmission](http://www.kvcc.edu/academics/medassistadmission)  
and [healthcareers@kvcc.edu](mailto:healthcareers@kvcc.edu)

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

## 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

Semester 1	Semester 2
ENGL 101	ENGL 103
BIOL 101	BIOL 108
POSC 101	BIOL 205
POST 102	CIS 102
PHED Elective	CIS 108
OIS 217	PSYC 201
	PHED Elective
	OIS 208

Years 2 & 3 taken at KVCC.

# Medical Office Systems

**Certificate of Achievement - Medical Office Assistant** Program Code 149  
**Associate in Applied Business Degree** Program Code 146

**Advisor:** Christine Davis (269) 927-8877 cdavis@lakemichigancollege.edu

## Program Prerequisites

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

## Associate Degree Requirements

## Credit Hours

### College Requirements

*English 101, English Composition .....	3
English 102, English Composition, or English 103, Technical 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

Biology 205, Human Anatomy .....	4
Communication 101, Introduction to Public Speaking .....	3
Group I, II, or III Electives .....	2

### Major Requirements

Business Administration 100, Business Mathematics .....	3
*Business Administration 103, Introduction to Business .....	3
Business Administration 115, Principles of Customer Service .....	3
Business Administration 210, Business Correspondence .....	3
*Office Information Systems 104, Proofreading and Editing .....	2
*Office Information Systems 114, Computer Applications 1 .....	3
*Office Information Systems 125, Records Management .....	3
*Office Information Systems 201, Computer Applications 2 .....	3
*Office Information Systems 205, Integrated Business Projects .....	4
*Office Information Systems 220, Medical Office Procedures .....	3
Office Information Systems 261, Office Co-op I .....	3
*Reading 110, Medical Terminology .....	1

### Program Electives (Select 6 credit hours for degree, 3 credit hours for certificate)

Business Administration 101, Business Accounting I .....	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, Operating Systems .....	3
Computer Information Systems 111, Database Concepts .....	3
Computer Information Systems 295, Project Management .....	3
Health 120, Health and Health Occupations .....	2
*Office Information Systems 211, Office Procedures .....	3
Office Information Systems 262, Office Co-op II .....	3

\*Required for certificate program

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

NOTE: You should notify your program 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 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 software, and keyboarding. As a 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 64-credit program in Medical Office Systems, you may apply for an Associate in Applied Business degree.

By completing the 31-credit program for Medical Office Assistant (courses denoted with single asterisk (\*)), you may apply for a Certificate of Achievement.

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit

[www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer).

## Sample Course Sequence

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

### Certificate Program

Semester 1	Semester 2
ENGL 101	OIS 201
OIS 114	OIS 208
OIS 211	OIS 205
OIS 104	OIS 220
Program Elective	READ 110
	OIS 125

### Associate's Degree Program

Semester 1	Semester 2	Semester 3
ENGL 101	ENGL 102 or	BIOL 205
OIS 114	ENGL 103	OIS 125
BUSA 210	OIS 201	POSC 101 or
OIS 211	PHED 200	POSC 102 or
OIS 104	READ 110	HIST 201 or
	Program Elective	HIST 202
	COMM 101	Program Elective
		Program Elective

### Semester 4

OIS 205  
OIS 208  
OIS 220  
OIS 261  
HIST 202  
General Elective

# Medicine & Osteopathic Medicine (Pre)

**Associate in Science Degree - TRANSFER PROGRAM** Program Code 084

**Advisors:** Dr. Susan Lentz, (269) 927-8624, [lentz@lakemichigancollege.edu](mailto: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 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, or ENGL 103 Technical 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
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
Group II Social Science electives.....	6
Group III Humanities electives.....	9

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

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

## 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.

It is highly advised that you supplement your curriculum with volunteering, shadowing, or working in a medical setting.

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 Pre-Medical advisor will assist you in planning your programs.

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



# Mortuary Science (Pre)

## Associate in Science Degree - TRANSFER PROGRAM Program Code 085

**Advisors:** Dr. Fran Miles (269) 927-1000 ext. 7157, miles@lakemichigancollege.edu  
Frank Stijnman (269) 927-8862, stijnman@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, or English 103, Technical 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
Mathematics 128, Pre-Calculus Algebra .....	4
Biology 101, Biological Science, or Biology 111, Principles of Biology I.....	4
Biology 108, Basic Human Anatomy & Physiology, or Biology 205, Human Anatomy.....	4
Biology 210, Microbiology .....	4
Chemistry 101, Introductory Chemistry I.....	4
Chemistry 102, Introductory Chemistry II .....	4
Chemistry 106, Fundamentals of Organic and Biochemistry .....	4
Psychology 201, Introduction to Psychology .....	3
Psychology 203, Human Development, or Psychology 204, Child Development .....	3
Communication 101, Introduction to Public Speaking.....	3
Group III (Humanities) Electives .....	6
Business Administration 201, Principles of Accounting I.....	4
Computer Information Systems 100, Intro to Computer Literacy, or Computer Information Systems 245, COBOL, or Computer Information Systems 254, BASIC.....	3
General Electives.....	1 or 2

### About the Area of Study

A one-year Mortuary Science program is offered at Wayne State University. See page 107 for details.

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer).

# Mortuary Science (Pre) for Wayne State University

## Associate in Science Degree - TRANSFER PROGRAM Program Code 085

**Advisors:** Dr. Fran Miles (269) 927-1000 ext. 7157, miles@lakemichigancollege.edu  
Frank Stijnman (269) 927-8862, stijnman@lakemichigancollege.edu  
Wayne State University Heather Sandlin, hsandlin@wayne.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, or English 103, Technical 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
Mathematics 128, Pre-Calculus Algebra .....	4
Biology 101, Biological Science, or Biology 111, Principles of Biology I.....	4
Biology 108, Basic Human Anatomy & Physiology, or Biology 205, Human Anatomy.....	4
Biology 210, Microbiology .....	4
Chemistry 101, Introductory Chemistry I.....	4
Chemistry 102, Introductory Chemistry II .....	4
Chemistry 106, Fundamentals of Organic and Biochemistry.....	4
Psychology 201, Introduction to Psychology .....	3
Psychology 203, Human Development, or Psychology 204, Child Development .....	3
Communication 101, Introduction to Public Speaking.....	3
Group III (Humanities) Electives .....	6
Business Administration 201, Principles of Accounting I.....	4
Computer Information Systems 100, Intro to Computer Literacy, or Computer Information Systems 245, COBOL, or Computer Information Systems 254, BASIC.....	3
General Electives.....	1 or 2

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer).

### About the Area of Study

A one-year Mortuary Science program is offered by Wayne State University and requires 60 semester hours of undergraduate credit. A two-year sequence of courses, which includes 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 Mortuary curriculum. Consult the faculty advisor for specific guidance. **There is a 61-credit degree requirement needed for graduation from LMC.**

# Music

## Associate in Arts Degree - TRANSFER PROGRAM Program Code 035

**Advisor:** Daniel Hendrickson, (269) 927-6588, [hendrick@lakemichigancollege.edu](mailto:hendrick@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	Credit Hours
English 101, English Composition.....	3
English 102, English Composition, or English 103 Technical 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
Group Ia electives .....	4
Group Ib electives .....	4 or 5
Group Ic elective .....	3 or 4 or 5
Group II Social Science electives.....	6
Group III Humanities electives.....	9
General Electives.....	24/25

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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 Arts. 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 music 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) 927-1000 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 non-majors 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 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.

# Music

## Associate in Applied Sciences Degree - TRANSFER PROGRAM Program Code 215

**Advisor:** Daniel Hendrickson, (269) 927-6588, [hendrick@lakemichigancollege.edu](mailto:hendrick@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.

### Associate Degree Requirements

### Credit Hours

#### College Requirements

** English 101, English Composition .....	3
English 102, English Composition, or English 103, Technical 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

Group Ia or Ib Elective .....	4 or 5
Group II or III Electives .....	7

#### Electives

Music 100+ or 200+, Applied Music .....	8
Music 101, Concert Choir, or Music 103, Symphonic Wind Ensemble-Southshore Concert Band.....	8
Music 114, Piano Class I .....	2
Music 115, Piano Class II.....	2
Music 162, Basic Music I .....	3
Music 163, Basic Music II.....	3
Music 262, Basic Music III.....	3
Music 263, Basic Music IV .....	3
Music 164, Aural Comprehension I .....	1
Music 165, Aural Comprehension II.....	1
Music 264, Aural Comprehension III.....	1
Music 265, Aural Comprehension IV .....	1
Music 213, Music History I.....	3
Music 214, Music History II.....	3

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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 a Bachelor of Arts, Bachelor of 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.

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# Nursing (Registered)

## 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 Dr. Delores Jackson at (269) 927-8762 for information.

Appointments are made by the Health Science secretary by calling (269) 927-8768.

## Admission Requirements

The Nursing programs have special admission procedures and limited enrollment. Please see the specific admission requirements for health science students on page 16. 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

## Credit Hours

Reading 110, Medical Terminology Vocabulary (or equivalent).....	1
Biology 101, Biological Science, or Biology 108, Basic Humn A-P.....	4
Biology 205, Human Anatomy .....	4
Computer Information Systems 102, Basic Computer Literacy .....	1
(or substitute)	
Chemistry 104, Fundamentals of General, Organic, and Biochemistry, or CHEM 105 Fundamentals of Inorganic Chemistry .....	4

## College Requirements

English 101, English Composition.....	3
English 102, English Composition (not ENGL 103).....	3
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, or Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health .....	1 or 3

## 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 285, Children's Health .....	4
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 "C" grade in all science and all nursing classes. There is also a ten-year time limit on science courses accepted for program entrance.

Note: BIOL 206 has prerequisites, including CHEM 101 (Prior to fall 2006), or CHEM 104 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 Department of Community Health, Bureau of Health Professions and is accredited by the NLNAC (National League for Nursing Accrediting Commission, Inc is 3343 Peachtree Road NE Suite 850 Atlanta, GA 30326, Phone: 404-975-5000. This agency is a resource for information about length of programs and required tuition and fees. **There is a 71-credit degree requirement needed for graduation.**

## **Nursing (Registered) continued**

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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 Department of Community Health, Bureau of Health Professions, 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 Department of Community Health, Bureau of Health Professions, (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 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 LMC Nursing program advisor for more information about transferring credit. LMC has formal articulation agreements with Ferris State University and Western Michigan University.



# Optometry (Pre)

**Associate in Science Degree - TRANSFER PROGRAM** Program Code 086

**Advisor:** Dr. Susan Lentz, (269) 927-8624, [lentz@lakemichigancollege.edu](mailto: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 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, or English 103, Technical 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
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
Group II Social Science electives.....	6
Group III Humanities electives.....	9
General Electives.....	5/6

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

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

## 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.**

Optometrists start with a pre-med curriculum. It is highly advised for you to supplement your curriculum with volunteering, shadowing or working in a setting with optometrists. A career in optometry may include private practice, large chain stores, military institutions or academies to name a few. Optometrists are involved in eye care, diagnostics, and vision correction techniques.

# Paramedic Program

**Certificate of Achievement - Paramedic** Program Code 213

**Associate in Applied Science Degree** Program Code 212

**Advisors:** Anthony Pantaleo, (269) 927-1000 ext. 5230, apantaleo@medic1ambulance.org  
Nicole Smith, (269) 925-2144, nsmith@medic1ambulance.org

## Program Prerequisites

This program has special admission procedures based on a program specific application process and limited enrollment. Please contact the Admissions Office or an advisor 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.

\*EMT 162, Basic EMT ..... 8

## Degree Requirements

## Credit Hours

## College Requirements

English 101, English Composition ..... 3

English 102, English Composition, or  
English 103, Technical 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, or  
Physical Education 212, Health & Fitness, or  
Physical Education 214, Personal Health ..... 1 or 3

## Support Courses

Psychology 201, Introduction to Psychology ..... 3

Communication 101, Introduction to Public Speaking ..... 3

## Major Requirements

\*Paramedic 101, Advanced EMT I ..... 8

\*Paramedic 102, Advanced EMT Lab I ..... 2

\*Paramedic 103, Advanced EMT Clinical I ..... 1

\*Paramedic 104, Advanced EMT Human Body & Pathophysiology ..... 4

\*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

\* Courses required for Certificate of Achievement - Paramedic

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

## About the Area of Study

The Paramedic program trains you to become an emergency medical technician – paramedic. This 12-month program begins fall semester and continues the entire year to the following September. You will obtain clinical experience at local ambulance providers and health care facilities in addition to formal classroom instruction provided on campus. Paramedics are employed in pre-hospital ambulances, hospitals, clinics, and physicians offices where they care for patients with various conditions. In addition to preparing patients and operating equipment, paramedic students also keep patient records and may prepare treatment plans, evaluate equipment readiness, or manage patient care under supervision of licensed staff.

## Program Sponsor & Approval

This program is sponsored by Medic 1 Ambulance, Benton Harbor, MI, (269) 925-2144. The program sponsor is approved by :  
Michigan Department of Community Health  
EMS & Trauma Systems Section  
201 Townsend Street  
Lansing, MI 48913

## Degree and Certificate

Upon successful completion of the 48 credit program, you may apply for a Certificate of Achievement. Upon successful completion of the 64-credit 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. Course completion does not guarantee licensure.

## 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 223
PARA 103	PARA 203	PARA 222
PARA 104	PARA 204	PARA 224
		PARA 230

Semester 4	Semester 5
ENG 101	ENG 102/103
POSC 101/102	COMM 101
or	PSYC 201
HIST 201/202	
PHED 200	

# Pharmacy (Pre)

## Associate in Science Degree - TRANSFER PROGRAM Program Code 087

**Advisor:** Dr. Bal Barot, (269) 927-8754, 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

### Credit Hours

English 101, English Composition.....	3
English 102, English Composition, or English 103, Technical 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
Mathematics 151, Calculus I .....	5
Biology 111, Principles of Biology I.....	4
Biology 112, Principles of Biology II.....	4
Biology 210, Microbiology .....	4
Biology 212, Genetics .....	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
Business Administration 203, Macroeconomics.....	3
Psychology 201, Introduction to Psychology, or Sociology 101, Principles of Sociology .....	3
Communication 101, Introduction to Public Speaking.....	3
Group III (Humanities) Electives .....	6

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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 Pre-Pharmacy advisor. **There is a 61-credit degree requirement needed for graduation.**

# Philosophy

## Associate in Arts Degree - TRANSFER PROGRAM Program Code 022

**Advisor:** Dr. Denise Scameheorn, (269) 927-8775 [scameheo@lakemichigancollege.edu](mailto:scameheo@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 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.....	3
English 102, English Composition, or English 103, Technical 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
Group Ia elective.....	4
Group Ib elective.....	4 or 5
Group Ic elective .....	3 or 4, or 5
Group II Social Science electives.....	6
Group III Humanities electives.....	9
General Electives.....	24/25

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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.

# Physical Education & Wellness

**Associate in Science Degree - TRANSFER PROGRAM** Program Code 091

**Advisors:** Jill Claeys, (269) 927-8964, claeys@lakemichigancollege.edu  
Daniel Meyer, (269) 927-8745, 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 Hours
English 101, English Composition.....	3
English 102, English Composition, or English 103, Technical Writing .....	3
Physical Education 212, Health and Fitness, or 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 Present .....	3
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
Physical Education 201, Foundations of Physical Education .....	3
Psychology 201, Introduction to Psychology .....	3
Psychology 203, Human Development .....	3
Physical Education electives and General Electives .....	9/10
Group Ia, Ib or Ic electives .....	8/9
Group III Humanities electives .....	6
Group 1c elective .....	3 or 4 or 5

## 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.**

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

# Physical Science

## Associate in Science Degree - TRANSFER PROGRAM Program Code 063

**Advisor:** Dr. Cole Lovett, (269) 927-8744, [lovett@lakemichigancollege.edu](mailto:lovett@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, or English 103, Technical 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
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
Group II Social Science electives.....	6
Group III Humanities electives.....	9
General Electives.....	9/10

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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 initial preparation work in a science field. **There is a 61-credit degree requirement needed for graduation.**

# Physical Therapy (Pre)

**Associate in Science Degree - TRANSFER PROGRAM** Program Code 088

**Advisor:** Jill Claeys, (269) 927-8964, claeys@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.**

**Go to <http://www.ptcas.org/ProgramPrereqs/>**  
for Physical Therapist Centralized Application Service.

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 Hour

English 101, English Composition.....	3
English 102, English Composition, or English 103, Technical Writing .....	3
* Physical Education 212, Health and Fitness, or Physical Education 214, Personal Health .....	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
Biology 205, Human Anatomy .....	4
Biology 206, Human Physiology.....	4
Chemistry 104, Fundamentals of General, Organic & Biochemistry .....	4
Chemistry 106, Fundamentals of Organic and Biologic Chemistry, or Chemistry 111, General Chemistry I.....	4
Chemistry 112, General Chemistry II .....	4
Physics 101, General Physics I .....	5
Physics 102, General Physics II.....	5
Mathematics 135, Algebra and Trigonometry .....	5
Mathematics 216, Intro to Statistics .....	3
Psychology 201, Introduction to Psychology .....	3
Psychology 203, Human Development .....	3
Group III electives.....	9
General elective .....	2 or 3

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

## 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 Assistant (Pre)

## Associate in Science Degree – TRANSFER PROGRAM Program Code 076

**Advisor:** Dr. Susan Lentz, (269) 927-8624, [lentz@lakemichigancollege.edu](mailto: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, or English 103, Technical 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 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

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

### About the Area of Study

Students preparing for a career as a Physician 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 prerequisites for upper-division (junior/senior) courses in fulfillment of the Physician 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 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.



# Physics

## Associate in Science Degree - TRANSFER PROGRAM Program Code 065

**Advisor:** Mike Durren, (269) 927-8963 [durren@lakemichigancollege.edu](mailto: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

### Credit Hours

English 101, English Composition.....	3
English 102, English Composition, or English 103, Technical 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
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 .....	4
Physics 201, Engineering Physics I.....	5
Physics 202, Engineering Physics II .....	5
Group II Social Science electives.....	6
Group III Humanities electives.....	9

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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.**

# Political Science

## Associate in Arts Degree - TRANSFER PROGRAM Program Code 014

**Advisor:** Dr. Gary C. Roberts, (269) 927-8771, 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 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, or English 103, Technical 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
Group Ia elective.....	4
Group Ib elective.....	4 or 5
Group Ic elective .....	3 or 4 or 5
Group II Social Science electives.....	6
Group III Humanities electives.....	9
Political Science or General Electives .....	24/25

### The following Political Science classes are offered at Lake Michigan College:

Political Science 101, National Government.....	3
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.....	3
Political Science 260, Introduction to Public Policy.....	3

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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.**

# Psychology

## Associate in Arts Degree - TRANSFER PROGRAM Program Code 012

**Advisors:** Dr. Denise Scameheorn, (269) 927-8775, [scameheo@lakemichigancollege.edu](mailto:scameheo@lakemichigancollege.edu)  
Dr. Amy Scrima, (269) 927-8777, [ascrima@lakemichigancollege.edu](mailto:ascrima@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 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, or English 103 Technical 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
Group Ia elective.....	4
Group Ib elective.....	4 or 5
Group Ic elective .....	3 or 4 or 5
Group II Social Science electives.....	6
Group III Humanities electives.....	9
Psychology or General electives.....	24/25

#### 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 Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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.**

# Radiologic Technology

## Associate in Applied Science Degree Program Code 221

**Advisor:** Kerry Mohnney, (269) 927-8748, mohnney@lakemichigancollege.edu  
Student Services Academic Advising (269) 927-8128  
Contact Student Services Academic Advising at ext. 8128 or the Health Science office at (269) 927-8768 for complete details.

### Admission Requirements

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 16. 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 and Support Courses (required to begin program)

** Biology 205, Human Anatomy.....	4
** Physical Science 101, Chemistry and Physics .....	4
** Health 166, CPR/AED (or equivalent) .....	1
** English 101, English Composition .....	3
** Reading 110, Medical Terminology .....	1
** Psychology 201, Introduction to Psychology .....	3
** Math 122, Intermediate Algebra.....	4

### Degree Requirements

### Credit Hours

#### College Requirements

English 101, English Composition (completed as program prerequisite).....	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, or Physical Education 214, Personal Health .....	1/3

### Major Requirements

Radiologic Technology 130, Introduction to Radiography .....	3
Radiologic Technology 131, Radiographic Positioning I.....	6
Radiologic Technology 134, Radiographic Physics .....	4
Radiologic Technology 138, Clinical Experience I .....	2
Radiologic Technology 139, Common Equipment and Procedures.....	4
Radiologic Technology 140, Radiographic Positioning II.....	3
Radiologic Technology 141, Contrast Studies.....	3
Radiologic Technology 143, Clinical Experience II.....	3
Radiologic Technology 144, Radiographic Positioning III .....	3
Radiologic Technology 145, Radiographic Protect/Biology .....	2
Radiologic Technology 228, Computer Applications in Med Imaging .....	3
Radiologic Technology 229, Clinical Experience III.....	4
Radiologic Technology 232, Clinical Experience IV .....	3
Radiologic Technology 240, Radiographic Quality.....	4
Radiologic Technology 241, Sectional Anatomy & Modalities .....	3

\*\* Support course needed for graduation

### 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 a 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 work with electronic medical records and may prepare exam 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. [www.jrcert.org](http://www.jrcert.org).

### 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 Technologists (ARRT) national certification examination. Any applicant who has been convicted of a felony and some misdemeanors should 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 102	RADT 138	PHED 200
RADT 130	RADT 139	RADT 143
RADT 131	RADT 140	RADT 144
RADT 134	RADT 141	RADT 145

Semester 4	Semester 5
RADT 228	POSC 101 or POSC 102
RADT 229	HIST 201 or HIST 202
	RADT 232
	RADT 240
	RADT 241

# Respiratory Care

**1 + 2 with Kalamazoo Valley Community College** Program Code 205

**Associate in Applied Science Degree from KVCC**

**Advisor:** Dr. Delores Jackson, (269) 927-8762, [jacksond@lakemichigancollege.edu](mailto:jacksond@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

### First Year Courses at Lake Michigan College

English 101, English Composition.....	3
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 104, Fundamentals of General, Organic & Biochemistry.....	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

## Major Requirements (at KVCC)

See KVCC program information at [www.kvcc.edu](http://www.kvcc.edu) or [healthcareers@kvcc.edu](mailto:healthcareers@kvcc.edu)

## Admission Information

[www.kvcc.edu/academics/respiratoryadmission](http://www.kvcc.edu/academics/respiratoryadmission)

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

## 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 therapists 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
READ 110	

**Years 2 & 3 – Taken at KVCC**

# Skilled Trades Technology

**Certificate of Achievement - Skilled Trades Technology** Program Code 382

**Associate in Skilled Trades Technology** Program Code 381

**Advisors:** Ken Flowers, (269) 927-4103, 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, Technical 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.....	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 .....	2
Health 166, CPR/AED.....	1
Physics 110, Technical Physics.....	4
Group III Humanities (excluding COMM 101).....	3

### Major courses and electives

See program Advisor for course selection.....31/33

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.

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

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

## 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 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 possess 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) 927-8863, stone@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 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 plan to attend.**

Courses	Credit Hours
English 101, English Composition.....	3
English 102, English Composition, or English 103, Technical 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
Group Ia elective.....	4
Group Ib elective.....	4 or 5
Group Ic elective .....	3 or 4 or 5
Group II Social Science electives.....	6
Group III Humanities electives.....	9
Sociology or General electives .....	24/25

### 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 Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

## 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.**

# Theatre

## Associate in Arts Degree - TRANSFER PROGRAM Program Code 046

Advisor: Dr. Calvin McClinton, (269) 927-8627, [cmclinton@lakemichigancollege.edu](mailto:cmclinton@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 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, or English 103, Technical 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
Group Ia elective.....	4
Group Ib elective.....	4 or 5
Group Ic elective.....	3 or 4 or 5
Group II Social Science electives.....	6
Group III Humanities electives.....	9
General Electives.....	24/25

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

### Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

### 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 you 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.**



# Veterinary Medicine (Pre)

**Associate in Science Degree - TRANSFER PROGRAM** Program Code 089

**Advisor:** Dr. Susan Lentz, (269) 927-8624, [lentz@lakemichigancollege.edu](mailto: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 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, or English 103, Technical 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
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
Group II Social Science electives.....	6
Group III Humanities electives.....	9
General Electives.....	5/6

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

## Transfer Resources

If you are planning to transfer to a four-year college or university, you should become familiar with your chosen school's requirements. See your Academic Advisor for assistance in developing your Student Education Plan or visit [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer)

## 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 typical 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.**

# Water Purification Technology

**1+2 with Bay de Noc Community College** Program Code 383

**Associate in Applied Science Degree from Bay de Noc Community College**

**Advisor:** Charles Olszewski, (269) 927-8749, olszewskic@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

### First Year Courses at Lake Michigan College

English 101, English Composition.....	3
English 103, Technical 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, 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.**

# Occupational Study Programs

## *Non-Degree and Speciality Certificate Areas of Study*

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## Emergency Medical Services

**Advisor:** TBD, (269) 927-8768

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.

<b>Course</b>	<b>Credit Hours</b>
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Emergency Med. Tech. 162, Basic Emergency Medical Technician.....	8
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## Health

**Advisor:** TBD, (269) 927-8768

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.

<b>Courses</b>	<b>Credit Hours</b>
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Health 165, Standard First Aid and Personal Safety.....	2
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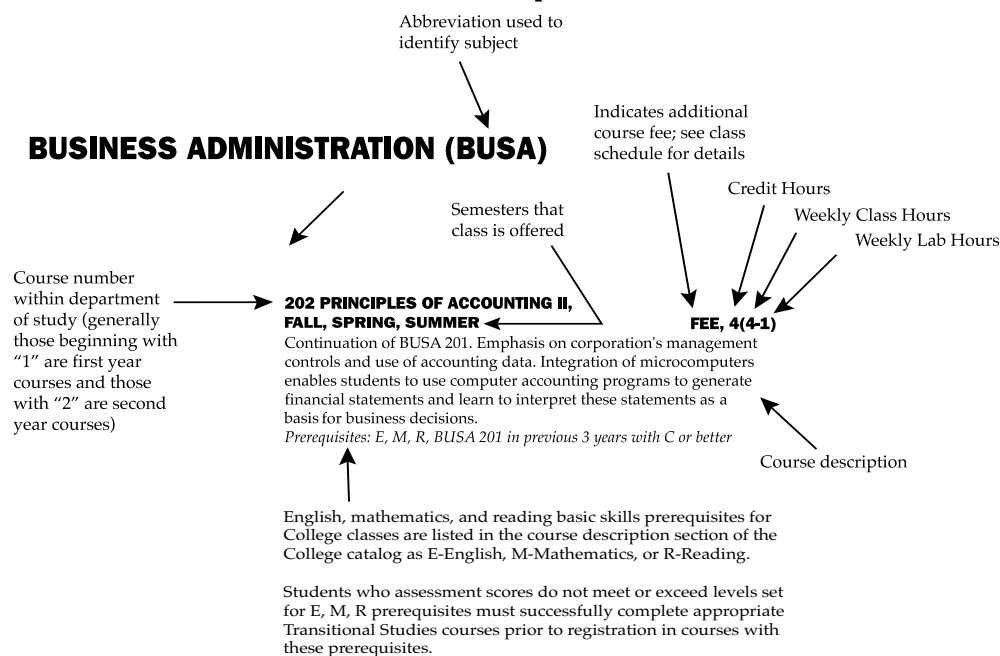
Health 166, CPR/AED .....	1
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# Course Descriptions

This section contains a description of all course offerings.  
In using this course list, students should note the following:

## How to Read Course Descriptions



**Concurrent** - may take course(s) at the same time

**Co-requisite** - must take course(s) at the same time

**Equivalent** - determined by department, chair, or full-time faculty

## English, Math, and Reading Pre-Requisite Requirements

"E" English	Minimum Score	"M" Math	Minimum Score	"R" Reading	Minimum Score
ACT English	18	ACT Math	18	ACT Reading	17
Asset Writing, or	44	Asset Math, or	41	Compass Reading, or	78
Compass Writing, or	78	Compass Pre-Algebra, or	46	SAT Verbal, or	490
SAT Verbal	490	SAT Quantitative	440	Nelson Denny Reading	11.8

If you do not meet minimum scores refer to Assessment information on page 17.

# 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, SPRING 3(3-0)**

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, SPRING 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, SPRING 2(0-4)**

Advanced study in watercolor through investigation of elements of design for personal expression. Open to all students.

*Prerequisite:* ART 105 with a C or better

## **109 BASIC DESIGN (2-D), FALL 3(0-6)**

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), SPRING 3(0-6)**

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, SPRING 3(2-2)**

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, SPRING 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, SPRING 3(0-6)**

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 with a C or better

## **120 CERAMICS I, FALL, SPRING FEE, 3(0-6)**

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, SPRING FEE, 3(0-6)**

Advanced course in study of clay. Hand-building and/or wheel-throwing problems according to individual interests. Experiments in glazing. Open to all students.

*Prerequisite:* ART 120 with a C or better

## **122 DRAWING I, FALL, SPRING 3(0-6)**

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, SPRING 3(0-6)**

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 with a C or better

## **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) 3(3-0)**

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, SPRING 3(3-0)**

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 the 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 SPRING, (EVEN YEARS) 3(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 SPRING, (ODD YEARS) 3(3-0)**

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

## **212 SCULPTURE I, FALL FEE, 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 FEE, 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 with a C or better

**251 STUDIO PROBLEMS: PAINTING, SPRING 3(0-6)**

Advanced study in acrylic and/or oil painting, emphasis on development of technical skills according to individual student interest.

*Prerequisites:* ART 115, ART 116 with a C or better

**252 STUDIO PROBLEMS: CERAMICS, FALL, SPRING FEE, 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 with a C or better

**253 STUDIO PROBLEMS: SCULPTURE, FALL FEE, 3(0-6)**

Advanced study in sculpture, with emphasis on improving individual directions in clay, plaster, metal, or wood.

*Prerequisites:* ART 212, ART 213 with a C or better

**254 STUDIO PROBLEMS: WATERCOLOR, SPRING 2 (0-4)**

Advanced study in watercolor to explore color and form according to individual interests.

*Prerequisites:* ART 105, ART 106 with a C or better

**260 STUDIO PROBLEMS: DRAWING, FALL, SPRING 3(0-6)**

Advanced course in drawing. Exploration of different directions of expression through personal experimentation.

*Prerequisites:* ART 122, ART 123 with a C or better

**BIOLOGY (BIOL)****101 BIOLOGICAL SCIENCE****FALL, SPRING, SUMMER FEE, 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, SPRING FEE, 4(3-2)**

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 real-world situations. Testing outside scheduled class time required.

*Prerequisites:* E, M, R

**111 PRINCIPLES OF BIOLOGY I, FALL FEE, 4(3-3)**

Emphasizes cell chemistry, cell structure and function, metabolism and energy, molecular biology, genetics, and biotechnology, as well as related laboratory experiences. For biology majors and minors, or students planning to transfer to pre-professional programs requiring biology.

*Prerequisites:* E, M, R, BIOL 101 (or recommend 2 yrs of high school biology, or one year of high school biology and one year of chemistry all with a grade of C or better)

**112 PRINCIPLES OF BIOLOGY II, SPRING FEE, 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 FEE, 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 students with the important concepts of biology and why it is 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.

*Prerequisites:* E, M, R

**204 ENVIRONMENTAL BIOLOGY, FALL FEE, 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, 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. Laboratory work includes organ dissection and the application of cadaver software and anatomical models illustrating the musculoskeletal, neuroendocrine, cardiopulmonary, and urogenital systems. Out of class testing is required. Two years of high school biology with a C or better within the last 5 years may substitute for the biology prerequisite with instructor's permission.

*Prerequisites:* E, R, BIOL 101 or BIOL108 or BIOL 111 or BIOL 112 with a grade of C or better.

**206 PRINCIPLES OF HUMAN PHYSIOLOGY FALL, SPRING, 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 opportunity 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. Two years of high school math and 1 year of high school chemistry within the last 5 years may substitute for the chemistry prerequisite.

*Prerequisites:* E, M, R, BIOL 205, and CHEM 101 or CHEM 104 or PHSC 101 or CHEM 111 or CHEM 203 with a grade of C or better.

**210 MICROBIOLOGY, FALL, SPRING FEE, 4(3-3)**

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 identification, culture, control, and assay of microorganisms.

*Prerequisites:* E, M, R, BIOL 101 or BIOL 111, CHEM 101 or CHEM 104 or CHEM 111 all with a grade of C or better

**212 GENETICS, SPRING FEE, 4(3-3)**

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 analysis, 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, BIOL 101 or HONR 101 or BIOL 111 or HONR 111

**270 LIFE SCIENCE FOR THE ELEMENTARY TEACHER II SPRING FEE, 3(2-3)**

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, SPRING 3(3-0)**

Fundamentals of addition, subtraction, division and multiplication with whole numbers, common fractions, percentage, and their application in business transactions.

*Prerequisites:* MATH 095

**101 BUSINESS ACCOUNTING I, FALL, SPRING 3(3-0)**

Accounting course for secretaries, small-business accountants and owners, and those interested in the 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, SPRING 3(3-0)**

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

**104 SALESMANSHIP, (ON DEMAND) 3(3-0)**

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) 3(3-0)**

Overview of field of retailing. Covers types of institutions, store location, fixtures and equipment, store organization, and retail sales.

*Prerequisites:* E, M, R

**108 SUPERVISORY SKILLS, FALL, SPRING 3(3-0)**

Fundamental skills of supervision and communication, focusing on the topics of performance standards, improvement and assessment, problem solving and leadership.

*Prerequisites:* E, R

**115 PRINCIPLES OF CUSTOMER SERVICE (ON DEMAND) 3(3-0)**

Applies basic business knowledge and skills to develop customer-focused strategies necessary to maintain competitive edge in the business world. Emphasizes fundamentals, skill-building and practical ideas to keep satisfied customers.

*Prerequisite:* BUSA 103

**116 FUNDAMENTALS OF QUALITY CUSTOMER SERVICE (ON DEMAND) 1(1-0)**

Defines QCS, discusses importance, describes necessary infrastructure and helps students recognize moments of truth. Gain understanding of customer-focused company.

*Prerequisite:* BUSA 103

**117 CUSTOMER COMMUNICATION, (ON DEMAND) 1(1-0)**

Effective communication skills are the basis of customer service programs. Students learn active listening skills, assertive verbal communication and impact of non-verbal language in the 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 dos and don'ts in providing customer services.

*Prerequisite:* BUSA 103

**150 JOB SEARCH SEMINAR, FALL, SPRING, (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, SPRING, SUMMER****4(4-1)**

Basic theoretical framework of accounting presented to enable students to understand accounting principles and concepts as developed for sole proprietorship and partnership. Integration of microcomputers enables students to experience computers in accounting.

*Prerequisites:* E, M, R

**202 PRINCIPLES OF ACCOUNTING II****FALL, SPRING, SUMMER****4(4-1)**

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 a basis for business decisions.

*Prerequisites:* E, M, R, BUSA 201 in previous 3 years with C or better

**203 PRINCIPLES OF ECONOMICS (Macro)****FALL, 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, SPRING, SUMMER****3(3-0)**

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, R, MATH 122 or MATH 128 or MATH 129 or MATH 130 or MATH 135 or MATH 151 or MATH 201 or MATH 202 or MATH 252 with a C or better.

**205 BUSINESS LAW I, FALL, SPRING****3(3-0)**

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

**206 BUSINESS LAW II, SPRING****3(3-0)**

Basic legal matters pertaining to sales, real property and lease, and partnerships and corporations.

*Prerequisites:* E, R, BUSA 205 or permission of instructor

**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 individual'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 analyzed 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, and distribution will be examined.

*Prerequisites:* E, M, R

**207C ENTREPRENEURSHIP C, FALL****1 (1-0)**

This course continues 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 will 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  
SPRING****3(3-0)**

Analysis of principles and practices of advertising and promoting merchandise. Study of organization and sales practices within industry and business.

*Prerequisites:* E, M, R

**209 PRINCIPLES OF MARKETING****FALL, SPRING, SUMMER****3(3-0)**

Analysis of the marketing task, various essential functions performed in marketing and numerous and varied types of institutions performing the role of marketing.

*Prerequisites:* E, M, R

**210 BUSINESS CORRESPONDENCE, FALL, SPRING****3(3-0)**

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, SPRING****3(3-0)**

Principles 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****SPRING, (ODD YEARS) 3(2-2)**

Computer applications for accounting including general ledger, accounts receivable, accounts payable, depreciation, and payroll and spreadsheet accounting.

*Prerequisites:* E, M, R, CIS 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, SPRING 3(3-0)**

Fundamentals of cost accounting procedures including job cost principles and practices. Basic course in manufacturing accounting and problem solving.

*Prerequisites:* E, M, R, BUSA 201, BUSA 202 in previous 3 years with C or better

**214 COST ACCOUNTING II, SPRING, SUMMER 3(3-0)**

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, BUSA 201, BUSA 202, BUSA 213 in previous 3 years with C or better

**216 BUSINESS STATISTICS, FALL, SPRING, SUMMER 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 128 or MATH 135 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, SPRING 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, BUSA 201, BUSA 202, BUSA 218 in previous 3 years with C or better

**220 ORGANIZATIONAL BEHAVIOR, FALL, SPRING 3(3-0)**

This course provides an examination of individual, interpersonal, group, and organization processes faced by employees. Current theory, research, and practice 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 3(3-0)**

Federal and state income tax laws as applied to individual, partnership, and corporation returns.

*Prerequisites:* E, M, R, BUSA 201 in previous 3 years with C or better

**225 PERSONNEL MANAGEMENT, (ON DEMAND) 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, SPRING 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 SPRING 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, BUSA 261 or equivalent

**263 MANAGEMENT TRAINEE CO-OP I FALL, SPRING 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, SPRING 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, BUSA 263 or equivalent, approval of Co-op Coordinator and signature of management program advisor

**265 ACCOUNTING CO-OP I, FALL, SPRING 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, SPRING 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:

1st 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, SPRING, SUMMER

FEE, 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)

FEE, 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

### 104 FUNDAMENTALS OF GENERAL, ORGANIC AND BIOCHEMISTRY, FALL, SPRING

FEE, 4(3-3)

Intense introductory course that integrates topics from general, organic and biochemistry and is geared toward Allied Health students. Measurements, conversions, atomic structure, bonding, states of matter, chemical reactions, stoichiometry, gas laws, acid/base chemistry, nuclear chemistry, functional groups, organic/biochem structures, isomers, nomenclature, enzymatic activity, and basic biochemical/metabolism reactions are all topics covered. Includes integrated laboratory experiences.

*Prerequisites:* E, R, M, and MATH 095 or pass algebra proficiency test

### 106 FUNDAMENTALS OF ORGANIC AND BIOLOGICAL CHEMISTRY, SPRING

FEE, 4(3-3)

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

FEE 4(3-3)

The first course in a two-term sequence of General Chemistry. Fundamental principles of chemistry are explored, including elements and compounds, naming, chemical bonding, reaction types, stoichiometry, thermochemistry, solution chemistry, gas laws, acid-base chemistry and molecular geometry. Integrated laboratory exercises reinforce concepts. One (1) year high school Chemistry, can serve as the Chemistry prerequisite with permission of the instructor. *Prerequisites:* E, R, MATH 122 OR (MATH 200 and MATH 210 and MATH 265), CHEM 101 with a grade of C or better or CHEM 104 all with a grade of C or better

### 112 GENERAL CHEMISTRY II, FALL

FEE 4(3-3)

The second course in a two-term sequence of General Chemistry. Topics include chemical kinetics, equilibrium chemistry, acid-base, pH, buffers, titrations, thermodynamics, redox and electrochemistry, nuclear chemistry, basic organic structure and biological molecules. Integrated laboratory exercises reinforce concepts.

*Prerequisites:* E, R, MATH 122, CHEM 111 with a grade of C or better

### 203 ORGANIC CHEMISTRY I, FALL

FEE, 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, SPRING

FEE, 4(3-3)

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, SPRING, SUMMER

1(1-0)

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 Canvas, 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.

*Prerequisites:* None

### 110 CAREER DECISION MAKING, FALL, SPRING

2(2-0)

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.

### 114 FUNDAMENTALS FOR SUCCESS, SUMMER

3(3-0)

Apply physiological, social and psychological principles to success in college, the world of work and life. Explore personality, interests and values to increase self-understanding and select an appropriate major and career. Learn about careers of the future. Discover strategies for lifelong learning by identifying your learning style and applying psychological principles of learning and memory to academic study strategies. Apply life management techniques such as time and money management to accomplish personal goals. Examine adult stages of development and develop a plan for wellness and living a long and healthy life. Learn strategies for motivation and stress management. Practice creative and critical thinking techniques.

*Prerequisites:* None

## **115 CAREER SUCCESS STRATEGIES**

**FALL, SPRING, SUMMER**

**3(3-0)**

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, SPRING**

**2(2-0)**

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, SPRING**

**1(1-0)**

Assists in growth in ability to love and care for oneself and others. Techniques practiced daily to enhance self-esteem and a variety of self-esteem issues presented.

# **COMMUNICATION (COMM)**

## **101 INTRODUCTION TO PUBLIC SPEAKING**

**FALL, SPRING**

**3(3-0)**

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)**

## **100 INTRODUCTION TO COMPUTER LITERACY**

**FALL, SPRING, SUMMER**

**3(3-0)**

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, SPRING**

**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, SPRING, SUMMER**

**3(3-0)**

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, 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**

**3(3-1)**

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*

## **117 INTRODUCTION TO GAME DESIGN THEORY**

**FALL, SPRING**

**3(3-0)**

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, 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, search engines and indexing.

*Prerequisites: E, M, R, CIS 108 (or equivalent)*

## **121 WINDOWS SKILLS, FALL, SPRING, SUMMER 1(0-1) OE/DE**

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, SPRING, SUMMER**

**1(0-1) OE/DE**

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, SPRING, SUMMER**

**1(0-1) OE/DE**

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, SPRING, SUMMER**

**1(0-1) OE/DE**

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, SPRING, SUMMER****1(0-1) OE/DE**

Fundamentals of presentation construction (projection devices, transparencies and 35mm 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.

**136 GAME DESIGN, FALL, SPRING****3(3-0)**

Principles and methodologies behind the rules and play of games. This Core Topic addresses the fundamental ideas behind the design of electronic and non-electronic games. It touches on relevant formal fields like systems theory, cybernetics and game theory. Game Design also includes basic interactive design, including interface design, information design and human/computer interaction. Perhaps most important for Game Design is a detailed study of how games function to create experiences, including rule design, play mechanics, game balancing, social game interaction and the integration of visual, audio, tactile and textual elements into the total game experience. More practical aspects of Game Design, such as game design documentation and play testing are also covered.

*Prerequisites:* CIS-117 or instructor permission, E, M, R

**140 COMPUTER NETWORKING FUNDAMENTALS****FALL, SPRING****FEE, 3(2-2)**

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-to-peer 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 with a C or better or CIS 108 with a C or better (CIS 100 or CIS 108 may be taken concurrently with this course).

**145 COMPUTER PROGRAMMING - COBOL I, FALL****3(3-0)**

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, CIS 100, CIS 251 or previous programming experience

**155 COMPARATIVE OPERATING SYSTEMS****FALL, SPRING****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, and use system and administrative tools. This course is not intended for transfer.

*Prerequisites:* E, M, R, CIS 100 with a C or better or CIS 108 with a C or better (CIS 100 or CIS 108 may be taken concurrently with this course).

**156 PRACTICAL COMPUTER SECURITY****FALL, SPRING****3(2-2)**

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, education, training and awareness regarding computer/network use, and the hardware and software defense solutions available. Covers topics from configuring personal virus detection to the function/operation of firewalls, VPNs, Access Control lists, etc. It is a practical course where students will gain an appreciation and better understanding of the terms, devices and software employed in securing computers and networks in homes, small businesses, and large businesses. This course meets general education requirement #1 Arts and Humanities and serves as an orientation to the CIS - Networking option.

*Prerequisites:* E, M, R, concurrently: CIS 100 or CIS 106 or CIS 108 (with a grade of C or better for each course)

**157 INTRODUCTION TO COMPUTER FORENSICS & INVESTIGATION, (ON DEMAND)****3(3-0)**

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

**158 GEOSPATIAL TECHNOLOGIES, FALL, SPRING****3(3-0)**

This survey course is designed to introduce several aspects of geospatial technologies. Topics include cartography and map design, geospatial data and GPS, geographic information systems (GIS), remote sensing (RS), and geospatial applications. This course will provide hands-on experience and a solid foundation that leads to more specialized courses leading to a CIS degree in GIS. Home computer access recommended.

*Prerequisites:* E, M, R

**200 PC HARDWARE, FALL, SPRING****3(2-2)**

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 (C or better) or CIS 108 (C or better) (CIS 100 or CIS 108 may be taken concurrently with this course)

**201 CISCO - HEALTH INFORMATION NETWORKING SPRING****3(2-2)**

This course is the Cisco Academy Health Information networking course. Topics include: Basic information on healthcare settings, principles of security and privacy in healthcare, fundamentals of Information Technology in healthcare, fundamentals of electronic health records systems, basic information on medical practice workflows and how to adjust workflows for electronic medical record implementations, designing a network to support a medical group, securing a network for a medical group, and troubleshooting a network for a medical group.

*Prerequisite:* CIS 228 with a C or better

**208 ADVANCED MICRO APPLICATIONS, SPRING 3(3-0)**

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 software in business environment. Not intended for transfer.

*Prerequisites: E, M, R, CIS 108 (or equivalent)*

**218 WEB 2.0, SPRING, SUMMER 3(1-2)**

Web 2.0 provides dynamic and comprehensive coverage of the most current information available on Web 2.0 today. You will recognize and demonstrate the current trends in technology and concepts associated with interactive information sharing and new web applications. You will employ the knowledge of web-based communities, social-networking, video and filing sharing sites as well as blogging, wikis and more.

*Prerequisites: CIS 100 or program advisor approval*

**219 PROFESSIONAL WEB DESIGN, SPRING 3(2-2)**

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.

*Prerequisites: E, M, R, CIS 118 or equivalent*

**220 WEB PROGRAMMING, FALL 3(2-2)**

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 118 or equivalent*

**221 SERVER-SIDE SCRIPTING, FALL 3(2-2)**

Server based scripting languages are used to develop powerful applications. Database applications using current scripting languages will be discussed and used.

*Prerequisites: E, M, R, CIS 118 or equivalent*

**222 ADVANCED WORD PROCESSING SKILLS FALL, SPRING, SUMMER 1(0-1) OE/DE**

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.

*Prerequisites: CIS 108 or CIS 122 or equivalent*

**223 ADVANCED WORKSHEET SKILLS FALL, SPRING, SUMMER 1(0-1) OE/DE**

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.

*Prerequisites: CIS 108 or CIS 123 or equivalent*

**224 ADVANCED DATABASE SKILLS FALL, SPRING, SUMMER 1(0-1) OE/DE**

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.

*Prerequisites: CIS 108 or CIS 124 or equivalent*

**225 ADVANCED PRESENTATION SKILLS****FALL, SPRING, SUMMER****1(0-1) OE/DE**

Advanced principles of presentation construction and proper ways to solve presentation problems. Practical problems illustrate presentation applications and capabilities in a graphical user/World Wide Web environment.

*Prerequisites: CIS 108 or CIS 125 or equivalent*

**226 CISCO ICND 1 REVIEW, SPRING 3(2-2)**

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 meet 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, CIS 140 or CIS 150, or Cisco Academy CCNA 1, or instructor permission*

**227 CISCO ICND2/CCNA REVIEW, SPRING 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, CIS 228 or Cisco Academy CCNA 1, 2 & CCNA 3, or instructor permission*

**228 SWITCHED & ROUTED NETWORKS, FALL 3(2-2)**

This course is the capstone course for LMC's CIS Networking option. It will focus on security of networks that include a minimum of switches, routers, and servers (how to secure these devices). The course will also include various devices specifically designed as security devices such as VPNs, firewalls, etc. 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), and additional switching and routing topics and devices such as VPNs, firewalls, etc. It also provides education and hands on experience with switching and routing topics not covered by Cisco CCNA level certifications. Education regarding security measures employed at switches, routers, and other networking devices such as VPNs, firewalls, etc. will be studied then configured on the devices in the lab. Students will configure routers and routing protocols, and devices such as VPNs, switches and firewalls. Students will build switched LANs, configure the WAN interfaces on routers, and devices such as firewalls and VPNs.

*Prerequisites: E, M, R, and CIS 226 (with a grade of C or better), or high school Cisco Academy CCNA 1 and CCNA 2 with a grade of B or better, or high school Cisco Discovery 1 and 2 with a grade of B or better; or high school Cisco Exploration 1 and 2 with a grade of B or better, and CIS 242 concurrently or program approval*

**237 GEOGRAPHIC INFORMATION SYSTEMS FALL, SPRING 3(2-2)**

This course introduces the basic principles and application of geographic information systems (GIS), map design and interpretation, and the nature and use of spatial data. Students gain hands-on experience in the various uses of geographic information and the methods for collection, management, exploration, analysis and presentation of vector and raster data.

*Prerequisites: E, M, R, CIS 158 or permission of instructor*

**238 REMOTE SENSING, FALL, SPRING 3(2-2)**

This course introduces concepts and procedures used in aerial and satellite image processing. Topics covered include sensor properties, image analysis and classification, image transformations and enhancement, applications and integration with GIS. Students will utilize ERDAS Image software to perform basic image manipulation, analysis, and display.

*Prerequisites:* E, M, R, CIS 158 or permission of instructor

**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.

*Prerequisites:* E, M, R, CIS 108 or CIS 208 or instructor permission

**242 WINDOWS SERVER, FALL, SPRING 3(2-2)**

Provides the fundamentals of Windows Server technologies. Covers many of the objectives required for the most current Microsoft Server Certification Exams: (e.g. #70-640 and #70-646). Hands-on labs supplement the classroom activities.

*Prerequisites:* E, M, R, and CIS 140, CIS 155

**245 COMPUTER PROGRAMMING - COBOL II SPRING 3(3-0)**

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, and advanced software applications.

*Prerequisites:* E, M, R, MATH 128, Pre-Calculus Algebra and CIS100, Introduction to Computer Literacy

**251 COMPUTER PROGRAMMING/BASIC FALL, SPRING 3(3-0)**

This course introduces the fundamental concepts and implementations of a modern visual programming language in a business environment. Major topics include general programming tools for business applications and fundamentals of business programming such as language syntax, declaration and data types, variables and constants, arrays, statements and expressions, conditions, programming structures (i.e. sequence, selection, iteration), and modularity of business applications.

*Prerequisites:* E, R, MATH 122, CIS 100 or CIS 108

**254 COMPUTER PROGRAMMING/C, FALL, SPRING 3(3-0)**

This course introduces the fundamental concepts and implementations of a modern C programming language in a business environment. Major topics include general programming tools for business applications and fundamentals of business programming such as language syntax, declaration and data types, variables and constants, arrays, statements and expressions, conditions, programming structures (i.e. sequence, selection, iteration), and modularity of business applications.

*Prerequisites:* E, M, R, MATH 122, CIS 100 or CIS 108

**255 STRUCTURED QUERY LANGUAGE, SPRING 3(3-0)**

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, CIS 111 or equivalent

**260 COMPUTER PROGRAMMING/VISUAL BASIC FALL, SPRING 3(3-0)**

This course is a continuation of CIS251 with more emphasis on top-down, modular, structured design and techniques involved in the production of large computer programs. Advanced language features such as web application, database, file access, object oriented programming, graphics and animation are discussed. Team programming project will be assigned.

*Prerequisites:* E, M, R, CIS 251 with a C or better, and MATH 128 or MATH 129 or MATH 135 (may be taken concurrently with this course)

**261 COMPUTER INFORMATION SYSTEMS CO-OP I FALL, SPRING 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, SPRING 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:* CIS 261, and approval of the co-op coordinator; E, M, R

**264 COMPUTER PROGRAMMING/C++ FALL, SPRING 3(3-0)**

This course is a continuation of CIS254 with more emphasis on top-down, modular, structured design and techniques involved in the production of large computer programs. Advanced language features such as web application, database, file access, object oriented programming, graphics and animation are discussed. Team programming project will be assigned.

*Prerequisites:* E, M, R, and CIS 254 or instructor approval

**265 COMPUTER PROGRAMMING VISUAL BASIC 2, SPRING 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

**295 PROJECT MANAGEMENT, SPRING 3(3-0)**

Understand the genesis of project management and its importance to improving the success of information technology projects.

*Prerequisites:* E, M, R, CIS 108 or CIS 208 or instructor permission

## CORRECTIONS, PROBATION & PAROLE (CORR)

### 160 INTRODUCTION TO CORRECTIONS, FALL 3(3-0)

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 3(3-0)

Introductory study of correctional institutions and role in criminal justice process and society. Course includes, 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, SPRING 3(3-0)

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 3(3-0)

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, SPRING 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, SPRING 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

## DANCE

### 101 BEGINNING BALLET 1(1-0)

Basics of classical ballet training. Includes terminology, body positions, movement vocabulary, and principles of body alignment. May be repeated for a maximum of four credit hours.

*Prerequisites:* None

### 102 BEGINNING JAZZ 1(1-0)

Jazz dance: its technique, history, and relationship to the fine and performing arts. Includes dance combinations, improvisations, and strength and flexibility exercises as well as lectures and video. May be repeated for a maximum of four credit hours.

*Prerequisites:* None

## DENTAL ASSISTING (DENT)

### 165 INTRODUCTION TO DENTAL ASSISTING FALL, 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 Director. Transitional studies courses can be taken concurrently.

### 166 CHAIRSIDE I FALL, SPRING, SUMMER OE/OE, FEE, 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 Director. Transitional studies courses cannot be taken concurrently.

### 167 CHAIRSIDE II FALL, SPRING, SUMMER OE/OE, FEE, 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 Director

### 168 CHAIRSIDE III FALL, SPRING, SUMMER OE/OE, FEE, 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 Director

### 169 CHAIRSIDE IV FALL, SPRING, SUMMER OE/OE, FEE, 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 Director

### 170 INTRODUCTION TO BUSINESS ASSISTING FALL, 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 Director

**171 INTRODUCTION TO DENTAL RADIOGRAPHY****FALL, SPRING, SUMMER OE/OE, FEE, 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 Director

**172 MEDICAL ISSUES IN THE DENTAL OFFICE****FALL, 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 Director

**173 CLINICAL I, (OFF CAMPUS)****FALL, SPRING, SUMMER FEE, 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, SPRING, SUMMER OE/OE, FEE, 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 Director

**175 RDA II, FALL, SPRING, SUMMER OE/OE, FEE, 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 Director

**176 CLINICAL II, (OFF CAMPUS)****FALL, SPRING, SUMMER FEE, 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, 3(3-0)**

Introduction to the physical and mathematical principles of ultrasonography. Review of: historical background; basic patient care skills; legal documentation; 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, DMSO 100

**102 GENERAL SONOGRAPHY I OB/GYN, FALL 4(4-0)**

Introduction to: fetal and maternal cross-sectional anatomy and pathology; biological effects of fetal ultrasonography, prenatal diagnoses and syndromes.

*Prerequisites:* E, M, R, DMSO 100

**103 SONOGRAPHY LAB APPLICATIONS I, FALL FEE, 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, longitudinal and coronal planes.

*Prerequisites:* E, M, R, DMSO 100, concurrently DMSO 101, DMSO 102

**104 CLINICAL EXPERIENCE A, FALL FEE, 2(0-16)**

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, DMSO 100

**200 GENERAL SONOGRAPHY II ABDOMEN, SPRING 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, DMSO 100, DMSO 101, DMSO 102, DMSO 103, DMSO 104

**201 GENERAL SONOGRAPHY II OB/GYN, SPRING 3(3-0)**

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, DMSO 101, DMSO 102, DMSO 103, DMSO 104

**202 SONOGRAPHY LAB APPLICATIONS II SPRING FEE, 3(0-6)**

A continuation of DMSO 103, with lab applications in general abdominal, small parts and OB/GYN sonographic cross-sectional anatomy and pathology demonstrated in the transverse, longitudinal and coronal planes.

*Prerequisites:* E, M, R, DMSO 101, DMSO 102, DMSO 103, DMSO 104

**203 SONOGRAPHIC PHYSICS I, FALL 3(3-0)**

The fundamental principles of acoustical physics; how sound is produced, manipulated and reacts with various mediums. Discussion and mathematical problem solving will be stressed in this course.

*Prerequisites:* E, M, R, DMSO 101, DMSO 102, DMSO 103, DMSO 104

**204 CLINICAL EXPERIENCE B, SPRING FEE, 2(0-2)**

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, DMSO 101, DMSO 102, DMSO 103, DMSO 104

**213 SONOGRAPHIC PHYSICS II, SPRING 3(3-0)**

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, DMSO 224



**214 CLINICAL EXPERIENCE C, SUMMER FEE, 5(0-40)**

Third in a five-semester sequence 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:* E, M, R, DMSO 200, DMSO 201, DMSO 202, DMSO 203, DMSO 204

**224 CLINICAL EXPERIENCE D, SUMMER, FALL FEE, 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.

*Prerequisites:* E, M, R, DMSO 214

**230 INTRODUCTION TO VASCULAR SONOGRAPHY & LAB APPLICATIONS 4(3-2)**

Introduction to non-invasive vascular scanning with focus on terminology, basic anatomy, generic protocols and enhanced lab applications.

*Prerequisites:* E, M, R, DMSO 224

**234 CLINICAL EXPERIENCE E, FALL FEE, 3 (0-24)**

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, DMSO 224

**240 SONOGRAPHIC REGISTRY REVIEW 2(2-0)**

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, DMSO 213, DMSO 230, DMSO 234

**DRAFTING & DESIGN (DRAF)****102 MACHINE DRAWING, SPRING FEE, 3(1-4)**

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, auxiliary views, threads/fasteners, weldments, advanced dimensioning/part tolerancing, geometric dimensioning and tolerancing, working drawings, assembly drawings and exploded views.

*Prerequisites:* ENGR 103, or ENGR 113

**201 TOOL DESIGN I, SPRING FEE, 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:* ENGR 103, or ENGR 113

**202 TOOL DESIGN II, SPRING FEE, 3(1-4)**

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, ENGR 113, DRAF 102, MACH 110

**203 DESCRIPTIVE GEOMETRY, SPRING FEE, 3(1-4)**

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, SPRING FEE, 4(2-4)**

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, SPRING FEE, 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 FEE, 3(1-4)**

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, SPRING FEE, 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

**DRAMA/THEATRE****110 PRINCIPLES AND PRACTICES OF ACTING I 3(2-2)**

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:* R

**111 PRINCIPLES AND PRACTICE OF ACTING II 3(2-2)**

Techniques and problems of stage actor. Emphasis on performing scenes. Stresses character development and ensemble acting. Students develop audition pieces.

*Prerequisite:* DRAM 110 with a C or better

**112 STAGECRAFT, SPRING 3(2-2)**

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.

**113 MUSICAL THEATRE PERFORMANCE I, FALL 3(3-0)**

This is an introduction to the process of song, dance and text preparation for actors in the presentation of musical theatre performances. Emphasis will be given to the synthesis of text, song and dance in the communication of ideas as they are presented in a story, song, play or work of art.

*Prerequisites:* E, R

**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, SPRING 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 3(3-0)**

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

## EARLY CHILDHOOD EDUCATION (ELCH)

**\*These courses are not applicable to a program in Elementary Education**

**110 INTRODUCTION TO EARLY CHILDHOOD EDUCATION FALL, SPRING, SUMMER 3(3-0)**

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 SPRING, FALL 2(2-0)**

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, SPRING 3(3-0)**

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. Integration of learning through a theme or project approach will also be addressed.

*Prerequisite:* R

**113 GUIDE YOUNG CHILDREN'S SOCIAL DEVELOPMENT SPRING 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 classroom 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 SPRING 3(3-0)**

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:* E, R

**213 CURRENT ISSUES IN EARLY CHILDHOOD, SPRING 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

# ELECTRONICS (ELEC)

## **100 DC ELECTRICITY, FALL, SPRING FEE, 4(3-2)**

Fundamentals of Direct Current (DC) electricity. Concepts include voltage, current, resistance, power, Ohm's Law, electromagnetism and identification, operation and characteristics of passive components. Circuit analysis introduced using Ohm's and Kirchoff's Voltage and Current Laws involving series, parallel and compound circuits. Circuit construction from schematics and use of basic test equipment in lab.  
*Prerequisites: R, M*

## **106 AC ELECTRICITY, FALL, SPRING FEE, 3(2-2)**

Beginning course in AC electricity. Topics include average, effective, peak, period and frequency of sine wave. Reactance, impedance and phase relationship of current and voltage in R-C, R-L and RLC circuits. Resonance, time constants and complex numbers covered. Use of oscilloscope and meters in lab.  
*Prerequisite: R, M, ELEC 100*

## **108 BASIC ELECTRONICS, FALL, SPRING FEE, 2(2-0)**

Study of theory of semiconductor devices, op-amp basics and applications, digital circuits. Concepts will include P-N junction, diodes and power supply circuits, BJT, FET and Thyristor basics; op-amp basics, operation, characteristics and applications; number systems, logic gates, logic circuit simplification, flip-flop and counter circuits.  
*Prerequisites: E, M, R, ELEC 100*

## **109 INTRODUCTION TO RESIDENTIAL WIRING AND CABLING FALL, SPRING 4(2-3)**

The course will introduce the students to electrical safe practices associated with residential wiring and cabling. Subjects include: Electrical Safety, Service Entrance, Receptacles and Switch Circuits, the National Electrical Code, and Cable Installation and Terminations.  
*Prerequisites: ELEC 100*

## **111 SEMICONDUCTORS, FALL, SPRING FEE, 4(0-5)**

Study of commonly used solid state devices including diodes, special application diodes, bipolar junction transistors, field effect transistors, MOSFET, UJT, Triac, Thyristors, and power control circuits. Discussion of most commonly used semiconductor devices and their theory of operation. Emphasis on characteristics of operation and application. Includes troubleshooting.  
*Prerequisites: E, M, R, ELEC 100, ELEC 106*

## **113 DIGITAL ELECTRONICS, FALL, SPRING FEE, 4(3-2)**

Basic building blocks of modern digitally-operated electronic equipment, operation of digital logic gates, flip-flops, BCD counters, shift registers and other sequential logic operations and binary and hexadecimal numbering systems. Various digital equipment and basic computer operations included.  
*Prerequisite: E, M, R, ELEC 100, ELEC 106, ELEC 111*

## **116 LINEAR ELECTRONICS, FALL, SPRING FEE, 4(0-5)**

Study of operational amplifiers, filter, oscillators and power supplies. Typical op-amp circuits covered include inverting and non-inverting amplifiers, integrators and comparators. Filter circuits covered include low, high and bandpass, typical oscillator circuits covered will be wein-bridge, LC and multivibrators. Power supply circuits such as rectifiers, regulators and filtering are part of course.  
*Prerequisite: E, M, R, ELEC 100, ELEC 106, ELEC 111*

## **151 TRANSFORMERS, MOTORS AND MOTOR CONTROLS, SPRING FEE, 4(3-2)**

Generation of AC voltage, transformer action and principles of AC motors, Delta and Wye transformer connection, and single-phase and three-phase motor controls. Students read and interpret motor and transformer electrical diagrams. Students spend approximately two hours per week participating in laboratory. Exercises provide relationship between theory and practical application.  
*Prerequisites: ELEC 100, ELEC 106*

## **152 ELECTRICAL MOTOR CONTROLS II, FALL, SPRING 4(3-2)**

Course will continue to build upon knowledge and skills obtained in ELEC151 Transformers, Motors, and Controls with a focus on advanced principles and applications of motor control common in the electrical industry. Students will develop and interpret complex ladder diagrams. Students will be introduced to the operation and use of Programmable Logic Controllers (PLCs) and Variable Frequency Drives (VFDs) in motor control. Students will complete lab exercises to provide a hands-on learning experience to establish relationships between the theory and practical application of the material presented.  
*Prerequisites: ELEC 151, MANU 120*

## **153 DIGITAL SIGNAL PROCESSOR FALL, SPRING FEE, 3(0-3.75)**

Study of Digital Signal Processor, CPU architecture, Central Arithmetic Logic Unit, program execution, addressing, and Peripherals. Hardware and software features for program control and use of DSP as FIR filter covered.  
*Prerequisites: E, M, R, ELEC 100, ELEC 106, ELEC 113, ELEC 208*

## **208 MICROPROCESSORS, FALL, SPRING FEE, 4(0-5)**

Microprocessors, architecture, programming, interfacing, internal function blocks and troubleshooting. Typical microprocessor systems covered. Use of assembly language applications to control stepper motors, AD and DA conversion and other peripheral hardware.  
*Prerequisite: E, M, R, ELEC 100, ELEC 106, ELEC 111*

## **211 SOLDERING, FALL, SPRING FEE, 1(1-0)**

Survey course about terminology and types of solder, techniques of soldering and unsoldering terminals and components to circuit boards, and various tools used in soldering process. Assembly of sample circuit board used to practice proper techniques.

## **214 PC MAINTENANCE, FALL, SPRING FEE, 4(0-5)**

Personal computer system operation, maintenance and repair. Systems covered include computer, keyboard, monitors, disk drives and printers. Instruction on use of diagnostic software, POST and setting up system is part of course. Students required to troubleshoot, identify and replace defective elements of system.  
*Prerequisite: ELEC 113*

## **230 INDUSTRIAL ELECTRONICS, FALL, SPRING FEE, 4(3-2)**

Study of control devices such as switches, relays (electromechanical and solid state), timers and motor controls. Also covers transducers and sensors such as t/c's, strain gauges and thermistors. Introduction to analog controllers and closed loop systems.  
*Prerequisite: E, M, R, ELEC 100, ELEC 106, ELEC 111*

## **231 COMMUNICATION ELECTRONICS, FALL, SPRING FEE, 4(3-2)**

Methods, circuits and devices used for transmission and receiving of information. Modulation concepts, satellite, two-way and optical communications. Introduction to principles and concepts of microwave and fiberoptic transmission of data.  
*Prerequisite: E, M, R, ELEC 100, ELEC 106, ELEC 111*

# EMERGENCY MEDICAL TECHNICIAN (EMT)

## 162 BASIC EMERGENCY MEDICAL TECHNICIAN

**FALL, SPRING**

**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 9 Saturdays.

## ENERGY (ENGY)

### 100 ENERGY/POWER INDUSTRY FUNDAMENTALS CONCEPTS, FALL, SPRING

**3(3-0)**

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.

*Prerequisites:* E, M, R

### 111 ENERGY GENERATION & DISTRIBUTION

**FALL, SPRING**

**3(3-0)**

To introduce students to energy production and distribution.

*Prerequisites:* E, M, R

### 116 FUNDAMENTALS OF NUCLEAR CHEMISTRY & RADIATION PROTECTION, FALL, SPRING

**3(3-0)**

Explain and apply the basic concepts of water chemistry control and reactor water chemistry. Explain the principles of radiation detection and monitors and the effects of radiation on matter, including body tissue. Perform calculations involving time, distance, shielding and dose rate. Describe the methods used for limiting radiation exposure and contamination.

*Prerequisites:* ENGY 100 or ENGY 111 with a grade of C or better

### 120 ENERGY PLANT DRAWINGS, FALL, SPRING

**3(2-2)**

This course covers the use of and relationship among typical drawings found at a 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 types of drawings together in order to perform work, locate components, or use for other typical applications.

*Prerequisites:* ENGY 100 or ENGY 111 with a grade of C or better

### 150 CODES & STANDARDS, FALL, SPRING

**FEE, 3(3-0)**

Interpretation and application of codes and standards in wind energy.

*Prerequisites:* M, R

### 155 WIND ENERGY APPLICATION

**FALL, SPRING**

**FEE, 3(2-2)**

Explain and apply the basic concepts of wind energy applications.

*Prerequisites:* M, R and ENGY 150 with a C or better (classes may be taken concurrently)

### 160 WIND INSTALLATION, FALL, SPRING

**FEE, 3(1-3)**

This course introduces fundamental concepts used to install small wind components.

*Prerequisites:* M, R and ENGY 155 with a C or better (classes may be taken concurrently)

### 165 SMALL WIND MAINTENANCE

**FALL, SPRING**

**FEE, 3(1-3)**

Troubleshooting, preventative maintenance and repair methods for small wind maintenance systems common to the field of wind energy.

*Prerequisites:* M, R and ENGY 160 with a C or better (classes may be taken concurrently)

### 182 BOILER THEORY, SAFETY, AND DESIGN SYSTEMS,

**FALL, SPRING**

**FEE, 3(3-0)**

This course provides an understanding of the concepts related to boiler design, boiler and boiler auxiliary equipment protection, combustion, heat production, steam production, boiler efficiency and operation.

*Prerequisites:* MATH 110 OR MATH 122 and ENGY 111, PHYS 110, ENGY 230, all with a C or better.

### 184 FOSSIL FUEL CYCLE, FALL, SPRING

**3(3-0)**

This course provides an understanding of the fuel handling and preparation processes used at a fossil fuel-electric generating station, the byproducts created as a result of combustion, the equipment put in place to measure and control those byproducts, and the regulatory requirements in place to protect the general public, the environment and site workers.

*Prerequisites:* MATH 110 OR MATH 122 and PHYS 110, CHEM 101, and ENGY 111 with a C or better.

### 185 LINE WORKER ORIENTATION, SUMMER

**1(1-0)**

This course provides prospective line worker apprenticeship candidates with an overview of the work they will be required to do as an apprentice and journeyman line worker. Students are introduced to the physical aspects and mental discipline required to perform the duties of a line worker with demonstrations and physical tests.

*Prerequisites:* None

### 186 LINE WORKER, SUMMER

**FEE 12(12-4)**

This course is designed to provide students with the basic knowledge, pole climbing skills, and basic Ground Worker/Utility Worker knowledge necessary to progress through the Line Worker certificate program

*Prerequisite:* ENGY 185

### 188 LINE WORKER FIELD EXPERIENCE, SUMMER

**2(0-2)**

This field experience is a planned work activity that is designed to introduce the student to the primary technical areas of the line worker field. This will help the student select possible career paths for full-time employment upon graduation.

*Prerequisites:* ENGY 185, ENGY 186

### 200 REACTOR PLANT MATERIALS, FALL, SPRING

**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.

*Prerequisites:* ENGY 100 or ENGY 111, MATH 122 and PHYS 110 with grades of C or better

**205 ENERGY FIELD EXPERIENCE****2(2-0)**

This field experience is a planned work activity that is designed to introduce the student to the primary technical areas within a power plant. During the field experience, students will have introductory instruction in the general operations of a power plant. They will then experience the various technical areas by rotating through the departments at the power plant. This will help the student select possible career paths for full-time employment upon graduation. Students will spend a minimum of 30 hours in the plant.

*Prerequisites:* ENGY 100 with a grade of C or better or ENGY 111 with a grade of C or better and ENGY 116 with a grade of C or better

**210 RADIATION DETECTION & PROTECTION  
FALL, SPRING****FEE, 3(2-2)**

This course presents an overview of the physics and chemistry of radiation and radioactive materials. The course will consist of descriptions of a number of different applications of radiation, their associated radionuclides, context(s) and rationale(s) of use, interactions with matter, shielding and energetic, decay products, and their production in reactors or accelerators. Included in the course will be appropriate mathematics such as unit conversions and exponentials.

*Prerequisites:* ENGY 100 or ENGY 111 with a grade of C or better, and MATH 122 with a grade of C or better, and PHYS 110 with a grade of C or better

**223 RADIATION MONITORING, FALL, SPRING****FEE, 3(2-2)**

This course presents scenarios in which radiation protection technicians (RPTs) monitor sources of radiation. A focus of this course will be on theory and operation of radiation monitors, maintenance and calibration of these systems, proper selection and use of various monitoring systems for evaluation of radioactive hazards, and the interpretation and reporting of such evaluations. Laboratory exercises are included.

*Prerequisites:* (ENGY 100 or ENGY 111) with a C or better and ENGY 200, ENGY 205, ENGY 210, ENGY 225, ENGY 230, ENGY 235 all with a grade of C or better

**225 REACTOR THEORY, SAFETY & DESIGN SYSTEMS  
FALL, SPRING****FEE, 3(3-0)**

This course provides an understanding of the concepts related to reactor plant protection, including fission process product barriers, limiting conditions for operation and safety limits; the basic concepts related to accident analysis, transient prevention, mitigation of core damage and accident management. Basic information about major industry operating experience is included.

*Prerequisites:* (ENGY 100 or ENGY 111) with a C or better and MATH 122 and PHYS 110 with a C or better

**230 THERMO-FLUID SCIENCES, FALL, SPRING****FEE, 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, entropy, 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:* (ENGY 100 or ENGY 111) with a C or better and MATH 122 and PHYS 110 with a C or better

**233 DOSIMETRY, FALL, SPRING****3(2-2)**

A study of 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 are included.

*Prerequisites:* ENGY 223 with a grade of C or better

**235 POWER PLANT COMPONENTS, FALL, SPRING****3(3-0)**

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:* (ENGY 100 or ENGY 111) with a C or better and MATH 122 and PHYS 110 with a grade of C or better

**240 CAPSTONE & CASE STUDY IN ENERGY TECHNOLOGY  
FALL, SPRING****FEE, 2(2-0)**

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 power generation 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. This course will also introduce students to pre-job interviewing and testing.

*Prerequisites:* (ENGY 100 or ENGY 111) with a grade of C or better and ENGY 116, ENGY 200, ENGY 205, ENGY 225, ENGY 230, ENGY 235, all with a grade of C or better

**243 RADIATION MATERIALS & CONTROL  
FALL, SPRING****FEE, 3(2-2)**

The course presents scenarios in which RPT's are required to provide safe control, movement, use, storage, transportation and disposal of radioactive materials.

*Prerequisites:* ENGY 233 with a grade of C or better

**249 SAFETY RESPONSE, FALL, SPRING****FEE, 3(2-2)**

Practical applications and demonstrations of radiation protection and health physics. Radiological survey and 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 will be introduced.

*Prerequisites:* ENGY 233 with a C or better

**250 GENERAL MAINTENANCE SYSTEMS & COMPONENTS  
FALL, SPRING****FEE, 3(3-0)**

The topics build on general systems and components knowledge. Component types and characteristics, common failure mechanism, and operation principles of plant components will be included.

*Prerequisites:* ENGY 100 or ENGY 111 with a grade of C or better and ENGY 116, ENGY 200, ENGY 205, ENGY 225, ENGY 230, ENGY 235 all with a grade of C or better

**253 RADIATION PROTECTION CAPSTONE****FALL, SPRING****3(3-0)**

The course is a capstone course which utilizes a problems-based approach to learning. This course will present radiation protection problems embedded in different radiation contexts, the majority of which are nuclear power reactor-based. Participants will be tasked with solving such problems as providing radiological coverage of jobs and high-risk and low-risk activities (e.g. outages), planning for protection from hazardous radiation, monitoring of activities in radioactive zones, and responding to emergencies.

*Prerequisites:* ENGY 223, ENGY 233, ENGY 243, ENGY 249, all with a grade of C or better

**255 MECHANICAL MAINTENANCE SYSTEMS & COMPONENTS, FALL, SPRING****3(2-2)**

The topics build on mechanical systems and components knowledge. Mechanical component types, characteristics, and applications will be included.

*Prerequisites:* ENGY 100 OR ENGY 111, ENGY 116, ENGY 200, ENGY 205, ENGY 225, ENGY 230, ENGY 235, ENGY 250 all with a C or better

**257 ELECTRICAL SYSTEMS & COMPONENTS MAINTENANCE, FALL, SPRING****3(2-2)**

These topics build on the electrical systems and components knowledge that are required for electrical maintenance personnel.

*Prerequisites:* ENGY 100 OR ENGY 111, ENGY 116, ENGY 200, ENGY 205, ENGY 225, ENGY 230, ENGY 235, ENGY 250 all with a C or better

**259 INSTRUMENT & CONTROL MAINTENANCE SYSTEMS & COMPONENTS, FALL, SPRING****3(2-2)**

The topics build on instrument and control systems and components knowledge.

*Prerequisites:* ENGY 100 or ENGY 111, ENGY 116, ENGY 200, ENGY 205, ENGY 225, ENGY 230, ENGY 235, ENGY 250 all with a C or better

**270 MECHANICAL OPERATIONS, FALL, SPRING FEE, 3(2-2)**

This course covers the construction, application, and operation of mechanical components in the power plant.

*Prerequisites:* ENGY 100 or ENGY 111 with a C or better and ENGY 116, ENGY 200, ENGY 205, ENGY 225, ENGY 230, ELEC 100, ELEC 106, ENGY 235 all with a C or better

**274 ELECTRICAL & HVAC OPERATIONS****FALL, SPRING****FEE, 3(2-2)**

This course covers the basic operation of electrical and HVAC systems associated with a power plant. It also describes basic construction, application, and operation of basic electrical and HVAC power plant components.

*Prerequisites:* ENGY 270 with a C or better

**278 OPERATION OF POWER PLANT COMPONENTS****FALL, SPRING****FEE, 3(2-2)**

This course provides basic knowledge needed to operate and monitor components associated with various systems in the power plant.

*Prerequisites:* ENGY 274 with a grade of C or better

**ENGINEERING (ENGR)****103 BEGINNING ENGINEERING DRAWING****FALL, SPRING****FEE, 4(2-4)**

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

**113 ENGINEERING DESIGN & GRAPHICS W/SOLIDWORKS, FALL, SPRING FEE 4(2-4)**

Beginning Engineering Drawing course in which the following areas are studied; Introduction to SolidWorks, Basic 3D solid modeling, Orthographic Projection, Sectional Views, Dimensioning Techniques, Auxiliary View Construction. The student through daily exercises including text assignments, handout assignments and chapter tests gain drawing skills and knowledge.

*Prerequisites:* E, M, R

**205 DESCRIPTIVE GEOMETRY, SPRING FEE, 3(1-4)**

Problems combining point, line and plane, intersections, developments, warped surfaces and tangent planes.

*Prerequisite:* ENGR 103

**210 ADVANCED SOLIDWORKS TECHNIQUES****FALL, SPRING****FEE 3(1-3)**

Advanced SolidWorks Techniques is a course designed to expose the student to the following areas of study; SolidWorks toolbox, threads and fasteners, the application of tolerances, ordinate dimensioning, baseline dimensioning, hole charts, creating a SolidWorks part template and drawing template, and assigning physical properties to a 3Dimensional part.

*Prerequisite:* ENGR 113 or permission of instructor

**ENGLISH (ENGL)**

*NOTE: \*This is a transitional course, college credit not received.*

*Courses that have identification numbers below 100 do not count toward total credit hours needed to earn a Certificate or Associate Degree.*

**\* 091 FUNDAMENTALS OF WRITING****FALL, SPRING, SUMMER****4(4-0)**

This introductory writing course focuses on learning and practicing the fundamental processes of written communication, including preparation and planning, drafting, understanding reader feedback, revising, and editing, proofreading, and correcting final drafts. Students will be expected to learn how to achieve a high level of quality in their paragraph and sentence-level writing and demonstrate a fundamental ability to construct full essays. Students will also practice the closely related activities of critical reading and thinking.

*Prerequisite:* Compass Reading of 50 or above or Co-requisite Enrollment in READ 083.

**\* 093 FOUNDATIONS OF COLLEGE WRITING****FALL, SPRING, SUMMER****4(4-0)**

This course focuses on learning and practicing the foundational processes of written communication necessary for college writing, including critical reading and thinking, planning, drafting, incorporating reader feedback, revising, editing, and basic techniques for incorporating sources and citation. Students will be expected to learn how to achieve a high level of quality for complete, well-organized essays that fully communicate a coherent position to readers.

*Prerequisites:* Compass Writing of 25 or Asset Writing of 36 or ENGL 091 with a C. or better AND R or Co-Requisite Enrollment in READ 084.

**101 ENGLISH COMPOSITION****FALL, SPRING, SUMMER****3(3-0)**

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, SPRING, SUMMER****3(3-0)**

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 a broad range of source materials.

*Prerequisite:* ENGL 101

**103 TECHNICAL WRITING, FALL, SPRING, SUMMER 3(3-0)**

Helps students write with greater skill, confidence and effectiveness on the job. Writing assignments develop ability to analyze specific organization, 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:* E, R, and ENGL 101

**201 GENDER STUDIES, ON DEMAND****3(3-0)**

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 DEMAND)****3(3-0)**

Examples 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 YEARS****3(3-0)**

Study 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, SPRING 3(3-0)**

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

**206 MODERN DRAMA, SPRING****3(3-0)**

Contemporary dramatic writing by reading modern plays representative of various countries, such as Russia, France, South Africa and Norway as well as England and America. Examples of chief dramatic types that have flourished from Ibsen to present day: realism, naturalism, symbolism and expressionism. Develops appreciation of drama and theatre.

*Prerequisite:* E, R

**208 LITERARY INTERPRETATION, FALL, SPRING 3 (3-0)**

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****3 (3-0)**

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 3(3-0)**

Survey of literature of pre-American Revolution texts to the Civil War. Emphasis on disclosure of liberty and conquest, and the development of an American voice. Examines American literature in terms of cultural, historical, and intellectual roots. Emphasis on the issues of race, gender and class along with the study of writings that reflect major literary and social movements.

*Prerequisites:* E, R

**211 AMERICAN LITERATURE 1865 TO PRESENT SPRING****3(3-0)**

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, SPRING 3(3-0)**

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

**215 POETRY****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, SPRING****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, SPRING****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)****3(3-0)**

Central themes and fictional approaches evident in contemporary fiction.

*Prerequisites:* E, R

**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.

181	Elementary Russian I	4 cr. hrs.
182	Elementary Russian II	4 cr. hrs.
188	Elementary Japanese I	4 cr. hrs.
189	Elementary Japanese II	4 cr. hrs.
195	Elementary Italian I	4 cr. hrs.
196	Elementary Italian II	4 cr. hrs.

**101 ELEMENTARY FRENCH I, FALL****4(4-0)**

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 CDs is required.

*Prerequisites:* E, R

**102 ELEMENTARY FRENCH II, SPRING****4(4-0)**

Continuation of FORL 101. Basic grammatical principles; conversation of more advanced level, continued writing, dictation and cultural study. Continued use of tapes or CDs required.

*Prerequisites:* E, R, FORL 101 with a C or better

**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 CDs. Culture and geography of Spanish-speaking countries.

*Prerequisites:* E, R

**122 ELEMENTARY SPANISH II, SPRING****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, FORL 121 with a C or better

**123 SPANISH FOR THE WORKPLACE, FALL, SPRING****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.

*Prerequisites:* None

**124 SPANISH FOR THE WORKPLACE II  
FALL, SPRING****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 instructor.

**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, with a C or better or successful completion of at least two years high school Spanish

**222 INTERMEDIATE SPANISH II, SPRING****4(4-0)**

Continuation of FORL 221. Emphasizes ability to speak, read, and write in Spanish.

*Prerequisites:* E, R, FORL 221

**251 ADVANCED ORAL AND WRITTEN SPANISH**

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, FORL 222 or equivalent

**GEOGRAPHY (GEOG)****101 HUMAN GEOGRAPHY, WINTER****4(4-0)**

Broad approach to human geography that deals with fundamental relationship of humans to land-why people live where they do and as they do. Proposes that each society interprets earth and humans from viewpoint of its particular culture. Cultural factors studied with examples from modern societies.

*Prerequisites:* E, R



## **102 ELEMENTS OF PHYSICAL GEOGRAPHY**

### **FALL, SPRING**

**4(3-2)**

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)**

### **101 DIGITAL STUDIO I, FALL, SPRING**

**3 (2 - 4)**

This course focuses on developing the skills necessary for producing print-ready communications: graphic design principles, visual comps, print production development, project management skills (e.g. interviewing and scheduling, peer review and revision). Project activities focus on developing effective communications that can be deployed in print, on the web, or in a video. Students develop a variety of graphics, a logo, a business card, and a client advertisement. Students produce supporting design documents and visual comps that clients review. The semester culminates with a portfolio project during which students reflect on the skills and topics covered thus far and begin to explore the career areas that interest them in design.

*Prerequisites:* E, M, R

### **110 INTRODUCTION TO GRAPHIC DESIGN**

#### **FALL, SPRING**

**FEE, 3 (2-4)**

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 PHOTOGRAPHY II, FALL, SPRING**

**FEE, 3 (2-4)**

Beginning with a basic introduction to black and white photography using chemical methods, the class will then move into digital techniques. Upon completion of this class, students will have a basic knowledge of the chemical darkroom, software for archiving, altering, and storage of digital images, the camera, light metering, lighting and flash use, as well as in-camera, darkroom, and digital image manipulation. This course is a foundation course in the creation, use, and selection of images for advertising and design.

*Prerequisites:* E, M, R

### **131 PHOTOGRAPHY II, SUMMER**

**FEE, 3 (2 - 4)**

Students explore the materials, techniques, processes, and ideas of advanced experimental photography using film (Silverprints, infrared, photo silk screen,) advanced lighting, and digital techniques (complex image manipulation, working across multiple programs and media). Previous relevant experience can serve as course prerequisites with permission of the instructor.

*Prerequisites:* E, M, R, GRDN 101 Digital Studio with a C or better and GRDN 130 Photography I with a C or better

## **140 PRODUCTION SKILLS FOR GRAPHIC DESIGN**

### **SPRING**

**FEE, 3 (2-4)**

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 efficiently within the production process and on budget while employing original thought.

*Prerequisites:* E, R, GRDN 101, GRDN 110 or instructor's consent

### **200 PRINCIPLES OF TYPOGRAPHY, FALL**

**FEE, 3 (2-4)**

This course is an introductory study to the typographic arts from the invention of writing to the advent of the computer age. It infuses an understanding of the historical and sociological pressures driving the development of written language with practical exercises. Emphasis will be placed initially on understanding type as an abstract design element. Once mastered, this principle will be used to communicate more complex ideas and compositions in real-world applications. Previous relevant experience can serve as course prerequisites with permission of the instructor.

*Prerequisites:* E, M, R, GRDN 101 with a C or better and ART 109 with a C or better

### **201 TYPOGRAPHY II, SPRING**

**FEE, 3 (2-4)**

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 DIGITAL STUDIO II, SPRING**

**FEE, 3 (2 - 4)**

This class builds on the design and development skills of Digital Studio I by focusing on longer projects as well as more in-depth content and advanced computer techniques. Students continue to work in teams producing communications such as: brochures, newsletters, annual reports. They develop graphic and print production skills that solve specific communication challenges for clients and audiences. They build technical skills to address project needs and track complex projects. Students culminate with a portfolio redesign using themselves as the client and their next step as designers determining the audience. Although not required, it is suggested students complete or take concurrently GRDN 130 and GRDN 200. Previous relevant experience can serve as course prerequisites with permission of the instructor.

*Prerequisites:* E, M, R, GRDN 101 Digital Studio I with a C or better and ART 109 Basic Design I with a C or better

### **250 PORTFOLIO, SPRING**

**FEE, 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 HEALTH AND HEALTH OCCUPATIONS

FALL, SPRING

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.

### 165 STANDARD FIRST AID AND PERSONAL SAFETY

FALL, SPRING

FEE, 2(2-0)

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.

*Prerequisites:* None

### 166 CPR/AED, FALL, SPRING, SUMMER

FEE, 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 religions: Judaism, 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, SPRING

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 17th and 18th centuries. Explores impact of two upheavals, French Revolution and Industrial Revolution, on events and ideologies of the 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, SPRING

3(3-0)

United States history from the colonial period through Reconstruction. Topics include process and problems of colonization, difficulties encountered in developing workable political structure, process of democratization, socio-economic change, territorial expansion, rivalries leading to the Civil War, and the impact of the war. Special attention is paid to modern legacy from America's past.

*Prerequisites:* E, R

### 202 AMERICAN HISTORY, FALL, SPRING

3(3-0)

United States history from the Reconstruction to the present. Topics include conquest of the West, industrialization and its impact, various movements to reform America and the increasingly important role this country plays in the international community. Special attention is paid to the modern legacy from America's past.

*Prerequisites:* E, R

### 204 MODERN EAST ASIA, FALL

3(3-0)

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

### 205 AFRICAN AMERICAN HISTORY

3(3-0)

Reviews theories surrounding early presence of black Africans in ancient America. Presents an overview of the developments that led to the African slave trade and slave systems in North and South America. Challenges, contributions and culture of African Americans in North America from pre-Revolution to post-World War I are included.

*Prerequisites:* E, R

### 208 NON-WESTERN WORLD: LATIN AMERICA (ON DEMAND)

3(3-0)

Latin America's history from pre-Columbian roots to contemporary patterns. Topics include Colonial Era discoveries, conquests and traits of Spanish colonization, problems common to Latin American republics including social and economic inequalities, recurrent revolutions, and relations between U.S. and Hispanic world.

*Prerequisites:* E, R

### 209 WOMEN IN THE WESTERN WORLD, SPRING

3(3-0)

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 constraints 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 SPRING

3(3-0)

The history of the United States Civil War and Reconstruction 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 21st-century America.

*Prerequisites:* E, R

# HONORS (HONR)

## 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

## 111 HONORS PRINCIPLES OF BIOLOGY I, FALL FEE 4(3-2)

Emphasizes molecular biology, cell chemistry, cell structure and function, physiology, growth and development 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 or HONR 101 (or recommend 2 yrs of high school biology, or one year of high school biology and one year of chemistry).

## 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.

*Prerequisites:* E, R

## 141 HONORS NATIONAL GOVERNMENT FALL, SPRING 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.

*Prerequisites:* E, R

## 143 HONORS STATE GOVERNMENT, FALL, SPRING 3(3-0)

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

## 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 MATH 151 or previous successful completion of MATH 151. R, MATH 128 and MATH 130 with a C or better, or MATH 135 with C or better or associated placement score(s).

## 203 HONORS HUMAN DEVELOPMENT

### FALL, SPRING 3(3-0)

Physical, cognitive, social and emotional development from conception through death. Emphasis upon factors influencing development of personality.

*Prerequisites:* E, R, PSYC 201 or HONR 121 with a C or better

## 204 HONORS MASTERPIECES OF ENGLISH LITERATURE II ALTERNATE YEARS 3(3-0)

Study 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 values, and how they represent their times.

*Prerequisites:* E, R

## 214 HONORS AMERICAN HISTORY, FALL, SPRING 3(3-0)

United States history from colonial period through Civil War. Topics include process and problems of colonization, factors promoting independence, difficulties encountered in developing workable political structure, process of democratization, socio-economic change, territorial expansion and rivalries leading to civil war. Special attention paid to modern legacy from America's past.

*Prerequisites:* E, R

## 215 HONORS AMERICAN HISTORY, FALL, SPRING 3(3-0)

United States history from Civil War to present. Topics include Reconstruction, conquest of West, industrialization and its impact, various movements to reform America and increasingly important role this country plays in the international community. Special attention paid to modern legacy from America's past.

*Prerequisites:* E, R

## 231 HONORS ABNORMAL PSYCHOLOGY FALL, SPRING 3(3-0)

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.

*Prerequisites:* E, R, PSYC 201, or HONR 121 with a C or better

## 241 HONORS COLLOQUIUM, FALL, SPRING 1(1-0)

The Honors Colloquium, offered every fall and spring 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 I 3(3-0)

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.

*Prerequisites:* E

## 251 HONORS ENGLISH COMPOSITION II 3(3-0)

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 a broad range of source material.

**256 HONORS CREATIVE WRITING, FALL, SPRING 3(3-0)**

Imaginative writing, i.e., writing in 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 four genres.

*Prerequisites:* E, R

**258 HONORS LITERARY INTERPRETATION, SPRING 3(3-0)**

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, HONR 250 or ENGL 101

## HOSPITALITY MANAGEMENT (HOSP)

**110 SANITATION, FALL, SPRING 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 FALL, SPRING 1(1-0)**

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.

*Prerequisites:* E, R

**113 NUTRITION AND DIET THERAPY SPRING, SUMMER, FALL 3(3-0)**

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 3(3-0)**

Course provides awareness of rights and responsibilities that law grants or imposes in the hospitality industry.

*Prerequisites:* E, R

**117 INTRODUCTION TO MEETINGS AND EVENTS SPRING 3 (3-0)**

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

**120 PROFESSIONAL COOKING I FEE 2(1-3)**

This course is designed to give the student an introduction to the professional kitchen and preparation techniques. The student will gain competency in knife skills, food safety practices, fiber component of vegetables, selection and USDA grades of meat, poultry and seafood and their composition, structure and classification, factors affecting tenderness, storage and cooking techniques.

*Prerequisites:* E, M, R

**130 TABLE SERVICE 3(3-0)**

This course introduces the student to modern food and beverage service. Classroom lectures focus on the basic beverage techniques, service language and equipment used in the service of modern buffet service. Sanitation, safety, personal hygiene and grooming are emphasized. Table arrangements and setups are taught along with organization and responsibilities of staff within the dining room. Proper dress and service techniques are emphasized.

*Prerequisites:* E, M, R

**150 INTRODUCTION TO HOSPITALITY CAREERS FALL, SPRING 3(3-0)**

Covers career opportunities in restaurants, hotels, institutional feeding, travel and tourism, and hospitality management for those considering the hospitality industry as a career.

*Prerequisites:* E, R

**153 NUTRITION, FALL 3(3-0)**

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, SPRING, SUMMER 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 campus class time.

*Prerequisites:* E, M, R, HOSP 110, HOSP 115, HOSP 150, HOSP 252, students must meet with coordinator prior to enrollment

**201 RESTAURANT OPERATIONS, SPRING 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 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.

*Prerequisites:* E, M, R

**220 PROFESSIONAL COOKING II FEE 2(1-3)**

This course reinforces knowledge and skills achieved in Introduction to Professional Cookery and helps the student build confidence in techniques of advanced cookery while cooking from menus that exemplify American and regional cuisines. Students participate in food preparation at an advanced level, and attention is given to portion control, plate presentation and team work.

*Prerequisites:* E, M, R, HOSP1 20 with a C or better

**250 FOOD PREPARATION SKILLS, SPRING FEE, 2(0-4)**

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 3(3-0)**

Marketing mix related to hospitality service sector. Students learn why marketing is a hot topic in the hospitality industry. Implementation of marketing concept in competitive climate in the hospitality industry is essential to a successful student.

*Prerequisites:* E, M, R

**252 SUPERVISORY SKILLS AND HUMAN RELATIONS FALL 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, SPRING 3(3-0)**

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, SPRING 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:* E, M, R, HOSP 150

**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 BEVERAGE MANAGEMENT FEE, 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.

**280 GARDE MANGER FEE 2(1-3)**

This course provides the student with a foundation in Garde Manger including history, ingredients, procedures, culinary terms and equipment. Emphasis is placed on eye appeal, texture, color contrast, artistic touch, harmony of combinations, taste, as well as the processing, production and storage of ingredients. Ice carvings, salt dough pieces and mirrors for buffets may be used, and professional competition skills are presented. Speed, timing and teamwork are emphasized in this course.

*Prerequisites:* E, M, R, HOSP 120 with a grade of C or better

**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 post-trip evaluation such as written assignment, journal or test.

**201 INTRO TO THE ARTS, FALL, 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 3(3-0)**

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 3(3-0)**

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, SPRING 3(3-0)**

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 3(3-0)**

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 Judeo-Christian 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, SPRING****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, SPRING****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 are 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 post-trip written assignment, test or other means of evaluation.

## **INDUSTRIAL MAINTENANCE TECHNOLOGY (INMT)**

**109 INTRO TO WELDING, FALL, SPRING****FEE, 2(1-2)**

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: None*

**110 MIG/TIG WELDING, FALL, SPRING****FEE, 3(2-2)**

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: None*

**120 BASIC HVAC, FALL, SPRING****3(2-2)**

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, SPRING****FEE, 2(1-2)**

Basic 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****FEE, 2(1-2)**

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*

**206 HYDRAULIC AND PNEUMATIC CIRCUITRY  
SPRING****FEE, 2(1-2)**

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*

**240 PREDICTIVE AND PREVENTIVE MAINTENANCE  
FALL, SPRING****FEE, 3(2-2)**

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 204*

## **LAW ENFORCEMENT (LAWE)**

**140 INTRODUCTION TO CRIMINAL JUSTICE****FALL, SPRING****3(3-0)**

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, SPRING****3(3-0)**

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, SPRING****3(3-0)**

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, SPRING****3(3-0)**

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  
SPRING****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, SPRING****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.*

## LOGISTICS (LOGI)

**101 INTRODUCTION TO LOGISTICS, FALL, SPRING 3(3-0)**

This is an introductory course. It will explain why logistics is important in everyday living. The course will provide an overview of five subsectors of logistics: rules and regulations, domestic transportation, warehouse, inventory, and purchasing.

*Prerequisites: None*

**102 WAREHOUSE AND DISTRIBUTION, FALL, SPRING 3(3-0)**

This course offers the student an understanding of warehouse and distribution processes including: receiving, storage, picking, packing, loading, and shipping. Students will identify potential hazards within the warehouse and distribution workplace and be able to demonstrate safe work practices. Students will be able to document processes associated with warehouse and distribution and provide an explanation of how technology improves these processes.

*Prerequisites: E, M, R and LOGI 101*

**103 TRAFFIC AND TRANSPORTATION, FALL, SPRING 3(3-0)**

This course will compare and contrast modes of transportation. Commercial, third party, private and expedited logistics will be discussed. Students will develop critical thinking and reasoning skills as well as decision making techniques. For a given product, the student will be able to describe the most appropriate mode of transportation for product-specific requirements and other requirements such as time, temperature, size, and value. Students will be able to describe emergency contingent planning for spills, power outages, etc. Site visits and guest speakers will provide students with an introduction to current and emerging career opportunities specific to traffic and transportation.

*Prerequisite: LOGI 101*

**104 RULES AND REGULATIONS, SUMMER 3(3-0)**

This course will present an overview of the local, state, and federal regulations that apply to the storage, transporting, and delivery of goods. Requirements for the movement of goods internationally will also be discussed. A capstone project or paper on a topic approved by the instructor that demonstrates the student's understanding of logistics will be required.

*Prerequisites: LOGI 101*

**105 LOGISTICS TECHNOLOGY, SPRING, SUMMER 3(3-0)**

This course will cover the context of electronic commerce/electronic business and enterprise resource planning (ERP) software. Supply chain software, Electronic Data Interchange (EDI), and customer relationship/sales software use in the logistics industry will be explored. Inputs to logistics functions will be examined, including Radio-Frequency Identification (RFID), bar coding, pick-by-voice, etc. Analytics will be performed primarily using Excel spreadsheets, although students will have exposure to other software. Students will practice using the software used by selected logistics companies.

*Prerequisites: LOGI 101*

**205 LOGISTICS FIELD EXPERIENCE, SUMMER FEE 2(0-30)**

This 30 hour field experience is a planned work activity that is designed to introduce the student to the primary areas of logistics in shipping and warehousing. During the field experience, students will have introductory instruction in general logistics operations. They will rotate through the departments at the companies where they are assigned to observe work activities.

*Prerequisites: LOGI 101*

## MACHINE TOOL TECHNOLOGY (MACH)

**110 MACHINE TOOL I, FALL, SPRING FEE, 3(1-4)**

Introductory course includes theory, demonstrations, and shop experience. Basics in safety, blueprint reading, layout, band sawing, machine setup, lathe work, milling machine work, and surface grinding. Machine theory and machine application comply with National Institute for Metalworking Skills (NIMS) Level I Machining Skill Standards.

*Prerequisites: None*

**120 MACHINE TOOL II, FALL, SPRING FEE, 3(1-4)**

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.

*Prerequisites: MACH 110*

**129 USE OF MACHINERY'S HANDBOOK, FALL 2(2-0)**

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*

**130 PRECISION INSPECTION, FALL, SPRING 3(3-1)**

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*

**140 INTRODUCTION TO NUMERICAL CONTROL (NC) COMPUTER NUMERICAL CONTROL (CNC)****FALL, SPRING FEE, 2(1-2)**

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*

**150 INTRODUCTION TO CAM FALL, SPRING, SUMMER****FEE, 2(1-2)**

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*

**220 PRESSWORKING OF METALS/MOLD MAKING  
SPRING****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, MACH 110, ENGR 103, DRAF 102

**231 CMM FUNDAMENTALS, FALL, SPRING****2(1-2)**

Advanced course that focuses on the usage of a Coordinate Measuring Machine and its impact on industry.

*Prerequisites:* M, R, MACH 130

**241 CNC PROGRAMMING I  
FALL, SPRING, SUMMER****FEE, 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, MACH 140

**242 CNC PROGRAMMING II, FALL, SPRING****FEE, 2(1-2)**

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 advanced programming skills. Students will employ special advanced 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

**251 2D/3D MACHINING  
FALL, SPRING, SUMMER****FEE, 2(1-2)**

Advanced course with a focus on CAM concepts such as surface and 3D machining.

*Prerequisites:* M, R, MACH 150

## **MAGNETIC RESONANCE IMAGING (MRIT)**

**100 PRECLINICAL PREPARATION, SUMMER****FEE 3(3-0)**

Students will explore and discuss the importance of MRI safety and patient assessment. The ability to critically think will be emphasized as students investigate various patient-related considerations requiring adaptation to successfully complete the MRI procedure. Basic pharmacology as it relates to the MRI patient will be discussed, as will infection control. Students will be introduced to MRI equipment, quality control, and MRI procedures.

*Prerequisites:* E, M, R, qualified medical imaging licensure or acceptance into the MRI Program

**101 PROFESSIONAL PROSPECTUS, SUMMER****1(1-0)**

This course will explore the integration of magnetic resonance imaging within the health care system. Students will explore the organizations and agencies that drive continual development of the MRI technologist's role and responsibilities. The course also focuses on legal and ethical implications as well as effective communication methods used to provide quality patient care and to reduce risk.

*Prerequisites:* E, M, R, qualified medical imaging licensure or acceptance into the MRI Program

**102 MRI PROCEDURES AND PATHOPHYSIOLOGY  
FALL****3(3-0)**

Provides an overview of imaging techniques related to the central nervous system and the musculoskeletal system. Specific clinical applications, coils available and their use, considerations in scan sequences, specific choices in the protocols, and positioning criteria are practiced. Anatomical structures and the plane that best demonstrates anatomy will be discussed as well as signal characteristics of normal and abnormal structures.

*Prerequisites:* E, M, R, MRIT 100 and MRIT 101, with a C or better

**103 MRI PHYSICS I, FALL****3(3-0)**

The first in a two-semester course that will cover the basic principles of MRI, data acquisition, and tissue characteristics (proton spin, relaxation times, phasing and de-phasing) in image formation.

*Prerequisites:* E, M, R, MRIT 100 and MRIT 101, with a C or better

**105 CLINICAL EXPERIENCE I, FALL****FEE 3(0-24)**

The first of a three semester sequence scanning clinical experience. Head and neck techniques will be applied as well as additional time spent on spine and extremity work.

*Prerequisites:* E, M, R, MRIT 100 and MRIT 101, with a C or better

**106 MRI PROCEDURES & PATHOPHYSIOLOGY II  
SPRING****3(3-0)**

Provides an overview of imaging techniques related to the thorax/abdomen, special imaging techniques (functional MRI, spectroscopy, DWI, heart) and breast. Specific clinical applications, coils available and their use, considerations in scan sequences, specific choices in the protocols, and positioning criteria are practiced. Thoracic and abdominal anatomical structures and the plane that best demonstrates anatomy will be discussed as well as signal characteristics of normal and abnormal structures.

*Prerequisites:* E, M, R, MRIT 102, MRIT 103, MRIT 105 and MRIT 114, with a C or better

**107 MRI PHYSICS II, SPRING****3(3-0)**

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, MRIT 102, MRIT 103, MRIT 105 and MRIT 114, with a C or better

**108 MRI IMAGE ANALYSIS, SUMMER****3(3-0)**

Case study analysis and student image portfolios will be utilized to evaluate for optimal diagnostic value. Critical assessment will include principles of quality image formation, identification of anatomy, identification of pathology, and parameter adjustments needed for differential diagnosis. Additional discussion will focus quality control procedures, PACS image display, image post processing, and image archiving.

*Prerequisites:* E, M, R, MRIT 106, MRIT 107, MRIT 109 and MRIT 115, with a C or better



**109 CLINICAL EXPERIENCE II, SPRING FEE, 3(0-24)**

The second of a three-semester sequence of clinical application. Neurological and extremity competency work will continue as well as introductory experience in thoracic and abdominal scanning.  
*Prerequisites:* E, M, R, MRIT 102, MRIT 103, MRIT 105 and MRIT 114, with a C or better

**111 CLINICAL EXPERIENCE III, SUMMER FEE, 3(0-24)**

The third in a three-semester sequence of clinical application. Neurological, extremity, thoracic and abdominal scanning will continue. Additional experiences will include breast MR and advanced scanning applications such as cardiac, functional and spectroscopy MR.  
*Prerequisites:* E, M, R, MRIT 106, MRIT 107, MRIT 109, MRIT 115 with a C or better

**113 MRI REGISTRY REVIEW, SUMMER 3(3-0)**

This course provides the student with instructional review and a self examination process as preparation for the certification exam in Magnetic Resonance Imaging.  
*Prerequisites:* E, M, R, MRIT 106, MRIT 107, MRIT 109, MRIT 115, with a C or better

**114 APPLIED SECTIONAL ANATOMY, FALL 3(3-0)**

Provides an overview of transverse, coronal, and sagittal sectional anatomy of the human body. Special emphasis is placed on a study of the head and brain, thorax, abdomen, and pelvis. The shoulder, elbow, hip and knee are also examined. Correlations between cadaver cross-sections, MRIs, CTs, and radiographs are explored.  
*Prerequisites:* E, M, R, MRIT 100 and MRIT 101 with a C or better

**115 COMPUTER APPLICATIONS IN MEDICAL IMAGING SPRING 3(3-0)**

Computer applications in the radiologic sciences related to image capture, display, storage and distribution. Specific to MR, the content imparts an understanding of the components, principles and operation of digital imaging systems, image data management and data manipulation. Additional content provides basic concepts of patient information management including medical records concerns and privacy and regulatory issues.  
*Prerequisites:* E, M, R, MRIT 102, MRIT 103, MRIT 105, MRIT 114 with a C or better

## MANUFACTURING TECHNOLOGY (MANU)

**111 MANUFACTURING PROCESSES I, FALL, SPRING 3(2-2)**

Introductory course includes historical perspective of manufacturing, materials processing, product development, material selection and business principles and functions as related to manufacturing. May be offered in alternate formats.  
*Prerequisites:* M, R

**112 INTRODUCTION TO FABRICATION FALL, SPRING, SUMMER FEE, 4(2-2)**

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, SPRING 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, SPRING 1(1-0)**

Types of robots, axis designation, application, terminology, drive systems and control systems as related to industrial robots.  
*Prerequisite:* R

**215 FAB LAB I, FALL, SPRING, SUMMER FEE, 4(2-2)**

Students will develop science and engineering skills by having hands-on access to high-tech manufacturing processes, specialized embedded software, computer-aided design software, and mechanical subsystems. The Fab Lab will provide applied technical opportunities in an industry that is continuously changing and redefining itself.  
*Prerequisites:* MANU 112

**221 COMPETITIVE ROBOTICS PRACTICUM 4(2-2)**

This course provides the 180 hours of build time required to design, assemble, prepare and test a competition-ready robot. Course will include programmable controllers, construction, computer programming, and machine design. This class meets intensely for several weeks and team building and problem solving are essential.  
*Prerequisites:* None

**251 COMPETITIVE ROBOTICS SEMINAR, FALL FEE, 4(2-4)**

This course provides the theory and background preparation for entry into a robotics competition. Students will focus on the design, programming, engineering, and building techniques in robot design. In preparation the team will market and develop funds for the competition, research competition and competitor statistics, and work cohesively to gain a broad understanding of robotics concepts.  
*Prerequisites:* None

## MATHEMATICS (MATH)

*NOTE: \*This is a transitional course, college credit not received. 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, SPRING, SUMMER**

Mini-courses are designed to provide remedial or review work for students with deficiencies in specific areas of basic math. Units of Pre-Algebra (090) are paired in a variety of combinations to serve as one-credit mini-courses.

The materials covered are as follows:

**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.

( Must have Math lab permission slip)

066 Fractions and Decimals 1(1-0)

067 Fractions, Ratio and Proportion 1(1-0)

068 Fractions and Percent 1(1-0)

071 Decimals, Ratio and Proportion 1(1-0)

072 Decimals and Percent 1(1-0)

075 Ratio, Proportion and Percent 1(1-0)

**\*090 PRE-ALGEBRA, FALL, SPRING, SUMMER 4(4-0)**

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 the next unit. 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 INTRODUCTORY ALGEBRA FALL, SPRING, SUMMER 4(4-0)**

The 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.

*Prerequisites:* M, R or may be taken concurrently with READ 084

**100 APPLIED MATHEMATICS, FALL 4(4-0)**

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.

*Prerequisites:* M, R

**110 TECHNICAL MATHEMATICS I, SPRING 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, SPRING, SUMMER 4(4-0)**

Provides 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, SPRING, SUMMER 4(4-0)**

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)

**129 FINITE MATHEMATICS, FALL, SPRING 4(4-0)**

Finite Mathematics is designed to give business, economics, management, life science, and social science students a firm background in finite math. Topics include: Linear Functions; Mathematical Modeling of Linear Functions; Polynomial Functions (quadratic, cubic); Exponential and Logarithmic Functions; Inequalities; Mathematics of Finance; Counting Principles, Linear Programming; Linear Programming using Simplex Method and Revised Simplex Method; Systems of Linear Equations and Matrices; Measures of Central Tendency; Measures of Dispersion; Graphing Statistical Data; Simple Probability - including Independent Events, Mutually Exclusive Events, Conditional Probabilities; Series and Sequences.

*Prerequisites:* R, MATH 122 with C or better

**130 PRE-CALCULUS TRIGONOMETRY, FALL, SPRING 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 take 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 PRE-CALCULUS ALGEBRA/TRIG, FALL, SPRING 5(5-0)**

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, SPRING 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 SPRING 4(4-0)**

For students preparing to teach grades 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, SPRING 5(5-0)**

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 5(5-0)**

Calculus with multiple independent variables. Topics include three-dimensional 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 4(4-0)**

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 to 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, SPRING 3(3-0)**

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, SPRING 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, or MATH 202 with C or better*

**265 PROBABILITY AND STATISTICS FOR ELEMENTARY/MIDDLE SCHOOL TEACHERS, SPRING 4 (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 to Western Michigan University's elementary education program and may not transfer to other institutions.

*Prerequisites: R, MATH 200 with C or better*

**MUSIC (MUSI)**

**\*\*All music courses involve required concert attendance.**

**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**

**(private music instruction)**

**ARE OFFERED FALL AND SPRING**

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:

\*May be repeated three times for credit

A	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: MUSI 115)	FEE, 1(0-.5)
B	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)
C	*Beginning Classical Guitar	FEE, 1(0-.5)
	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 are required to perform to 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 are required to perform for a jury:

\*May be repeated three times for credit

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)

#### ENSEMBLES:

##### **101 CONCERT CHOIR, FALL, SPRING 2(0-4)**

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, SPRING 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, SPRING 1(0-2)**

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.

##### **107 STRING ENSEMBLE 1(2-0)**

This group performs string music of various periods and combinations. Open to all students by audition. May be repeated for credit.

##### **108 SHOW CHOIR, FALL, SPRING 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, 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 a brief look at jazz. For non-Music majors. *Prerequisites: E, R*

##### **110 INTRODUCTION TO MUSIC THEORY (ON DEMAND) 2(2-0)**

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, SPRING 2(2-0)**

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, SPRING 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, SPRING 2(2-0)**

Continuation of Piano Class I, with emphasis on increased keyboard facility through technical study, acquisition of simple repertoire, harmonization and transposition.

*Prerequisite: MUSI 114*

##### **117 SYMPHONIC WIND ENSEMBLE, FALL, SPRING 1(2-0)**

This group performs regular public concerts. It performs the best in wind ensemble music, with particular emphasis on compositions expressly for the wind and percussion instrument medium. May be repeated for credit.

*Prerequisites: None*

##### **118 INTRODUCTION TO MUSIC TECHNOLOGY SPRING 2 (1-1)**

This is an introduction to the use of computer in music and multimedia production including Musical Instrument Digital Interface (MIDI), sequencing, audio recording, and synthesis. Transferability of this course is not guaranteed.

*Prerequisites: E, R*

##### **162 BASIC MUSIC I 3(3-0)**

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 better*

*Corequisite: MUSI 114 and MUSI 164*

##### **163 BASIC MUSIC II 3(3-0)**

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, and MATH 095 with a grade of C or better*

*Corequisite: MUSI 115 and MUSI 165*

**164 AURAL COMPREHENSION I 1(0-2)**

Sight-reading, prepared performance and improvisation of melodies using solfège 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 1(0-2)**

A continuation of MUSI 164. Sight-reading, prepared performance and improvisation of melodies using solfège 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 C 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 reading. The student will be required to have access to a Classical or Folk type guitar.

**186 GUITAR CLASS II 1(1-0)**

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, SPRING 3(3-0)**

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, SPRING 2(0-2)**

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.

**200 MUSIC FOR THE ELEMENTARY TEACHER FALL, SPRING 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 3(3-0)**

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, SPRING 3(3-0)**

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 3(3-0)**

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 better

*Corequisite:* MUSI 264

**263 BASIC MUSIC IV 3(3-0)**

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 better

*Corequisite:* MUSI 265

**264 AURAL COMPREHENSION III 1(0-2)**

A continuation of MUSI 165. Sight-reading, prepared performance and improvisation of melodies using solfège 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 better

*Corequisite:* MUSI 262

**265 AURAL COMPREHENSION IV 1(0-2)**

A continuation of MUSI 264. Sight-reading, prepared performance and improvisation of melodies using solfège 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 better

*Corequisite:* MUSI 263

**NATURAL SCIENCE (SCIE)**

*NOTE: \*This is a transitional course, college credit not received.*

*Courses that have identification numbers below 100 do not count toward total credit hours needed to earn a certificate or associate degree.*

**\*095 FUNDAMENTALS OF SCIENCE REASONING FALL, 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)

## 130 PHARMACOLOGY I, FALL

2(2-0)

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, READ 110, BIOL 205, CIS 102, CHEM 104, and acceptance into the nursing program or permission of instructor/director

## 135 PHARMACOLOGY II, SPRING

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 lifespan.

*Prerequisites:* E, M, R, READ 110, BIOL 205, BIOL 206, CIS 102, CHEM 104, ENGL 101, PSYC 201, NURS 130, NURS 180, and acceptance into the nursing program or permission of instructor/director

## 180 NURSING FUNDAMENTALS, FALL

FEE, 6(3-9)

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, READ 110, BIOL 205, CIS 102, CHEM 104, and acceptance into the nursing program or permission of instructor/director

## 185 WOMEN'S HEALTH, SPRING

FEE, 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 104, ENGL 101, PSYC 201, PSYC 203 (may take currently), NURS 130, NURS 180, and acceptance into the nursing program or permission of instructor/director

## 186 MEDICAL-SURGICAL NURSING I SPRING

FEE, 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 lifespan 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 104, ENGL 101, PSYC 201, NURS 130, NURS 180, and acceptance into the nursing program or permission of instructor/director

## 187 MEDICAL-SURGICAL NURSING II SPRING

FEE, 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 104, ENGL 101, PSYC 201, NURS 130, NURS 180, and acceptance into the nursing program or permission of instructor/director

## 190 CHILD NURSING, SPRING

3(2-3)

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 they apply the theory gained from nursing and other related courses.

*Prerequisites:* E, M, R, READ 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/director

## 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 104; 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/director

**192 ADVANCED MEDICAL-SURGICAL NURSING  
SUMMER****5(2-9)**

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 104, 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/director

**280 COMMUNITY MENTAL HEALTH, FALL FEE, 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 104, 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/director

**281 MEDICAL-SURGICAL NURSING III, FALL FEE, 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, READ 110, CIS 102, CHEM 104, 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/director

**282 MEDICAL-SURGICAL NURSING IV, FALL FEE, 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 104, 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/director

**285 CHILDREN'S HEALTH, SPRING FEE, 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 104, 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/director

**286 MEDICAL-SURGICAL NURSING V  
SPRING****FEE, 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 104, 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/director

**287 MEDICAL-SURGICAL NURSING VI  
SPRING****FEE, 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 104, 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/director

**288 CURRENT ISSUES IN NURSING, SPRING, 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 104, BIOL 205, BIOL 206, ENGL 101, ENGL 102, PSYC 201, PSYC 203, NURS 130, NURS 135, NURS 180, NURS 185, NURS 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/director

## OFFICE INFORMATION SYSTEMS (OIS)

**101 KEYBOARDING I, FALL, SPRING, SUMMER 2(0-2)**

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, SPRING, SUMMER 2(0-2)**

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, SPRING, SUMMER 2(0-2)**

Concentrates on using a computer software 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

**104 PROOFREADING & EDITING, FALL, SPRING 2(2-0)**

Proofreading and editing is designed to elevate the editing and proofreading proficiency of students so that they are able to prepare professional written communications. Emphasis is on recognition of inaccuracies (grammar, usage, mechanics, punctuation) and searching and applying reference sources efficiently. Working knowledge of Microsoft Word is strongly recommended.

*Prerequisites:* E, M, R

**114 COMPUTER APPLICATIONS I FALL, SPRING, SUMMER 3(3-0)**

Students will use Microsoft Office applications to produce letters, memos, manuscripts, tables, databases, presentations, and other executive communications. Course includes development of greater speed and accuracy on computer keyboarding. Basic computer skills and typing speed of 40 net words per minute strongly recommended.

*Prerequisites:* M, R

**125 RECORDS MANAGEMENT, FALL, SPRING 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 COMPUTER APPLICATIONS II FALL, SPRING, SUMMER 3(3-0)**

Further development in the Microsoft Office applications to produce professional documents, tables, charts, databases, and presentations are the primary emphasis of this class. Course includes increased development of speed and accuracy on computer keyboarding. Typing speed of 50 net words per minute is strongly recommended.

*Prerequisites:* M, R, OIS 114

**205 INTEGRATED BUSINESS PROJECTS FALL, SPRING 4(4-0)**

Students will develop problem-solving abilities while applying advanced software skills to real-world situations by creating enhanced and integrated business documents. Students learn how data can be used, analyzed, and synthesized in a business situation. Strong working knowledge of Microsoft Word, Excel, Access, and PowerPoint is required.

*Prerequisites:* E, M, R, OIS 201

**211 OFFICE PROCEDURES, FALL, SPRING 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

**219 LEGAL OFFICE PROCEDURES SPRING (ODD YEARS) 3(3-0)**

Concentrates 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 SPRING (EVEN YEARS) 3(3-0)**

Concentrates 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, SPRING 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, SPRING 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 (PARA)****101 ADVANCED EMT I, FALL FEE, 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 that 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, acceptance into program

**102 ADVANCED EMT LAB I, FALL FEE, 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, acceptance into program

**103 ADVANCED EMT CLINICAL I, FALL FEE, 1(0-4)**

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, acceptance into program.

**104 ADVANCED EMT HUMAN BODY FALL, SPRING FEE, 4(3-2)**

This course is designed to provide the paramedic student with the necessary knowledge of the human body. The student will focus on the structure and function of the body under normal conditions starting at the basic cellular foundation to complex body systems. The paramedic student will also explore the function of the body under abnormal situations and how the body works to maintain and compensate under times of distress. This course is a hybrid course between classroom and online study.

*Prerequisites:* E, M, R and program approval.

**201 ADVANCED EMT II, SPRING FEE, 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, PARA 101, 102 and 103

**202 ADVANCED EMT LAB II, SPRING FEE, 3(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 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 interpretation, and pharmacological intervention.

*Prerequisites:* vE, M, R, PARA 101, 102, 103

**203 ADVANCED EMT CLINICAL II, SPRING FEE, 2(0-8)**

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, SPRING FEE, 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 FEE, 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 FEE, 2(0-4)**

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, PARA 201, 202, 203

## **223 ADVANCED EMT CLINICAL III**

### **SPRING, SUMMER**

**FEE, 3(0-3)**

Clinical experience 3 is designed to put an emphasis on the paramedic student functioning as a paramedic under the direct supervision of a 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, PARA 201, 202, 203

## **224 PEPP PROVIDER COURSE, SPRING, SUMMER FEE, 1(1-1)**

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, PARA 201, 202, 203

## **225 ITLS PROVIDER COURSE, SPRING, SUMMER FEE, 1(1-1)**

This program is a 2-day provider course providing certification in ITLS. This course is 16 hours, emphasizing trauma care and rapid assessment.

*Prerequisites:* E, M, R, PARA 201, 202, 203

## **230 INTERNSHIP, SPRING, SUMMER**

**FEE, 5(0-5)**

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 250-300 hrs. Upon successful completion of this internship, the paramedic student may be eligible for NREMT examination process.

*Prerequisites:* E, M, R, PARA 201, 202, 203

## **PHILOSOPHY (PHIL)**

### **101 INTRODUCTION TO PHILOSOPHY, FALL, SPRING 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, SPRING 3(3-0)**

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 3(3-0)**

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 SPRING**

**3(3-0)**

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)**

NOTE: Only one of the following courses will count towards LMC graduation; PHED 200, 212 or 214.

The general physical education and wellness program series is designed to offer instruction and opportunities to participate in fitness related activity, recreational and lifetime activities, and wellness promotion opportunities.

### **102 INTERMEDIATE VOLLEYBALL 1(0-2)**

For students with experience playing power volleyball. Advanced offenses and defenses. Competitive tournaments run throughout class.

### **105 BOWLING, SPRING FEE, 1(1-1)**

Emphasis will be placed on fundamental skills including footwork, approach, delivery, timing, release, and scoring.

### **106 INTERMEDIATE BOWLING, SPRING FEE, 1(1-1)**

Designed for the bowler who possesses basic techniques. Emphasis will include spare angles, ball drilling, lane maintenance, ball adjustment for strikes, and correction of form.

*Prerequisite:* PHED 105 or equivalent

### **107 GOLF 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 FALL, SPRING, SUMMER 1(0-2)**

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, SPRING, SUMMER 1(0-2)**

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 FALL, SPRING, SUMMER 1(0-2)**

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.

### **128 INTRODUCTION TO SOFTBALL 1(0-2)**

This course will give a basic introduction to the sport of softball as a lifetime team sport. It will include all of the skills necessary to play the sport, such as batting, fielding, catching and throwing. The completion of the course will be tournament held in class.

*Prerequisite:* None

**130 BACKPACKING****1(0-2)**

Fundamental knowledge in areas of wilderness ethics, equipment selection and usage, food selection and preparation, physical conditioning, limited first aid, clothing requirements, camp site selection and maintenance, proper fire consideration and trip organization. Students required to take part in weekend backpacking trip.

**131 BASIC SCUBA****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 airway-restricting condition. Minimum 12 years of age required.

**133 BEGINNING VOLLEYBALL****1(0-2)**

Current rules, history, skill techniques of spike, service, forearm pass, setup, blocking and strategy. Tournaments conducted throughout class.

**134 FUNDAMENTALS OF BASEBALL****1(0-2)**

This class provides basic instruction in the fundamental skills of baseball including hitting, fielding, catching, and throwing. Game-like situations will also be practiced. The student will gain knowledge of the rules of baseball.

*Prerequisites: None*

**145 TOTAL FITNESS I, FALL, SPRING, SUMMER****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, SPRING, SUMMER****1(0-2)**

This class is designed for students who have successfully completed PHED146 Total Fitness I or PHED212 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.

*Prerequisites: PHED 145 or PHED 212*

**200 HEALTHFUL LIVING, FALL, SPRING, SUMMER****1(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, 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, SPRING, SUMMER****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, SPRING****2(2-0)**

Physiological responses to stress and developing techniques for better stress management.

**217 HEALTH ISSUES: SELF-ESTEEM, FALL, SPRING****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 self-esteem 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. Wellness Center for credit or as Community Member.*

## PHYSICAL EDUCATION PROFESSIONAL COURSES (PHED)

The professional program is designed to offer instruction in physical education skills, program, philosophy and administration as a vocation. The following courses are open to those students planning to receive a major or a minor in Physical Education in their bachelor's degree program.

**201 FOUNDATIONS OF PHYSICAL EDUCATION, FALL****3(2-1)**

Orientation to physical education and recreation profession. Emphasis on basic philosophy, principles and interpretation of well-balanced programs. Skills readiness of professional students determined by testing program.

**205 VOLLEYBALL OFFICIATING****1(1-1)**

For male and female students; considers rules, game situations and officiating techniques. Students gain practical knowledge by officiating in organized athletic events.

**209 INTRODUCTION TO COACHING SPORTS, FALL 3(3-0)**

Basic principles and theory of coaching includes State Athletic Handbook, budgets, scheduling, equipment, administration and organization, conditioning, motivation, public relations, team selection, liability, and athletic training.

**210 ATHLETIC TRAINING, SPRING****2(1-2)**

Knowledgeable background and experience in prevention, immediate treatment and rehabilitation of injuries commonly sustained by participants in athletics.

*Prerequisite:* E

**PHYSICAL SCIENCE (PHSC)****101 PHYSICAL SCIENCE: CHEMISTRY AND PHYSICS****FALL, SPRING****FEE, 4(3-2)**

Provides students the opportunity to explore the connections of chemistry and physics as it relates to a variety of occupations. Integrated areas covered include the fundamental principles of light, sound, motion, energy, electricity, magnetism, states of matter, semiconductors, digital imaging, instrumentation components and block diagrams, and scientific conversion/units. This course will require some online work and out-of-class testing.

*Prerequisite:* E, R, and MATH 095 (C. or better), or a College assessment score qualifying for MATH 122 or higher

**104 PHYSICAL GEOLOGY, FALL, SPRING****FEE, 4(3-2)**

Study of geologic processes. Topics include rock and mineral identification, topographic maps, plate tectonics and rock cycle, earthquakes and earth's interior, role of wind and water, glaciation, deserts, mass wasting, shorelines, resources, geologic time and astrogeology. Includes a two hour laboratory experience per week.

*Prerequisites:* E, M, R

**180 PHYSICAL SCIENCE IN ELEMENTARY EDUCATION****FALL, SPRING****FEE, 3 (2-2)**

This is a laboratory-based course specifically designed for perspective elementary teachers. This course will aid students in developing meaningful and functional understanding of key physics concepts and their interrelations.

*Prerequisites:* E, M, R

**190 EARTH SCIENCE FOR ELEMENTARY/MIDDLE SCHOOL****TEACHERS I, FALL****FEE, 3(2-3)**

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

**205 WEATHER AND CLIMATE, SPRING****FEE, 4(3-2)**

This laboratory-based course provides students with the opportunity to investigate the causes and the characteristics of the Earth's weather and climate. Topics covered include: earth-sun relations, oceanic circulation, structure of the atmosphere, heating of the atmosphere and surface, global warming and the greenhouse effect, climate change, stability, moisture, cloud formation, precipitation, air pressure and wind, mid-latitude cyclones, global patterns of wind and precipitation, meteorological maps, severe weather, El Nino and La Nina, fronts and air masses, weather forecasting, and the scientific process. Students are expected to have the ability to use the internet.

*Prerequisites:* E, M, R

**280 PHYSICAL SCIENCE FOR ELEMENTARY TEACHERS II****SPRING****FEE, 3(2-3)**

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, SPRING****FEE, 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****FEE, 5(4-2)**

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, SPRING****FEE, 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, SPRING****FEE, 4(3-2)**

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

**110 TECHNICAL PHYSICS, SPRING FEE, 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 or MATH 110

**201 ENGINEERING PHYSICS I (MECHANICS), FALL FEE, 5(4-2)**

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:* MATH 201

**202 ENGINEERING PHYSICS II (ELECTRICITY AND MAGNETISM), SPRING FEE, 5(4-2)**

Electricity, magnetism and light for Engineering, Mathematics, Physics and Chemistry transfer students. Includes a two hour laboratory experience per week.

*Prerequisite:* PHYS 201

**290 EARTH SCIENCE FOR ELEMENTARY/MIDDLE SCHOOL TEACHERS II FALL 3(2-3)**

A laboratory-based earth science course 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 the geology of Earth. This course will explore the practice of science by emphasizing inquiry-based activities. 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

**POLITICAL SCIENCE (POSC)****101 NATIONAL GOVERNMENT FALL, SPRING, SUMMER 3(3-0)**

Examines 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, SPRING (SUMMER, ON DEMAND) 3(3-0)**

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 SPRING (ODD YEARS) 3(3-0)**

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 SPRING (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) 3(3-0)**

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 HONR 141, POSC 102 or HONR 143, with B or better or instructor permission

**260 INTRODUCTION TO PUBLIC POLICY FALL (ODD YEARS) 3 (3-0)**

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.

*Prerequisite:* POSC 101 or HONR 141, POSC 102 or HONR 143, with B or better or instructor permission

**PSYCHOLOGY (PSYC)****201 INTRODUCTION TO PSYCHOLOGY FALL, SPRING, SUMMER 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 field of Psychology.

*Prerequisites:* E, R

**203 HUMAN DEVELOPMENT, FALL, SPRING 3(3-0)**

Physical, cognitive, social and emotional development from conception through death. Emphasis upon factors influencing development of personality.

*Prerequisites:* E, R, PSYC 201 or HONR 121 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.

*Prerequisites:* E, R, PSYC 201 or HONR 121 with a C or better

**205 INTERPERSONAL RELATIONS, FALL, SPRING 3 (3-0)**

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.

*Prerequisites:* E, R, PSYC 201 or HONR 121

**206 SOCIAL PSYCHOLOGY, SPRING 3(3-0)**

Topics related to social influences on the individual, emphasizing social psychological research.

*Prerequisites:* E, R, PSYC 201 or HONR 121 with a B 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 unconscious processes will be discussed. In-class participation will be strongly encouraged.

*Prerequisites:* E, R

**231 ABNORMAL PSYCHOLOGY, FALL, SPRING 3 (3-0)**

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.

*Prerequisites:* E, R, PSYC 201 or HONR 121 with a C or better

**250 INTRODUCTION TO SOCIAL SCIENCE RESEARCH SPRING 3(3-0)**

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:* E, R, PSYC 201, or HONR 121, OR HONR 141 with a B or better

## RADIOLOGIC TECHNOLOGY (RADT)

**130 INTRODUCTION TO RADIOGRAPHY, FALL 3(3-0)**

Introduction to radiography. Topics covered include historical perspective of radiography, medical ethics, patient care and radiation protection.

*Prerequisites:* E, M, R, acceptance into Radiologic Technology program

**131 RADIOGRAPHIC POSITIONING I, FALL FEE 6(4-4)**

Radiographic positioning nomenclature used in positioning. Radiographic positioning for chest, abdomen, pelvis, upper extremity, lower extremity, and related pathology.

*Prerequisites:* E, M, R, acceptance into Radiologic Technology program

**134 RADIOGRAPHIC PHYSICS, Fall 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, acceptance into Radiologic Technology program

**138 CLINICAL EXPERIENCE I, SPRING FEE 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, RADT 130, RADT 131, RADT 134, all with a grade of C or better

**139 COMMON EQUIPMENT AND PROCEDURES SPRING 4(4-0)**

Investigates common equipment and procedures employed in diagnostic radiology. Topics include radiographic technique, x-ray production, scatter control, direct and indirect digital imaging equipment, fluoroscopy, and film screens.

*Prerequisites:* E, M, R, RADT 130, 131, 134, all with a grade of C or better

**140 RADIOGRAPHIC POSITIONING II, SPRING FEE 3(2-2)**

Routine positioning of thorax, vertebral column, special views of body, and related pathology.

*Prerequisites:* E, M, R, and RADT 130, 131, 134, all with a grade of C or better

**141 CONTRAST STUDIES, SPRING FEE 3(2-2)**

Anatomy and positioning of gastrointestinal, biliary, genitourinary systems, and related pathology.

*Prerequisites:* E, M, R, and RADT 130, 131, 134, all with a grade of C or better

**143 CLINICAL EXPERIENCE II, SUMMER FEE 3(0-24)**

Students continue to refine positioning skills from the first clinical semester; adding to their repertoire with positioning thorax, spine, lower extremity and contrast studies.

*Prerequisites:* E, M, R and RADT 138, 139, 140, 141, all with a grade of C or better

**144 RADIOGRAPHIC POSITIONING III, SUMMER FEE 3(2-2)**

Radiographic positioning of skull, facial bones, and sinuses and related pathology.

*Prerequisites:* E, M, R, RADT 138, 139, 140, 141, all with a grade of C or better

**145 RADIATION PROTECTION AND BIOLOGY SUMMER 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, RADT 138, RADT 139, RADT 140, RADT 141, all with a grade of C or better

**228 COMPUTER APPLICATIONS IN MEDICAL IMAGING 3(3-0)**

Computer applications in the radiologic sciences related to image capture, display, storage and distribution. The content imparts an understanding of the components, principles and operation of digital imaging systems, image data management and data manipulation (postprocessing). Additional content provides basic concepts of patient information management including medical records, management concerns, and privacy and regulatory issues.

*Prerequisites:* E, M, R, RADT 143, 144, 145 all with a grade of C or better

**229 CLINICAL EXPERIENCE III FEE, 4(0-32)**

Supervised clinical practicum with emphasis on further gaining experience in fluoroscopy, portable radiography and trauma radiography. Students will be provided with some opportunities for observation in additional imaging modalities.

*Prerequisites:* E, M, R, RADT 143, 144, 145 all with a grade of C or better

**232 CLINICAL EXPERIENCE IV, SPRING FEE 3(0-24)**

Students participate in a supervised clinical practicum which focuses on assisting transition into professional setting. In addition to diagnostic radiography, rotations may include observations in other imaging modalities.

*Prerequisites: E, M, R, and RADT 228, 229, all with a grade of C or better*

**240 RADIOGRAPHIC QUALITY, SPRING 4(4-0)**

Lecture/lab course covering principles of radiographic image formation, quality assurance tests and technical variables that affect finished radiographs.

*Prerequisites: E, M, R, RADT 228, 229, all with a grade of C or better*

**241 SECTIONAL ANATOMY & MODALITIES SPRING 3(3-0)**

This course provides an overview of transverse, coronal, and sagittal sectional anatomy of the human body. Special emphasis is placed on a study of the head and brain, thorax, abdomen, and pelvis. The shoulder, elbow, hip and knee are also examined. Correlations between sectional CT, MRI, and ultrasound images and radiographs are explored. Other radiographic modalities likely to be encountered in a hospital setting are also introduced.

*Prerequisites: E, M, R, RADT 228, 229 with a grade of C or better*

**READING (READ)**

**NOTE:** \*This is a transitional course, college credit not received. Courses that have identification numbers below 100 do not count toward total credit hours needed to earn 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.

**ADDITIONAL-CREDIT COURSES:****\*081 READING IMPROVEMENT FALL, SPRING, SUMMER FEE 4(3-1)**

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 Center.

*Prerequisites: Compass Reading Score of 0-49*

**\*083 READING STRATEGIES I FALL, SPRING, SUMMER 4(3-1)**

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 Center.

*Prerequisites: Compass Reading of 50-67 or C. or better in READ 081*

**\*087 READING IMPROVEMENT III FALL, 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 principals to reading materials. Computer-assisted instruction occurs in the Reading Center.

*Prerequisites: Compass Reading of 68 or C. or better in READ 083*

**101 STUDY SKILLS, FALL, 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*

**110 MEDICAL TERMINOLOGY VOCABULARY FALL, SPRING 1 (0-2)**

Learn 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*

**SOCIOLOGY (SOC)****101 PRINCIPLES OF SOCIOLOGY FALL, SPRING 3(3-0)**

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, SPRING 3(3-0)**

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, SPRING 3(3-0)**

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, SPRING 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, SPRING, SUMMER****3(3-0)**

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****SPRING****3(3-0)**

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:* SOC 101, with B or better or instructor permission

## TRADE RELATED INSTRUCTION (TRIN)

**105 APPLIED TRIGONOMETRY II, FALL, SPRING****2(2-0)**

Oblique angle trigonometry which incorporates law of sines, cosines, cotangents and right triangles in solving practical shop problems.

*Prerequisite:* M, R, MATH 110 or TRIN 107

**107 APPLIED GEOMETRY/TRIGONOMETRY****FALL, SPRING****4(4-0)**

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

**129 ELECTRICAL CODE STUDY****2(2-0)**

Interpretation and application of State and National Electrical Code.

*Prerequisites:* M, R

**134 METALLURGY AND HEAT TREATMENT****FALL, SPRING****3(3-0)**

Acquaints students with properties of metals and heat treating methods.

*Prerequisite:* M, R

**138 INDUSTRIAL SAFETY, SPRING****1(1-0)**

Safety rules applied to industry. Covers OSHA standards and guidelines.

*Prerequisite:* None

**143 INTRODUCTION TO MOLD MAKING****FALL, SPRING****3(3-0)**

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 plant tours.

*Prerequisites:* M, R

**144 BLUEPRINT READING & SKETCHING****FALL, SPRING****4(3-1)**

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****SPRING****2(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, TRIN 144

**147 INTRODUCTION TO DIE MAKING****FALL****3(3-0)**

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

**156 INDUSTRIAL RIGGING, SUMMER****2(2-0)**

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****2(2-0)**

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)****3(3-0)**

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, R, MACH 110, TRIN 144, TRIN 147



# WELDING (WELD)

## **101 FABRICATION I, FALL, SPRING FEE, 2(2-1)**

Covers punching, shearing, sawing, drilling and cutting. Sub-assembly parts are produced using various equipment. The parts may be joined, by welding, to complete an assembly. Students work in a team environment to complete an assignment.

*Prerequisites: None*

## **102 SHIELDED METAL ARC WELDING I (SMAW) FALL, SPRING FEE, 2(2-1)**

Covers the process commonly known as stick welding. Upon completion of this course, the student will be able to weld in all positions, read some basic weld symbols, and have a basic understanding of written welding procedures.

*Prerequisites: None*

## **103 GAS METAL ARC WELDING I (GMAW) FALL, SPRING FEE, 2(2-1)**

Demonstrates welding on steel sheet metals and plates. Emphasis is placed on axial spray, pulse spray and short circuit mode of transfer. Upon completion of this course, the student will be able to weld in all positions, read basic weld symbols, and have an understanding of written welding procedures.

*Prerequisites: None*

## **104 WELDING BLUEPRINT READING & SYMBOLS FALL, SPRING 2(2-1)**

Provides practice in reading blueprints. Topics include orthographic projection, auxiliary views, revolved sections, surface and centerline relationships, scale drawing and tolerances. The student interprets detailed weld symbols using the American Welding Society standard.

*Prerequisites: None*

## **105 WELDING FABRICATION I, FALL, SPRING FEE, 2(2-1)**

Allow students to fabricate a part from a blueprint and weld the assembly with a specified welding process. Cutting and forming may be required prior to assembly. Depending on the size and complexity of the project, students may be asked to work in a team to complete an assignment.

*Prerequisites: WELD 101 or INMT 109 and WELD 104 or INMT 110 all with a C or better*

## **106 WELDING METALLURGY, FALL, SPRING 2(2-0)**

This course is to assist those in welding or related industries to extend their knowledge of metals during welding. The main emphasis is placed on reasons for the various behavioral characteristics of metals. The course will focus on: fundamental welding processes and manufacture of steel, structure and metallurgical changes of metals during welding, physical and mechanical properties, stresses, stress relief and annealing, and weldability of steel and alloys.

*Prerequisites: WELD 101 and WELD 104, with a C or better*

## **200 WELDING FABRICATION II, FALL, SPRING FEE, 2(2-1)**

Allows students to fabricate and weld parts from a simple sketch that requires mathematical calculations. Cutting and forming may be required prior to assembly. Depending on the project, students may be asked to work in a team to complete an assignment. As time allows, students may also design and fabricate an individual project.

*Prerequisites: WELD105 with a C or better*

## **201 GMAW WELDING II, FALL, SPRING FEE, 2(2-1)**

Teaches students to weld on stainless steel and aluminum sheet metal and plate. The student will be able to differentiate, select proper electrodes, shielding gases, and properly adjust parameters. Emphasis is placed on axial spray, pulse spray and short circuit mode of transfer depending on base metal. Upon completion of this course, the student will be able to weld in all positions, read some basic weld symbols, and have a basic understanding of written welding procedures.

*Prerequisites: WELD 103 or INMT 110 with a C or better*

## **202 GAS TUNGSTEN ARC WELDING (GTAW) FALL, SPRING FEE, 2(2-1)**

Is a study and operation of primarily gas tungsten arc welding on some mild steel, with the majority of work on stainless steel and aluminum. The student will learn about the different types of electrodes and shielding gases used in these processes. Students will be able to weld in all positions, read some basic weld symbols, and have a basic understanding of written welding procedures.

*Prerequisites: WELD 201 or INMT 110 with a C or better*

## **203 GAS METAL ARC WELDING (GMAW) PRODUCTION FALL, SPRING FEE, 2(2-1)**

An emphasis on metal cored and flux cored electrodes. The main focus is skill enhancement to set standards set forth in AWAS and steel building construction codes. The testing will consist primarily of 0.375" and 1.00" carbon steel in the 3G and 4G positions.

*Prerequisites: WELD 103 or INMT 109 and WELD 201 or INMT 110 with a C or better*

## **204 SHIELDED METAL ARC WELDING (SMAW) PRODUCTION, FALL, SPRING FEE, 1(1-2)**

A continuation of SMAW Welding I (WELD102). The primary emphasis will be in the use of E6010, E7018 and E8018 electrodes within the parameters set forth in the various welding codes. The students will enhance skills to standards set forth in AWS, ASME and steel building codes. The testing will incorporate 3G and 4G positions with both carbon steels and stainless steels.

*Prerequisites: WELD 102 or INMT 109 with a C or better*

## **205 GAS TUNGSTEN ARC WELDING (GTAW) PRODUCTION FALL, SPRING FEE, 1(1-2)**

A continuation of GTAW Welding (WELD202). The primary emphasis will be in the use of the various tungsten electrodes being used in industry. The main focus is skill enhancement to standards set forth in AWS, ASME and API codes. The students will be tested in the 3G and 4G plate positions in steel applications, with the greatest emphasis being in the 5G and 6G positions using thin wall stainless steel pipe and tubing and aluminum plate less than 0.315" thick.

*Prerequisites: WELD 202 with a C or better*



## Other Education Opportunities

### Siena Heights University at Lake Michigan College

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 2,400 students in full-time and part-time study, leading to associate's, bachelor's, and master's degrees. A leader in non-traditional education, Siena Heights has over 30 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 fact, the first degree completion center started here at Lake Michigan College 30 years ago. In addition to the Lake Michigan College Center, Siena Heights operates degree completion programs in Battle Creek, Jackson, Lansing, Southfield, and Monroe.

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.

### Meeting Adult Needs

Siena Heights University has a flexible, innovative approach to education that offers:

- evening, weekend, and online classes
- a variety of credit options, including CLEP, military training, and possible credit for college-equivalent learning
- a convenient location
- individualized academic advising
- considerable savings in tuition expenses

As a result of earning degrees from Siena Heights, 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.

### Degree Programs

Siena Heights offers junior and senior level courses to students interested in earning a bachelor's degree. Siena Heights will accept up to 90 semester hours of transfer credit. For more information go to [www.lakemichigancollege.edu/transfer](http://www.lakemichigancollege.edu/transfer). All of these 90 hours can come from LMC which results in a significant savings for Siena Heights students pursuing their bachelor's degree. All courses needed to complete the bachelor's degree are offered on the Napier Avenue Campus, or online.

### 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.

### 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.

## 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 human 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 human service field and the role of the professional as an agent for positive social change.

## 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 public safety training and experience, and graduates of two-year occupational programs, or those who have completed an apprenticeship or certain military certification. The B.A.S. is structured on the inverted-major 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 Heights 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 Heights also awards credit for successful completion of programs at many accredited technical and trade schools. Graduates pair their training with classes offered by Siena Heights for the B.A.S. with majors such as energy production, legal office systems, electronics technology, drafting & design technology, industrial maintenance 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 non-traditional 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.

## 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 online and should request official transcripts from high school and all post-secondary 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, MI 49022

Phone: (269) 927-6711 or

(800) 252-1562 ext. 6711

Fax: (269) 927-8612

[www.sienaheights.edu](http://www.sienaheights.edu)

# Western Michigan University-Southwest at Lake Michigan College

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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, Nursing, 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, WMU enrolls more than 25,000 students. The Carnegie Foundation for the Advancement of Teaching places WMU among the 76 public institutions in the nation designated as research universities with high research activity.

Extended University Programs (EUP) supports the delivery of the University's academic programs to provide educational opportunities across Michigan and beyond, through eight regional locations: Battle Creek, Grand Rapids (two locations), Lansing, MetroDetroit, Muskegon, Southwest for the St. Joseph and Benton Harbor region, and Traverse City. Through these regional locations, EUP promotes advanced lifelong learning in Michigan 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 provide flexible course completion timelines) as well as professional certificates and lifelong learning enrichment courses.

## Undergraduate Degree Programs

Students can begin course planning by working closely with the counseling office at LMC and meeting with WMU advisors at WMU-Southwest. 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 WMU-Southwest courses, you may also take courses on the WMU main campus, or at any of the WMU regional locations as well as online.

## Business Administration

### Bachelor of Business Administration (BBA)

The Business Administration transfer program offers students 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 has been 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. The Associate in Business Administration from Lake Michigan College transfers into this program.

## Elementary Education

### Bachelor of Science (BS)

The Elementary Education transfer program is designed to prepare students to assume teaching responsibilities in grades K-5 in all subjects, grades 6-8 in at least one content area, and grades K-8 in all subjects when teaching in a self-contained classroom. It is a part-time or full-time program. Students major in Elementary Education and complete additional coursework in one content major (Integrated Science or Social Studies) or two content minors (Integrated Science, Language Arts, and Mathematics--with some math courses required at the main campus in Kalamazoo. Students may also obtain the Early Childhood (ZS) endorsement with courses offered at WMU-Southwest. To earn the B.S. degree, a minimum of 122 credit hours are required. The Education-Elementary Associate in Applied Science degree at Lake Michigan College transfers into this program.

## Family Studies or Child and Family Development

### Bachelor of Science (BS) - Online

The Family Studies or Child and Family Development program offers two majors for students to choose from. The Family Studies major prepares students for positions in public or private human service organizations or programs related to children, families and individuals; The Child and Family Development major prepares individuals to work with infants, toddlers, preschoolers, school-age children, and their families in a variety of settings. This program is offered primarily online, although there are face-to-face course requirements on the main campus in Kalamazoo. The Early Childhood Education Associate in Applied Science degree at Lake Michigan College transfers into this program.

## Interdisciplinary Health Services

### Bachelor of Science (BS) - Online

The Bachelor of Science in Interdisciplinary Health Services (BS-IHS) is designed for individuals who hold an associate's degree in an allied health or human services field and are interested in completing their bachelor's degree for career change or advancement. The B.S. in Interdisciplinary Health Services prepares students in the wide range of skills necessary to think critically, work collaboratively, and respond flexibly to change in health and human service environments. The BS-IHS curriculum provides students with the knowledge, sensibilities, and skills to function efficiently in interdisciplinary teams in health care and human service settings.

## **Manufacturing Engineering**

### **Bachelor of Science in Engineering (BSE)**

The Manufacturing Engineering transfer program at WMU is one of the few manufacturing engineering degrees offered in the nation. 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 Engineering (Pre) Associate in Science degree at Lake Michigan College transfers into this program.

## **Nursing RN-BSN Progression Track**

### **Bachelor of Science in Nursing (BSN)**

The Nursing (BSN) degree from Western Michigan University's Bronson School of Nursing seeks to prepare thoughtful, professional nurses who possess the skills, knowledge, and values necessary to deliver quality health care in the 21st century. This RN transfer program, accredited by the Commission on Collegiate Nursing Education, leads to the completion of a Bachelor of Science in Nursing (BSN) degree. Courses will be offered in a hybrid format with several face-to-face meetings per semester. The remainder of the discussion and interaction occurs online, combining high-tech and high-touch components to present students an experience utilizing the best of both course formats. Working nurses can plan classes accordingly with WMU providing the necessary flexibility for timely program completion.

## **University Studies**

### **Bachelor of Arts or Bachelor of Science (BA or BS) - Online**

The University Studies degree integrates prior coursework done through other majors into a generalized degree. The University Studies program is able to provide students with an opportunity to complete a bachelor's degree from WMU in a manageable and straightforward fashion without the constraints of a specialized curriculum. The University Studies degree assists both current and former WMU students who have approximately 86 credit hours or more.

## **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**

### **Master of Arts (MA)**

The Department of Educational Leadership, Research and Technology offer a Master of Arts in Educational Leadership, with a concentration in K-12 School Principal Leadership, available at WMU-Southwest. Some courses in K-12 Curriculum and Leadership, Organizational Leadership, and Higher Education & Student Affairs Leadership concentrations are also available. This 30 hour program prepares leaders for educational organizations, including K-12 schools, higher education, governmental agencies and professional associations.

## **Education – The Practice of Teaching**

### **Master of Arts (MA)**

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).

The Practice of Teaching - Urban Education specialization brings students together from WMU locations in Battle Creek, Muskegon and Benton Harbor/St. Joseph. This regional cohort 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 P-12 teachers and instructional leaders who want to explore the socio-cultural contexts of schooling, diversity, multiculturalism, social Justice, and issues of race, class, and gender.

## **Organizational Learning and Performance**

### **Master of Arts (MA)**

The Master of Arts in Leadership for Organizational Learning and Performance program provides graduate preparation for persons seeking entry into, or advancement in, a career in organizational learning and performance (also known as staff development, human resource development, employee training, etc.) in business, government, education, healthcare and non-profit settings. This program prepares leading-edge practitioners to provide effective direction, through leadership and consulting roles, to assure that organizational learning and performance functions are linked to worthwhile organizational and individual performance results. Graduates will demonstrate an understanding of and commitment to fostering a diverse, multi-talented workforce whose lifelong learning is key to organizational excellence.

## **Social Work (Cohort)**

### **Master of Social Work (MSW)**

The Social Work program at WMU-Southwest is offered as a cohort program, starting every other year. 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**

### **Educational Technology**

#### **Graduate Certificate (Graduate Cert) - Online**

The Graduate Certificate in Educational Technology addresses technical issues, with a focus on curriculum, instruction, staff development, planning, and other educational and administrative aspects of technology coordinators. The online graduate certificate program (15-21 credit hours) enables individuals who currently hold a position as a school technology coordinator, or who wish to obtain such a position, to expand their skills and knowledge pertaining to their leadership role in the effective use of communications, information, and communications technology in schools.

## **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. WMU-Southwest 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 WMU-Southwest on LMC's Napier Avenue location.

## **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](http://www.wmich.edu/finaid).

## **Admissions**

Prospective students may submit an application form online at [www.wmich.edu/apply](http://www.wmich.edu/apply) or by bringing the application to WMU-Southwest 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  
Office of Admissions  
1903 W. Michigan Avenue  
Kalamazoo, Michigan 49008-5211**

**For more information please contact us:**

**WMU – Southwest  
Western Michigan University  
2785 E. Napier Avenue  
Benton Harbor, MI 49022  
Phone: (269) 934-1500  
Fax: (269) 934-1505  
[www.wmich.edu/southwest](http://www.wmich.edu/southwest)**



# Academic and College Policies & Procedures

## 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.

### 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 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.

### 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 Assistant Director of Human Resources and Diversity, Room A305, (269) 927-8102.

## Academic Intervention

### Under review – Check website for updates

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, College and Career Success course, 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 an academic 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 an academic advisor prior to registering. The academic advisor will develop a written plan of help for the student. This plan will be discussed with the student during their meeting with the academic advisor.

### Students on Academic Probation will be required to:

1. Meet with an academic 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 spring 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 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 Vice President 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, spring, and summer term) 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 an academic 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 academic 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.

## Academic Recognition

Two academic recognition lists are published at the completion of Fall and Spring semesters: President's List, and Dean's List.

President's and Dean's List students must have been enrolled full-time completing a minimum of 12 semester hours of 100-level or above courses in the semester. President's List are those students who have earned a semester GPA of 4.0 for the semester courses. Dean's List are those students who have earned a semester GPA of 3.5 or higher for the semester courses.

Part-Time Dean's List are those students who have accumulated 12 or more semester credit hours of 100-level or above courses at Lake Michigan College. Part-Time Dean's List students must have been enrolled part-time completing between 6 to 11 semester hours of 100-level or above courses during the semester and have earned a semester GPA of 3.5 or higher for the semester courses.

Grades for remedial courses (099 or below), grades of W, S, U, IP, or TR (courses transferred into Lake Michigan College) are not computed in the Lake Michigan College grade point average and therefore do not meet the qualification for courses for academic recognition.



## Acceptable Use for Technology Resources Policy

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, inspect electronic records and monitor electronic communication that resided on college assets or that utilize the college's network. 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 non-reappointment, 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:

- a. Violating any federal, state, local, or common law, or statute.
- b. Violating any libel or slander laws.
- c. Installing institutionally owned software on personally owned computer(s) unless the institution's software agreement with the licensor permits such use.
- d. Sharing account numbers or passwords with someone else.
- e. Publicly disclosing or violating the privacy of an individual by sharing personal, confidential or private information such as home addresses, phone numbers, student IDs, etc.
- f. Communicating a false identity or that they are representing someone else.
- g. Using any college network or other communications system to obtain or to disseminate pornography.
- h. Using technology for private business, or product advertisement or political lobbying.

- i. Seeking to gain unauthorized access to computing resources or data.
- j. Change an official record using the identity of someone else in an unauthorized manner.
- k. Loading software on College owned computers unless approved by Information Technologies.
- l. Using peer to peer networking, illegal downloading, or other means to violate copyright laws through the sharing copyright restricted material.
- m. Using College technology resources to violate copyright laws, such as copying software for which one is not the registered owner, or by illegally distributing or consuming copyright protected software or digital content.
- n. 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.
- o. Transmitting or making accessible offensive, annoying, or harassing material, such as broadcasting unsolicited messages (SPAM) or sending mass emails.
- p. Intentionally accessing or damaging systems or information or using any system for illegal activities.
- q. Attaching any computer or network device that is not owned by Lake Michigan College to the Lake Michigan College wired Ethernet infrastructure.
- r. Enabling or otherwise implementing any wireless radio equipment which interferes or has the potential to interfere with the College's existing IEEE 802.11 wireless network.
- s. Implementing any wireless networking equipment or application for the purpose of relaying or retransmitting any LMC data network communication.

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, 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.

## Assurance of Quality - Career Education & Transfer Programs

### Career Education Programs

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

- initiate the program of study after April, 1988, and complete within three years of initiation, with a GPA of 2.0 or better;
- follow the official LMC program guide sheet, dated 1987, or thereafter, for course selection;
- be employed full-time within one year of graduation.

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

### Retraining

If the student is subsequently judged by an employer to be lacking in technical job skills normally expected of an entry-level employee within his/her major, LMC will provide further skill training 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 certified by the Career Planning & Placement Office 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 were 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 LMC.
- The retraining courses will be limited to 16 hours of registration regardless of outcome.

### Transfer Programs

Lake Michigan College assures that any course on the appropriate transfer guide sheet will transfer to the baccalaureate degree institution identified in the guide. To qualify, a student must:

- initiate a program of study beginning after April, 1988;
- earn a minimum grade of 2.0 in the course(s) taken for transfer credit;
- complete a program of study as planned and signed by the student and the A.O.Q. counselor;
- meet the admission criteria of the baccalaureate degree institution;
- transfer to a baccalaureate degree institution within one year of completing an Associate in Arts, Associate in Science, or Associate in Business Administration degree at Lake Michigan College.

### Tuition Reimbursement:

If all conditions are met, Lake Michigan College will refund tuition for any course that is not acceptable for transfer by the baccalaureate degree institution.

## 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, Radiologic Technology, Paramedic, MRI, and DMSO 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.

**Note:** Student is responsible to Drop or Withdraw from courses. LMC does not Drop or Withdraw based on 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 required as 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.

## 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.

## Code of Conduct Policy to Support Drug-Free Workplace

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 drug-free 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.

## 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 Student Resource Center 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 1973

Section 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 Diversity Officer at the following address: Director, Human Resources & Diversity 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 Diversity 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 Diversity Officer within five (5) business days of receipt of answers to the informal complaint. The Diversity 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 Diversity Officer, he/she may submit a signed statement of appeal to the College President within five (5) business days after receipt of the Diversity 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 Diversity 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 Diversity Officer's office.

## 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 Record's Office, room A220, (269) 927-8107.

Directory information, which may be made public without your written permission, shall include: (name, phone number, email address, 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 to release any or all of the above information you must inform the Record's Office, room A220, on the Napier Avenue Campus (269) 927-8107, 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.

## Fire Arms

See Weapons-Free Campus Policy

## Grades

Grade Point Averages (GPA) are often used to determine your eligibility for university entrance, standing on the honor roll, and minimum graduation requirements.

## Repeating Courses

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; this means one original and three retakes for a total of four times for course credit.

For financial aid eligibility, students may take a class that they have already passed only one additional time. A passed class is defined as one where the student received "credit" for the course. So, a "D" is considered a passing grade, even if it does meet graduation requirements or does not allow you to move on to the next class. This is regulated by federal law and CANNOT be appealed.

## Semester GPA

To calculate your semester GPA, set up four columns. In the first, list your credits. In the second column, list your subjects. In the third column, write your letter grades. In the fourth column, record your points, i.e. A=4, B=3, C=2, D=1, E=0. Multiply the point value of each grade by the credit value of the subject.

Add up the points of the fourth column, and divide this by the number of credits listed in the first column.

### EXAMPLE:

Credits	Subjects	Grades	Calculation	Points
3	English 101	B	3x3	9
3	Math 101	C	3x2	6
3	Political Science 101	A	3x4	12
3	Chemistry 101	A	3x4	12
3	Computer Science	C	3x2	6
<b>15</b>	<b>Total</b>			<b>45</b>
				<b>45/15=3.00 GPA</b>

## Cumulative GPA

To compute your cumulative grade point average, add up the total number of points earned and divide by the total number of credits. This is your cumulative GPA.

## Dean's List

(See Academic Recognition section)

## Grading Policies

- 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 a grade of "I" (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 and a grade will be assigned. An IP grade will not be computed in the student's GPA.
- All other grade changes must be made within one semester of their issuance.
- Students who withdraw from class(es) through 80% of the course will be assigned a grade of "W."
- 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 Office of Records & Registration for more information at (269) 927-8107.**

## Reporting and Availability of Grades

Student's grades will be available the Thursday following the last day of the semester electronically through WaveLink if a student's financial account is in proper order.

Student's grades are available for their own review at any time. However, grades will not be reported over the telephone. Students who are seeking employment and who wish their grades released to personnel offices or prospective employers must contact the Office of Records and Registration to request a transcript. No grades will be released at the end of the semester nor will transcripts be issued if student bills are unpaid. This applies to Business Office accounts, library materials, or other expenses incurred while attending Lake Michigan College.

## Guns

See Weapons-Free Campus Policy

## Non-Discrimination

### Notice of Non-Discrimination Policy

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 gender. Minorities and disabled persons are encouraged to attend Lake Michigan College. Any questions regarding your rights under Title VI and Title IX should be directed to Assistant Director, Human Resources and Diversity, (269) 927-8102, Room A-305.

Any questions regarding your rights under Section 504 should be directed to Student Resource Center, (269) 927-1000, ext. 5192.

Lake Michigan College offers an "open door" admissions policy for individuals who are interested in and capable of benefiting from the post-secondary experience. Any person can apply for admission to Lake Michigan College who is interested in and capable of benefiting from the post-secondary experience, and who is:

1. A high school graduate or GED recipient, or
2. Eighteen years of age or older

This commitment to equal opportunity encompasses:

A. For every student the right:

- of access to all courses including career education courses and programs;
- to physical education and to participation in interscholastic, intramural, and club athletics;
- to equal treatment, including financial aid assistance, advising, employment assistance, honors and awards, and extracurricular activities.

B. For every individual the right to personnel, employment, and College business practices that provide equal opportunity and equity.

Pursuant to its obligations under the Federal and State statutes, and in conformity with other legal and moral obligations, the College has on staff a Diversity Officer within the Office of Human Resources to implement the commitment of the College.

Inquiries or complaints by College students, prospective students, employees, employee applicants, and persons providing services to or for the College, which concern nondiscrimination policies or procedures may be directed to:

### **Assistant Director, Human Resources and Diversity (Diversity Officer)**

Lake Michigan College  
2755 East Napier Avenue  
Benton Harbor, MI 49022-1899  
(269) 927-8102  
Room A-305

OR

Michigan Department of Civil Rights  
185 E. Main Street, Suite 602  
Benton Harbor, MI 49022  
(269) 925-7044 or  
1-800-482-3604

No act of retaliation will occur to any person making a charge, filing a complaint, testifying, or participating in any discrimination investigation or proceeding.

The Diversity Officer will, upon request, provide a copy of the Lake Michigan College grievance procedures, and will investigate each complaint according to such procedures. A copy of relevant laws, regulations and policy may be found in the Office of Human Resources and with the Diversity Officer.

## Sexual Harassment Policy

The Elliott-Larsen Civil Rights Act prohibits discrimination based on race, color, religion, national origin, age, sex, height, weight, marital status, arrest record, and disability in all employment practices, including terms, conditions, and privileges of employment. This act prohibits discrimination and provides specific remedies and penalties. Title IX of the Educational Amendments of 1972 prohibits sexual harassment of students in any part of any higher education institution receiving federal funds and requires institutions to maintain grievance procedures capable of prompt and equitable resolution of sexual harassment complaints.

Lake Michigan College prohibits sexual harassment in its employment practices and in its educational programs and activities.

Sexual harassment consists of unwelcome sexual advances, including unwanted touching; verbal remarks of a sexually suggestive or derogatory nature; requests for sexual favors; and other verbal or physical behavior of a sexual nature which have as their consequence an adverse effect on the recipients' morale, work status, or academic or job performance. Such conduct is absolutely prohibited whether the perpetrators are students, employees of the College or contractors, or other non-employees who have reason to be on College premises where:

- A. submission to such conduct is either an expressed or implied condition of employment, education, or academic, financial, or counseling assistance,
- B. submission to or rejection of such conduct is used as a basis for an employment decision or the performance evaluation of students or staff, or
- C. the conduct has the purpose or effect of substantially interfering with an affected person's work or scholarly performance, or creating an intimidating, hostile or offensive work, or education environment.

The College will actively investigate any allegations of sexual harassment by students or staff, and if it is determined that sexual harassment has occurred, will take prompt and appropriate disciplinary action.

Anyone who believes that sexual harassment has occurred is expected to report such conduct promptly under appropriate College procedures.

## Grievances

- A. Definition: A discrimination grievance is an unresolved complaint by any member of the faculty, staff, or any student that there has been a violation or misinterpretation of the College's Diversity/Nondiscrimination policies and procedures or of any antidiscrimination provisions of law. The following are not subject to the grievance procedure:
  1. decisions to reduce the work force;
  2. the contents of evaluations;
  3. the modification, amendment, or repeal of any Board policy;
  4. the modification, amendment, or repeal of any operational procedure of the administration, unless it violates Board policy.
- B. The collegewide grievance procedure will be used to resolve all grievances.

C. A grievant must join in a single grievance proceeding for every claim that he or she has arising out of the same transaction or occurrence, even where it is asserted that the transaction or occurrence has violated more than one Board policy, administrative procedure, or law. A grievant is prohibited from filing more than one grievance concerning the same transaction or occurrence.

D. Forms: The administration has developed grievance forms for use in processing grievances. All grievances must be signed by the aggrieved person and must specify the date or dates upon which the complained of action occurred; the policy, procedure or law which is claimed violated; the facts upon which the aggrieved person relies; and the relief requested. *Grievance Procedures and forms for Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the Age Discrimination Act of 1975 may be obtained in Human Resources.*

## 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.

**Napier Avenue Campus:** Smoking is prohibited at the B-Wing entrance to allow parents and children to enter and exit the building without passing through second hand smoke.

**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. Smoking is prohibited in front of the childcare entrance to allow parents and children to enter and exit the building without passing through second hand smoke.

**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 Code of Conduct

## Introduction and Purpose

Lake Michigan College (LMC) seeks to foster a secure learning environment. The Student Code of Conduct sets forth expectations for individuals who choose to become part of the College community. Students attending LMC are responsible for adhering to LMC's Student Code of Conduct, Rules, Regulations, College Policies, and all local, State and Federal laws.

## Definitions

- **Accused Student** – Any student accused of violating this Student Code of Conduct or the general College rules.
- **Admission Review Panel** – This panel will review and make decisions related to applicants interested in enrolling, enrolled students continued enrollment, and suspended students' request for reinstatement to the College.
- **Appeal** – A request to review a previous College decision. All students are required to state their appeal in writing at the time they begin the appeal process.
- **Behavioral Intervention Team (BIT)** – The BIT's responsibility is to identify and coordinate services or intervention strategies for a broad range of student behaviors, including but not limited to mental illness, substance abuse, and disruptive conduct. The use of behavioral intervention teams is a method for identifying and responding to student conduct issues in an educational settings. The BIT has been charged with upholding College policies and maintaining a healthy environment for the College.
- **Campus Designee** – A College appointee who is responsible for initiating the judicial process at the local level.
- **College** – Lake Michigan College
- **College Officials** – Administrative and executive officers and their designees.
- **Complainant** – Any person who submits a charge alleging that a student violated this Student Code of Conduct or the general College rules.
- **Criminal Activity** – Any alleged violation of local, State, or Federal laws.
- **Off-campus** – Off-campus classes, including on line, utilize LMC resources including faculty, internet, or intranet services, whether or not directly operated by LMC.
- **On-campus** – All property owned, operated, maintained, controlled, or leased by LMC.
- **Property Belonging to LMC** – All land, buildings, facilities, or other grounds or structures, including adjacent streets and sidewalks, or any item in possession of or owned, used, loaned, leased, maintained, or controlled by LMC or funded by LMC budgets, including computers and network systems, library materials, classrooms, and laboratories used for LMC purposes.
- **Student** – an individual, who is currently enrolled, has been enrolled, or who has applied to be enrolled in the College.
- **Student Appeals Committee** – A group of persons authorized by the vice president, student services (or his/her designee) to consider whether a student has violated the Student Code of Conduct.

## Jurisdiction

This Code applies to:

- The on-campus conduct of all students and registered student organizations.
- The off-campus conduct of students and registered student organizations in direct connection with the use of College resources, including the campus network; academic course requirements, such as internships, field trips, international study, or experiential learning activities; any activity supporting the pursuit of a certificate or degree, such as research at another institution; and any activity sponsored, conducted, or authorized by LMC or by registered student organizations.
- Off-campus conduct that negatively impacts LMC such as threats of violence or physical harm, unlawful harassment, or other conduct which may have a negative impact or may place its community (inclusive of students, employees or faculty) at risk.

## This Code also applies to:

- Any activity that causes substantial risk of destruction of property belonging to LMC or causes serious risk of harm or endangers the health or safety of members of the LMC community, including students, staff, and members of the public when participating in LMC events or activities.
- Or any activity in which a police report has been filed, a summons or indictment has been issued, or an arrest has occurred for criminal activity.

## Student Rights

Students of LMC 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 LMC 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 LMC.

## Student Responsibilities

Students are expected to conduct themselves as responsible individuals in accordance with institutional policies, rules, and regulations. In developing responsible student conduct, the institution prefers advisory, guidance, admonition, and example. However, when these means fail to resolve problems of student conduct and responsibility, appropriate disciplinary procedures will be followed.

## Prohibited Conduct

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. A student found to have committed or attempted to commit the following misconduct is subject to disciplinary sanctions:

- **Abusive Behavior:** 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 at any location providing College services.
- **Academic Dishonesty:** Cheating and plagiarism are the two most obvious forms of academic dishonesty. No student shall engage in behavior that, in the judgment of the instructor of the class, constitutes cheating, fabricating, 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.
- **Acts of Dishonesty:** No student shall furnish false and/or misleading information to any official, College employee or office nor engage in forgery, alteration or misuse of any college document, record or instrument of identification.
- **Alcohol and Drugs:**  
**Alcohol Violation** – the unlawful manufacturing, distribution, possession and/or sale of alcoholic beverages (except as expressly permitted by college regulations) or public intoxication on any LMC property or off campus sites such as hospitals or clinics.  
**Drugs Violation** – the unlawful manufacturing, distribution, possession and/or sale of marijuana, narcotics, or other controlled substance except as expressly permitted by law. This includes the possession of paraphernalia.
- **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 College programs and services.
- **Athletic Misconduct:** The Athletic Department imposes a higher standard of conduct on its student-athletes. Please refer to the Athletic Department for more information regarding the Athletic Code of Conduct.
- **Classroom Misconduct:** Classroom misconduct is any substantial behavior which disrupts or interferes with the learning experience, or disrupts the academic atmosphere of the institution including college-sponsored events and activities. Students are required and expected to conduct themselves as mature, considerate adults. Students should conduct and express themselves in a way that is respectful to all persons. This includes respecting the rights of others to comment and participate fully in class.
- **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.
- **Complicity in Violating the Student Code of Conduct:** Includes attempting, aiding, abetting, conspiring, hiring or being an accessory to any act prohibited by this Code. If a student has knowledge of another student, individual, or group committing or attempting to commit a violation of the Code, he or she is required to remove him- or herself from the situation and report it to the College.
- **Contracts:** No student shall enter into any contract in the name of the institution except with prior written authorization from appropriate College officials.
- **Failure to Comply:** A student shall comply with the direction of institutional officials, faculty, staff, or security officers in performance of their duties and identify oneself to these people when requested to do so. All students will carry a current LMC-issued photo identification.
- **Gambling:** A student shall not engage in any form of gambling on College-owned or operated property that is not a college-sponsored activity.
- **Harassment:** No student shall engage in harassment of another person. This shall include but not be limited to stalking, sexual or racial harassment and verbal and/or physical actions.
- **Indecent or Obscene Behavior:** A student shall not engage in any vulgar, unbecoming or obscene behavior.
- **Obstruction/Abuse of Grievance Procedure:** Includes but is not limited to:
  - Failure to comply with a summons of the Student Appeals Committee.
  - Falsification, distortion, or misrepresentation of the information to the Student Appeals Committee.
  - Disruption or interference with the orderly process of a discipline hearing.
  - Attempting to discourage an individual's proper participation in or use of the Student Discipline Grievance Procedure.
  - Attempting to influence the impartiality of a member of the Student Appeals Committee prior to and/or after a Student Discipline Grievance Procedure.
  - Verbal or physical harassment and/or intimidation of a member of Student Appeals Committee prior to, during, and/or after a Student Discipline Grievance Procedure.
  - Failure to comply with decisions, recommendations or sanctions imposed by the Student Appeals Committee.
  - Influencing or attempting to influence another person to commit an abuse of the Student Discipline Grievance Procedure.
- **Other Prohibited Misconduct:** The College reserves the right to evaluate and document special cases and to refuse admission and/or continued enrollment if the College determines that the applicant/student is a threat or a potential danger to the College community or if such refusal is considered in the best interest of the College. The vice president, student services may specify other behaviors that shall constitute student misconduct, subject to the approval of the President.



- **Safety:** A student shall not 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:** A student shall not erect or display signs or posters on College-owned or operated property unless authorized by the institution. A student shall not deface, alter, tamper with, destroy or remove any sign or inscription on College-owned or operated property.
- **Soliciting:** A student or organization may not 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 and Use of Tobacco:** In accordance with the Michigan Clean Indoor Act, P.A. 198 of 1986, LMC maintains a smoke-free environment. Smoking is not allowed inside the Napier Avenue Campus academic building, the Mendel Center, the Bertrand Crossing Campus, M-TEC facility, or South Haven Campus. Smoking and use of tobacco products (including electronic cigarettes) is not allowed anywhere inside the premises, including restrooms and private offices, or other space owned, operated, or leased by LMC, or in any College vehicles. Furthermore, the use of tobacco products and smoking is prohibited within 25 feet of all entrances of college buildings. 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. (Also see Smoking Section of the Student Handbook.)

#### **Theft or Abuse of Electronics and/or Technology:**

No student shall engage in the theft or abuse of electronics and/or technology, including but not limited to:

- Unauthorized entry into a file to use, read, or change the contents for any other purpose
- Unauthorized transfer of a file
- Unauthorized use of another user's identification and password
- Use of computing facilities to interfere with the work of another student, faculty, or staff member or college official
- Use of computing facilities to interfere with the normal operation of the instructional computing system
- **Theft and Vandalism:** A student shall not engage in attempted theft of and/or damage to property of the institution or 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:** A student shall not 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. (Also see the Weapons Free Campus Policy.)

## **Judicial Process**

When reports of alleged violation of the Student Code of Conduct surface, they are addressed by the vice president, student services or designee. The steps followed to resolve formal disciplinary matters are called the judicial process. The judicial process exists to ensure that basic due process is granted to all LMC students who find themselves in conflict with the College standards. Students, faculty, and staff may report possible infractions.

## **Due Process**

Due Process is the guarantee of student civil rights under the Constitution of the United States and the laws and regulations of Michigan and Lake Michigan College. Due Process is that process which prevents rights from being taken away from an individual without notice and an opportunity to respond to allegations.

Due process requires that the vice president, student services or designee shall meet with the student as soon as possible after the alleged violation of the Student Code of Conduct and at such meeting the vice president, student services or designee shall provide the student with (1) notice of the alleged violations of the Student Code of Conduct, (2) the facts upon which the alleged violation is made, and (3) an opportunity to discuss the alleged violations and to be heard. Within five (5) school days of the meeting, the Vice President, Student Services or designee will provide the student with notice of the decision and information regarding the appeal process, if applicable.

## **Incident Reporting Process**

Anyone wishing to report student misconduct shall document all relevant information on the Maxient Conduct Manager System using the Student Conduct/Concerning Behavior form. When an incident report is filed, it is reviewed by the Director, Student Life, in cooperation with the Director, Public Safety and/or the Vice President, Student Services. Following review of the incident report (which may include without limitation, any and all research deemed appropriate regarding the underlying incident), a determination will be made by the Vice President, Student Services or designee (in possible consultation with other campus and/or College leadership) whether charges of misconduct should be filed in response to the incident.

### **When a Maxient report of possible infraction of the Student Code of Conduct is received by the office of the vice president, student services or designee, the following process is implemented:**

1. The report of alleged misconduct is reviewed by any of the following: The Vice President, Student Services or designee, the Director of Student Life, or the Director of Public Safety/evening administrator. This review will determine suitable address of the matter, including whether judicial action should be initiated and may include contacting the student reportedly involved in the incident and/or other witness(es) to seek additional, clarifying information. Review of a reported incident does not, in itself, constitute judicial action.
2. If it is determined that judicial action should be initiated to resolve a more serious infraction, an attempt to make personal contact with the alleged student will be conducted. If unable to contact the alleged student a written notice of judicial charges and sanctions is sent to the student's local address listed in College records and a meeting with the accused student(s) is conducted by the Vice President, Student Services or designee.

3. Failure or refusal to pick up or accept a letter does not remove the student's obligation to adhere to any instructions, sanctions, or deadlines issued in the letter.
4. A student may not avoid adjudication of an alleged policy infraction by withdrawing from the College. Should a student withdraw or depart from the College before investigation and/or adjudication of an alleged infraction is completed, the judicial process may proceed, and appropriate sanctions for confirmed charges may be issued. Pending resolution of a disciplinary matter, a hold will be placed on the absent student's transcript.

## Academic Complaint Procedure

(See page 185.)

## Discipline Grievance Procedure

The vice president, student services or designee handles matters that require disciplinary action at Lake Michigan College. All students at the College are guaranteed due process (See Due Process section of this document) in disciplinary matters. When a student has been charged with misconduct or an infraction of the College rules, the vice president, student services or designee will confer with the student charged. The student will be informed of his/her right to have an advisor from the college community present during this conference. Pending action by the vice president, student services or designee on the charges, the status of the student will not be altered, nor will his/her right to be present on the Campus and to attend classes be suspended, except for reasons related to the safety and/or well being of other LMC students, employees, or property. The Vice President, Student Services or designee shall be the person to make the decision to suspend with regard to safety or property.

Disciplinary action taken by the vice president, student services or designee toward a student found responsible for misconduct or a violation of College rules may include, but are not limited to, an oral warning up to expulsion from the College. See sanctions below.

## Sanctions

Any combination of the following sanctions or other sanctions may be imposed through the judicial process. Multiple and/or repeated violations typically result in increased sanctions. The sanctions listed are not inclusive, but merely serve as guidelines:

1. **College Property Restrictions** – restriction from certain College facilities or property, either physical or virtual, for a definite period of time.
2. **Disqualification** – from receipt of institutional financial aid while the sanction is imposed or possibly thereafter.
3. **Educational Sanctions** – a student is required to write a paper, plan and present a program, attend a class or seminar, or complete other educational requirements.
4. **Expulsion** – the most severe sanction of violation of College policy is expulsion, which results in immediate dismissal and permanent separation from the College. Any student who is expelled due to misconduct will not be entitled to any refund of tuition or other fees and may incur additional charges and fees after financial aid is adjusted.
5. **Fine** – a monetary penalty for property damage, theft, or other violations that result in inconvenience cost to others.
6. **Formal Warning** – a written reprimand that expresses disapproval of the student's actions and warns against any potential violations of College policy in the future.

7. **Interim Suspension** – temporarily restrict student(s) from Campus/College activities pending a hearing.
8. **Loss of Privileges** – denial of specific privileges for a designated period of time.
9. **Parental Notification** – as permitted by law, the College reserves the right to disclose to parents or legal guardians information about a student's violation of College regulations and policies and Federal, State and/or local laws governing the use of alcohol or a controlled substance. The College may notify parents/legal guardians of alcohol or a controlled substance violation if the student is under the age of 21. The Vice President, Student Services or designee determines the circumstances under which parental notification takes place.
10. **Probation** – a period of observation and review. The length of this period of probation will be determined by the Vice President, Student Services or designee. If found responsible for violating any College policies or failure to comply with other requirements stipulated during this period, the student may be immediately suspended from the College and/or events pending further disciplinary review.
11. **Restitution** – compensation for loss, damage, or injury. This may take the form of appropriate service and/or monetary replacement.
12. **Suspension** – immediate dismissal from classes and activities at the College for at least the remainder of the term/semester in progress and/or a specified period of time thereafter. Any additional violations or failure to comply with other requirements stipulated during this time period of suspension may result in expulsion. During suspension, the student is not permitted to visit the College premises or attend any College functions without prior written permission from the Vice President, Student Services or designee. Any student who is suspended due to misconduct will not be entitled to any refund of tuition or other fees and may incur additional charges and fees after financial aid is adjusted.

## Student Discipline and Due Process

### A. Expulsion or suspension

1. All recommendations for expulsion or suspension shall be directed to the vice president, student services or designee, who may also initiate such action on his/her own authority. Where such recommendation is received, where the Vice President, Student Services or designee on his/her own authority determines such recommendation appropriate, the Vice President, Student Services or designee 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 Vice President, Student Services or designee 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 vice president, student services or designee 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 Vice President, Student Services or designee shall notify the student of his/her recommendation and shall also notify the student of his/her appeal rights.

4. See Student Appeal Process.

### **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 vice president, student services or designee upon his/her own authority. Where such a recommendation is received, or where the Vice President, 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 Appeal Process for Disciplinary Grievances (non-academic):**

### **Step 1: Violation – Student Code of Conduct**

Alleged event or alleged code of conduct violation occurs and the vice president, student services or designee is notified. Investigation and adjudication of alleged violation occurs. The Vice President, Student Services or designee send student(s) a letter describing the allegation(s), or violation(s) and sanction(s) if applicable. Student is informed of rights regarding appeal.

### **Step 2: Student Response**

A. Student agrees with the findings and the case is closed.

B. If student disagrees with findings and/or sanction(s), the student can appeal the Vice President, Student Services or designee's decision through the Student Appeal Process with the Student Appeal Committee. The student must submit their appeal request in writing to the College ombudsperson within five (5) business days after receiving the final decision from the vice president, student services or designee.

### **Step 3: Student Appeal Committee**

#### **(if student disagrees with findings and/or sanction(s))**

Within seven (7) business days of receiving the written appeal request the Student Appeal Committee will set a hearing date. The Student Appeal Committee will hear the case and make a final determination as to whether the student violated the Code of Conduct. Within seven (7) business days after the hearing, the Student Appeal Committee will render a decision, and the decision is final.

The College reserves the right for the Vice President, Student Services or designee to suspend the normal judicial process under the following circumstances: cases where a student may present a threat of harm to self, or others, to property, or are disruptive to the campus living and learning community.

**Note** – the entire Student Appeal Process and Code of Conduct procedures are located in the College Handbook, the College Catalog, the College website, and in the office of the Vice President, Student Services.

## **General Provisions**

- a. All documents, communications, all records dealing with an appeal shall be filed by the Vice President, Student Services or designee. All records of actions under this procedure shall be held in strict confidence and will be available to the student initiating the appeal or his/her representative.
- b. Hearings and conferences held under this procedure shall be conducted at a time and place that will afford a fair and reasonable opportunity for all appropriate persons to be present. When such hearings and conferences are held during College hours, employees who are required to attend shall be excused to do so with no reduction in pay. Students who are required to attend will be excused from classes with no penalty.

## **Student Appeals Committee**

### **1. 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. The decision of the Student Appeals Committee is final.

### **2. Composition**

The Student Appeals Committee shall consist of two (2) students from Student Senate, two (2) faculty from outside the division\*, two (2) administrators outside the division and one (1) classified staff. The director of intercollegiate athletics will chair and facilitate the Student Appeals Committee and is a non-voting member. The Student Senate, Division 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.

### **3. Ombudsperson**

Any full-time staff and/or faculty member can serve as the Lake Michigan College ombudsperson and is appointed by the vice president, student services. The ombudsperson's primary duty is to assist students in resolving complaints or disputes within the College. The ombudsperson also helps staff members, instructors, and administrators sort through College rules and regulations that might apply to specific issues and concerns. The ombudsperson carries out these duties in a neutral, confidential, informal and independent manner.

Current Napier Avenue and M-TEC Campuses ombudsperson is the director, advising and retention, room A-204, (269)927-6280.

Current South Haven Campus ombudsperson is the director of student services, room SH-127, (269) 637-7526.

Current Bertrand Crossing Campus ombudsperson is the director of student services, room BC-101b, (269) 695-2988.

Following a request for assistance, the ombudsperson 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 ombudsperson is available to all parties involved in Student Appeals Committee hearings, the final step in an effort to resolve a dispute.

**NOTE:** The ombudsperson is not an advocate for any group on campus; instead the ombudsperson is an advocate for fairness. The ombudsperson 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 ombudsperson does not accept formal complaints or notice for the College. Members of the LMC community may contact the ombudsperson 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 ombudsperson for procedural assistance. Any informal records that are generated will be kept on file by the ombudsperson.

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. Any questions regarding your rights under Section 504 should be directed to Student Resource Center, C-205a, (269) 927-1000, ext. 5192.

## Student Appeals Committee Hearings

The purpose of a hearing is to provide the opportunity for the campus designee or complainant and the respondent to present all relevant information and evidence with regard to the alleged misconduct. It is the responsibility of the Student Appeals Committee, as applicable, to consider impartially all relevant information and evidence, determine the facts, apply College policy, and impose appropriate sanctions if the respondent is found responsible for the alleged violation.

College judicial hearings are administrative hearings that allow flexibility and are not courts of law. Students may have an advisor from the college community during the hearings, but not an attorney. The advisor cannot speak or ask questions during the hearings or interrupt the procedures in any way. The judicial process is separate and independent from any civil or criminal action and may proceed even if a related matter is anticipated or pending in other forums. Rules of evidence and the criminal standard of proof do not apply. Student Appeals Committee members, as applicable, are expected to find a student or student organization responsible for violations of College policies only if the information shows that it is more likely than not that misconduct occurred.

### Student Appeals Hearing Procedures

Whenever a hearing in front of the Student Appeals Committee is to be held regarding an allegation of misconduct, the campus designee or respondent and the complainant shall be given at least three (3) business days' notice of the charges and the date, time, and place of the hearing. Failure of the respondent to attend the hearing will result in the case being heard in his or her absence.

The order of presentation of the hearing will normally be as follows:

1. Introductions and reading of the charge(s) by the Student Appeals Committee Chair.
2. The campus designee or complainant presents an opening statement.
3. The accused presents an opening statement.
4. The campus designee or complainant presents relevant evidence and witnesses.

5. The accused may question the campus designee or complainant's witnesses.
6. The Student Appeals Committee may question the campus designee or complainant's witnesses.
7. The accused presents relevant evidence and witnesses.
8. The campus designee or complainant may question the witnesses of the accused.
9. The Student Appeals Committee may question the accused's witnesses.
10. The Student Appeals Committee presents any witnesses called by the Student Appeals Committee itself.
11. First the campus designee or complainant and then the accused may question the Student Appeals Committee's witnesses.
12. Any witness may be recalled for further questioning by any participant.
13. The campus designee or complainant presents a final statement.
14. The accused presents a final statement.
15. The Student Appeals Committee deliberates privately and renders a decision.
16. The Student Appeals Committee Chair sends to accused student the decision in writing within seven (7) business days.

The Student Appeals Committee may ask questions of witnesses at any time and also facilitate the presentation of the case. The Student Appeals Committee may call additional witnesses or seek further evidence relating to a case if the Student Appeals Committee member desires clarification or further information.

All hearings shall be closed to everyone except the Student Appeals Committee, appropriate College staff, the respondent, the campus designee or complainant, the observer/recorder selected by the College, and witnesses during the actual time of their testimony. The proceedings of the Student Appeals Committee hearings are presumptively confidential. Unauthorized disclosure of information by any party or witness involved during the hearing process may lead to disciplinary action.

The respondent is entitled to be present at the hearing, to hear and respond to evidence regarding the charges, to present witnesses, and to question witnesses and other evidence.

Witnesses must be members of the College faculty, staff or student body; unless the Student Appeal Committee rules that others may appear in the interest of the case. The respondent and complainant must give the names of all relevant witnesses to the ombudsperson at least two (2) business days before the hearing. The respondent and complainant will have access to the names of all witnesses. It is the responsibility of the respondent and complainant to notify all witnesses of the date, time, and location of a hearing. If a witness fails to appear, the hearing shall be held in his or her absence.

All relevant information will be admissible. It is the responsibility of the respondent and complainant to submit all relevant information to the ombudsperson at least two (2) business days before the hearing. The chair, in consultation with the Student Appeals Committee members, will determine relevance.

All evidence and information presented to the Student Appeals Committee is expected to be truthful, accurate, and complete. Failure to give truthful and complete information at a hearing may result in disciplinary action for a witness.

Following the proceedings, the Student Appeal Committee will meet in a private session to deliberate whether the respondent is responsible or not for the charges based on the Committee's judgment of whether it is more likely than not that misconduct has occurred.

The Student Appeal Committee will not provide input on sanction(s) to the respondent. The Student Appeal Committee's decision shall be based only on evidence presented at the hearing. The Chair will remain in the session as a resource person, but will not participate in the deliberations. The Student Appeal Committee must reach a majority decision, with all members of the Student Appeal Committee voting. The decision of the Student Appeal Committee is final.

## Reinstatement to the College

If a student is dismissed or suspended from one LMC location, that individual is dismissed or suspended from all LMC locations. After the suspension/dismissal period has been met the individual under dismissal or suspension may apply for reinstatement. The suspension/dismissal starts at the time/date of official notification to the student from the vice president, student services or his/her designee.

Prior to returning to campus, the vice president, student services or designee may, if deemed appropriate, require the student to be assessed by an appropriate psychological provider (e.g., licensed clinical mental health counselor, psychologist, psychiatrist, licensed social worker). The purpose of the evaluation is to assure:

1. The student is safe to return to campus and does not pose an immediate harm to him/her or others and is able to adequately care for him or herself.
2. The student is able to function both socially and academically and will not cause any disruption to the community and normal functioning of the College.

The individual must begin the reinstatement appeal process by informing, in writing, the vice president, student services or designee. The letter should include a description of specific goals and supportive steps that the student will implement to help reduce the risk of another episode (or conduct issue) that caused the initial suspension or dismissal from the College. The appeal will be reviewed by the Admission Review Panel and/or the vice president, student services, who will act on the appeal within thirty (30) days of its receipt. The recommendation of the Admission Review Panel and/or vice president, student services will be final. If the reinstatement request is denied, the student may appeal for reinstatement again after an additional five (5) years.

## General Student Complaints

**Student Complaints Concerning Personnel:** Students having a complaint against faculty, staff or administrative offices should first confer with the instructor, staff member or administrator in an effort to informally resolve issues. The College encourages resolution of issues at the informal level, but realizes that may not always be possible. An unresolved complaint may lead to the Student Appeal Committee for

resolution. Also, students who have been suspended or expelled from the College by the vice president, student services or designee may proceed to Step 2B of the Student Appeal Process for Disciplinary Grievances (non-academic). If a student has a complaint and is unable to resolve the complaint they have a right to meet with the vice president, student services or designee

**General Complaints:** Students with complaints regarding College operations not otherwise covered in the prior sections should report their concerns to the vice president, student services or his/her designee. The following procedures shall apply.

### Procedures:

- The vice president, student services or his/her designee will receive a student's verbal or written complaint. The vice president, student services or his/her designee will consider the merit of the complaint and will take any action considered appropriate or necessary. At this level, the student has the right to remain anonymous.
- If the student's verbal or written complaint is not resolved to the student's satisfaction and the student wishes to continue to pursue the complaint, the student must submit a request in writing to the vice president, student services or his/her designee requesting further resolution. The written request must include the specific nature of the complaint, reasons for filing the complaint, and specific remedy requested. At this level, the student may no longer remain anonymous. The vice president, student services or his/her designee will seek a resolution by using the following means:
- Contact the appropriate College employee who is responsible for the College operation complained about and arrange a meeting between the parties involved to discuss a possible resolution. The written complaint will be forwarded to all appropriate parties involved in the conflict prior to the meeting. Should resolution not be reached, the vice president, student services or his/her designee will review the complaint and all supporting material and render a written decision regarding the complaint with rationale.

### Appeal Process:

- In the event the vice president, student services or designee is unable to resolve the complaint; the complaint will be forwarded to the vice president instruction or his/her designee for review and action. The determination of the vice president instruction or designee shall be final. No further appeal will be considered.

### Limitations:

- Student complaints shall not be the basis for any discipline against a supervisor, staff member, or faculty member so long as there is no evidence of unfair treatment of the student or discriminatory practice against the student.

## Institutional Records of Student Complaints

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.

### 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 two-year period. The vice president, 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 Information (Confidential) – Access to and Release Of

Present and former students shall have the right to inspect, review, and challenge the contents of their official records, according to the conditions set forth in the Family Educational Rights and Privacy Act of 1974.

Confidential records of students shall be released only under the following conditions:

1. Written authorization by the student.
2. Pursuant to court order, provided reasonable effort is made to notify the student prior to compliance.

Release of student information considered public information shall not be restricted by the above conditions. Lake Michigan College designates the information the College deems as public in compliance with FERPA rules.

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 student social security numbers to compile certain data for the purpose of instructional program improvement and Perkins and Workforce Investment Act reporting.

## Weapons Free Campus Policy

### A. Purpose

The College wants to ensure a safe, weapon free campus. Unless a person can establish by clear and convincing evidence that the weapon was not knowingly possessed or that the person did not know or have the reason to know that the object was a weapon, violations of this weapons free policy will result in discipline and/or prosecution. Violations can result in expulsion, loss of job, a ban on attending campus facilities and events, and/or criminal prosecution.

### B. Definition

Weapons are defined, simply, as any instruments or implements which are capable of inflicting serious bodily injury, and shall include but not be limited to the following:

- Any gun, rifle, firearm, BB gun, pellet gun, or other device (including starter gun) which is designed to or may readily be converted to expel a projectile by any means.
- Any bomb, grenade, rocket, or other destructive device which includes explosives, incendiaries, or poison gas.
- Any knife with a blade longer than three inches, razor, or other cutting instrument.
- Any striking instrument, to include clubs, iron bar, brass knuckles, blackjack or bludgeon (excluding Athletic Department equipment—i.e., baseball bats).
- Any Martial Arts weapons, to include nunchakus, tonfas, staffs, and throwing stars.
- Any bow and arrow combination.
- Fireworks

Propellant sprays and electric stunning devices may be carried for personal protection and self defense purposes.

### C. Policy

Weapons shall not be permitted in or on College buildings, facilities, grounds, vehicles, or other property at any time, or at any event in which the College participates in or sponsors except for College sponsored theatrical productions. Students, employees or visitors, other than peace officers, may not possess, either on their persons, in their vehicles, or in other College property under their control, weapons while on College property or while participating in College events.

### D. Exceptions

Exceptions to this policy may be granted at the sole discretion of the President.

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**Napier Avenue Campus**

2755 E. Napier Avenue  
Benton Harbor, MI 49022  
269-927-1000

**Bertrand Crossing Campus**

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

**M-TEC<sup>SM</sup> at Lake Michigan College**

400 Klock Road  
Benton Harbor, MI 49022  
269-926-6832

**South Haven Campus**

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



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