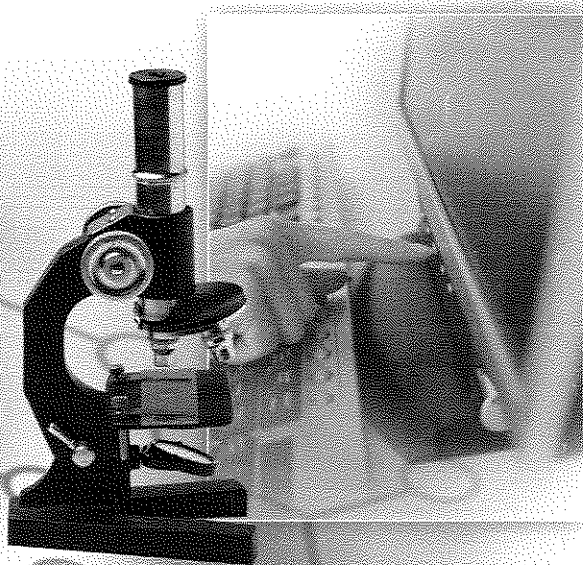
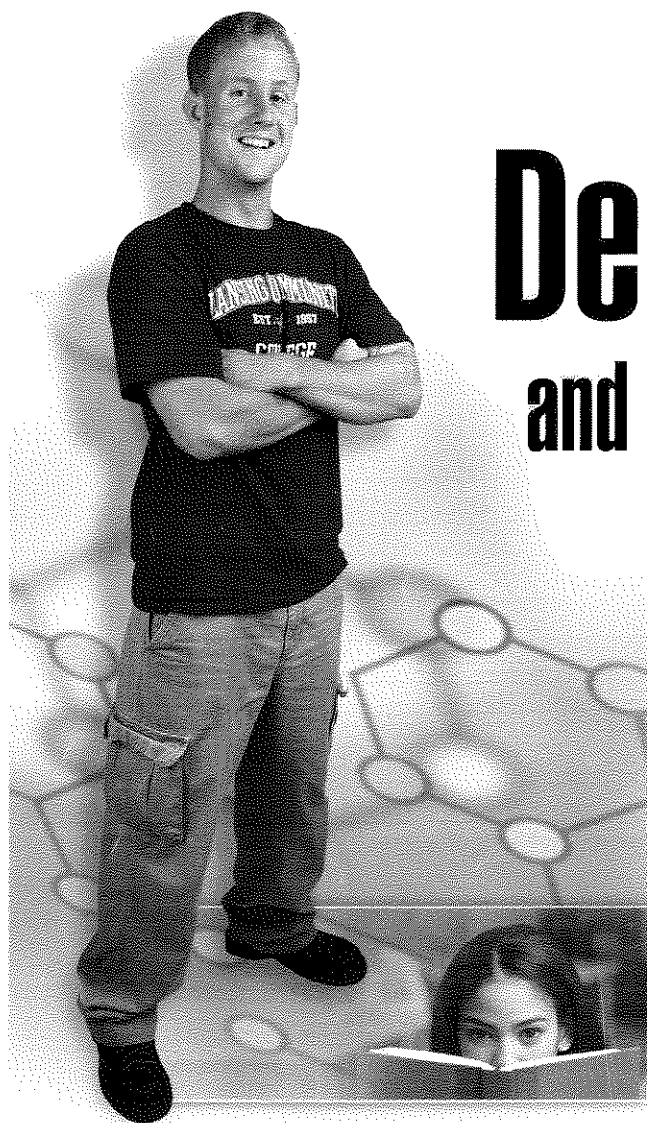



LANSING COMMUNITY COLLEGE

2007-09

# Course Descriptions and General Information



 **LANSING  
COMMUNITY  
COLLEGE**  
*Where Success Begins*

**2 0 0 7 - 2 0 0 9**

**Course Descriptions  
and  
General Information**

400-600 North Washington Square, P.O. Box 40010, Lansing, Michigan 48901-7210  
Information Center (517) 483-1957 or 1-800-644-4522 • 24-hour-a-day assistance (517) 483-1111  
Office of Disability Services teletypewriter, TTY (517) 483-1207  
World Wide Web: [www.lcc.edu](http://www.lcc.edu)

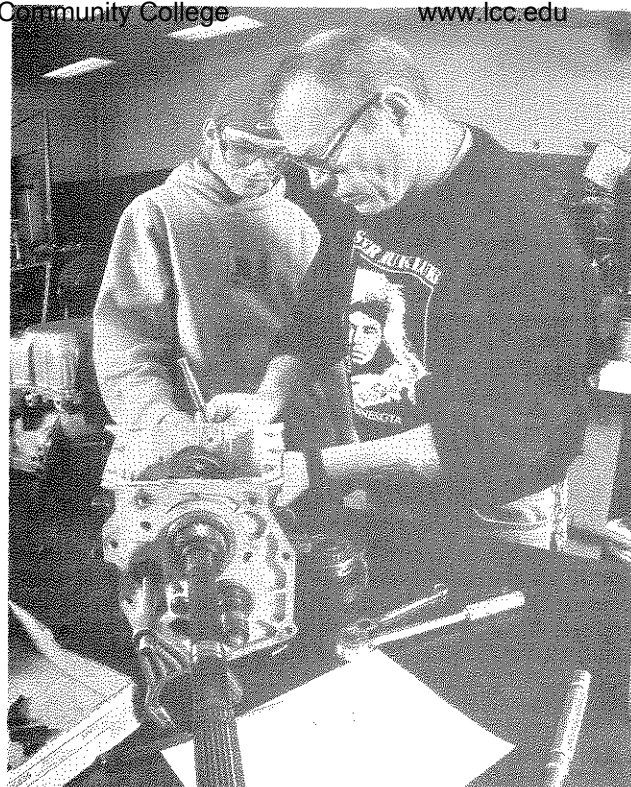
**Accredited by North Central Association - The Higher Learning Commission**



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Please keep this catalog as a reference to the learning opportunities available at Lansing Community College. Education is a lifelong process, and LCC continues to be a resource for its students throughout the nation and the world. Success begins at LCC, but continued success enriches for an entire lifetime.



## LCC STATEMENTS OF PURPOSE

Statements of Purpose consist of the College's Vision, Mission, Motto, and Guiding Principles:

### VISION:

Serving the learning needs of a changing community.

### MISSION:

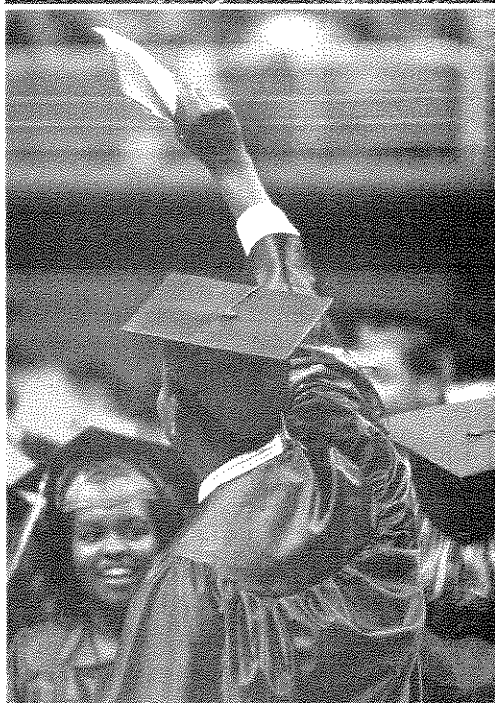
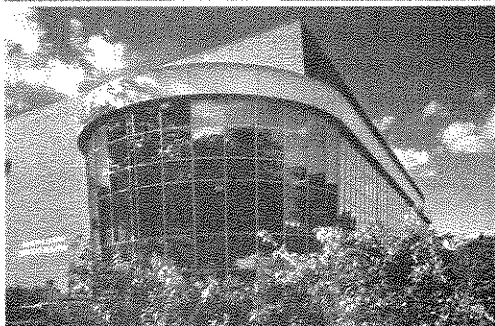
LCC exists so that the people it serves have learning and enrichment opportunities to improve their quality of life and standard of living.

### MOTTO:

Where Success Begins

### GUIDING PRINCIPLES:

1. LCC will be a "Comprehensive Community College," focused upon offering learning opportunities in four areas: career and workforce development, general education, developmental education, and personal enrichment.
2. LCC will have a careers emphasis and, in support of this, maintain a technology-rich environment, fostering "user-" vs. classroom-level information technology skills.
3. LCC will maintain and support a well-qualified, committed, and competitively compensated faculty and staff who use both proven traditional and progressive student-centered learning approaches.
4. LCC commits to *continuous improvement* in its programs and services and will maintain high expectations of its students.
5. LCC will be flexible, affordable, and accountable, continuously improving student learning and support services through the assessment of measurable outcomes.
6. LCC will strive to be "state of the art" in all that it does, while pursuing a select number of cutting-edge initiatives.
7. LCC will have a local emphasis in allocating its resources, while maintaining vital connections to the world, culturally and technologically.
8. LCC, within its broader purpose of serving its entire community in diverse ways, recognizes a special responsibility to young adults, those from lower income brackets, and those requiring developmental academic or entry-level career skills.
9. LCC seeks cooperative relationships with both private and public organizations, pursuing growth not as an end in itself but only when it best serves student and community needs.
10. LCC will prepare those it serves to thrive in a diverse world by reflecting that diversity in its student enrollment, staffing, planning, and allocation of resources.
11. LCC will manage its finances in a responsible manner; allocating resources and achieving efficiencies to best serve the priority needs of its student and the taxpayers who support its operation.
12. LCC is a dedicated community member working for the betterment of all.



Lansing  
Community  
College

**BOARD  
OF  
TRUSTEES**



Chris A. Lavery,  
Chairperson



Kathy G. Pelleran,  
Vice Chairperson



Robert E. Proctor,  
Secretary/Treasurer



Mark H. Canady,  
Trustee



Jerry L. Hollister,  
Trustee



Thomas Rasmusson,  
Trustee



Robin M. Smith,  
Trustee

The Board of Trustees abides by the Open Meeting Act which allows opportunities for student and/or public comments.

## MESSAGE FROM THE PRESIDENT

*Welcome to Lansing Community College!*

*Whether you are learning new career skills, preparing to transfer to a four-year institution, or developing a personal interest, all of us at LCC are committed to meeting your needs and helping you accomplish your goals.*

*Lansing Community College is one of the nation's most respected higher education institutions. Our state-of-the-art technology, diverse course offerings and highly trained faculty and staff are ready to help you develop your talents and skills in the academic area of your choice.*

*Each year, over 31,000 students enroll in more than 320 degree and certificate programs and over 1700 different courses. New classrooms, buildings, and renovated instructional space provide a quality environment to learn and succeed in the workforce and in our community. Our main campus is located in the heart of downtown Lansing, a few blocks from the State Capitol. Our new Health and Human Services Building, Administration Building, and renovations in the Arts & Sciences and Gannon Buildings are transforming the campus to better serve students. In addition, West Campus is home to our technical and public service career training. West Campus also has a Michigan Technical Education Center for customized training, a fitness center, and corporate conference facilities.*

*LCC has more than 20 convenient learning centers throughout mid-Michigan, including the Clinton County Center in St. Johns, the Livingston County Center in at the newly-opened Parker High School in Howell, and the LCC East Center in East Lansing.*

*LCC is also a leader in on-line education. Each semester thousands of students enroll in our virtual classes. Additionally, LCC partners with other higher education institutions through the new University Center, where students can complete any of over thirty-five baccalaureate degree programs.*

*While at LCC, I encourage you to get involved in the college experience. Whether it is on a sports team, involved in a volunteer opportunity, or participating in a cultural program, learning takes place in a variety of settings at LCC. Many extracurricular activities are designed to provide hands-on experience to prepare students for their chosen professions. Student success and achievement are our focus at Lansing Community College.*

*We offer a quality education that is convenient, affordable, accessible, and one that meets your needs. Join us at Lansing Community College...Where success begins.*



**Dr. Judith Cardenas**  
President  
Lansing Community College



# General Information



# DIRECTORY OF DEPARTMENTS

(Area Code 517)

www.lcc.edu

## Business & Community Institute

(WCB M105)  
 Capital Quality Initiative (CQI) . . . . . 483-1363  
 JET/Work First . . . . . 483-1393  
 Workforce Performance Solutions . . . . . 483-1857

## Business, Media, and Information Technologies Division

**Business Department (GB 190)** . . . . . 483-1522  
 Accounting . . . . . 483-1522  
 Administration . . . . . 483-1522  
 Financial Institutions . . . . . 483-1522  
 Hospitality Management and Food Service . . . . . 483-1522  
 Insurance . . . . . 483-1522  
 Legal Assistant/Paralegal . . . . . 483-1522  
 Management . . . . . 483-1522  
 Marketing . . . . . 483-1522  
 Real Estate . . . . . 483-1522

## Media, Art, and Information Technologies Department (GB 131)

Art, Design and Multimedia . . . . . 483-1546  
 Computer Information Technology . . . . . 483-1546  
 Computer Support Repair and Electronics . . . . . 483-1546  
 Media Technology . . . . . 483-1546  
 Motion Picture Production and Direction . . . . . 483-1546  
 Photographic Imaging Technology . . . . . 483-1546

## Human, Health & Public Service Careers Division

**HHS Continuing Professional Educ (HHS 103)** . . . . . 483-9680

## Health & Human Services Department (HHS 108)

Child Development and Early Education . . . . . 483-1410  
 Dental Hygiene (HHS 107) . . . . . 483-1457  
 Diagnostic Medical Sonography . . . . . 483-1410  
 Gerontology/Aging . . . . . 483-1410  
 Human Services/Social Work . . . . . 483-1410  
 Radiologic Technology . . . . . 483-1410  
 Surgical Technology . . . . . 483-1410  
 Therapeutic Massage . . . . . 483-1410

## Nursing Careers Department (HHS 108)

Community Health Services . . . . . 483-1410  
 Nursing . . . . . 483-1410

## Public Service Careers Department (WCB M127)

Corrections . . . . . 483-1570  
 Criminal Justice/Law Enforcement . . . . . 483-1570  
 Emergency Medical Technology (HHS 108) . . . . . 483-1570  
 Fire Science . . . . . 483-1570  
 Paramedic (HHS 108) . . . . . 483-1570  
 Police Academy . . . . . 483-1570

## Liberal Studies Division

**Office of Instruction (A&S 110)** . . . . . 483-1010  
 Reserve Officer's Training Corps (ROTC) . . . . . 483-1010  
 Office of Teacher Preparation . . . . . 483-1010  
 2+2+2 Engineering Program . . . . . 483-1010  
 Honors Program (A&S 211) . . . . . 483-1040

## Communication (A&S 211)

Foreign Language . . . . . 483-1040  
 Linguistics . . . . . 483-1040  
 Sign Language . . . . . 483-1040  
 Speech . . . . . 483-1040  
 Writing/Journalism . . . . . 483-1040

## Humanities & Performing Arts (A&S 255)

Humanities (Art History, English/Literature, History, Humanities, Philosophy, Religion) . . . . . 483-1018  
 Performing Arts (Dance, Music, Theater) . . . . . 483-1018  
 Stage Technology . . . . . 483-1487

## Math & Computer Science (A&S 301)

Applied Math . . . . . 483-1087  
 Computer Science . . . . . 483-1087  
 Statistics . . . . . 483-1087  
 Transfer Math . . . . . 483-1087

## Physical Fitness & Wellness (GB 351)

Aquatics . . . . . 483-1227  
 Cardiac Rehab/Adult Fitness . . . . . 483-1227  
 Fitness/Physical Conditioning . . . . . 483-1227  
 Individual & Team Sports . . . . . 483-1227  
 Kinesiology/Health and Wellness . . . . . 483-1227

## Science (A&S 301)

Biology/Molecular Biology . . . . . 483-1092  
 Chemistry/Nanotechnology . . . . . 483-1092  
 Geology . . . . . 483-1092  
 Integrated Science . . . . . 483-1092  
 Physics/Astronomy . . . . . 483-1092

## Social Sciences (A&S 301)

Economics . . . . . 483-1126  
 Education/Teacher Education . . . . . 483-1126  
 Geography . . . . . 483-1126  
 Political Science/Government . . . . . 483-1126  
 Psychology . . . . . 483-1126  
 Sociology/Anthropology . . . . . 483-1126

## Student and Academic Support and Strategic Enrollment Management

**Office of Instruction (SPS 230)** . . . . . 483-1162

## Assessment Center (GB 200)

Online Testing Support Office . . . . . 267-5503  
 Certification Information Line . . . . . 483-9665  
 Waiver Information Line . . . . . 483-1216

## Athletics (GB 460)

483-1610

## Center for Employment Services (GB 218)

483-1172

## Counseling & Advising Center (GB 204)

Academic Advising . . . . . 483-1904  
 Personal and Career Counseling . . . . . 483-1904  
 Disability Support Services . . . . . 483-1904  
 TTY . . . . . 483-1207  
 Limited English Proficiency Prog . . . . . 483-1904  
 Returning Adult Program . . . . . 483-1199  
 Student Orientation . . . . . 483-1904  
 TRIO . . . . . 483-1904  
 Women's Resource Center . . . . . 483-1199

## Enrollment Services (GB 203)

Admissions . . . . . 483-1200  
 Financial Aid . . . . . 483-1200  
 Office of the Registrar . . . . . 483-1200  
 Recruitment and Outreach . . . . . 483-1200  
 Veterans' Services . . . . . 483-1200  
 Welcome Center (GB 221) . . . . . 483-1957  
 Welcome Center (WCB M107) . . . . . 267-5452  
 Toll Free . . . . . 1-800-644-4522

## Language Skills Department (A&S 253)

English for Speakers of Other Languages Program . . . . . 483-1061  
 Language Skills Learning Center . . . . . 483-1060  
 Reading Program . . . . . 483-1061  
 Student Development Program . . . . . 483-1061  
 Writing Program . . . . . 483-1061

## Learning Assistance Department (TLC 210)

483-1647  
 Library (TLC200) . . . . . 483-1657  
 Tutoring Services (A&S 103) . . . . . 483-1206

## Mathematical Skills Department (A&S 309A)

483-1073  
 Math Lab (A&S 309) . . . . . 483-1073

## Media Services (TLC 123)

483-1670  
 WLNZ-FM (TLC 001) . . . . . 583-1710

## Student Life and Leadership (GB 230)

483-1285  
 The Lookout (SPS 208) . . . . . 483-1288

## Technical Careers Division

### Apprenticeships Programs (WCB M103)

483-1031

## Environmental, Design & Building Technologies (WCB M103)

Agriculture . . . . . 483-1107  
 Architecture . . . . . 483-1627  
 Building Trades . . . . . 483-1361  
 Civil Technology . . . . . 483-1335  
 Fashion Technology . . . . . 483-9679  
 Geographic Information Systems . . . . . 483-1335  
 Horticulture . . . . . 483-1107  
 Interior Design . . . . . 483-9679  
 Landscape Architecture . . . . . 483-1107

## Manufacturing Engineering Technologies (WCB M103)

483-1339  
 Alternative Energy Engineering Technology . . . . . 483-1339  
 Electrical Technology . . . . . 483-1360  
 Heating, Refrigeration & Air Conditioning . . . . . 483-1404  
 Manufacturing Engineering Technology - Design . . . . . 483-1343  
 Manufacturing Engineering Technology - Machining . . . . . 483-1343  
 Manufacturing Engineering Technology - Systems . . . . . 483-1343  
 Welding Technology . . . . . 483-9682

## Transportation Technologies (WCB M103)

267-6406  
 Automotive . . . . . 267-5880  
 Aviation Flight/Ground (Airport) . . . . . 483-1406  
 Aviation Maint/Powerplant/Avionics (Airport) . . . . . 483-1406  
 Collision Repair/Auto Body . . . . . 267-5880  
 Heavy Equipment Repair/Operator . . . . . 267-5880  
 Truck Driver Training (Fort Custer, Battle Creek) . . . . . (877) 544-3126

**Cash Operations (GB 214)** . . . . . 483-1272

## Center for International and Intercultural Education (GB 212)

483-1006

## Extension and Community Education (Learning Centers)

483-1860

## Police & Public Safety

Public Safety (GB 251) . . . . . 483-1800  
 TDD . . . . . 483-9916

## Small Business & Technology Development Center (SBTDC)

483-1921

## Star Card and Parking Services (GB 215)

483-1498



**ACADEMIC CALENDAR**

Information about important dates related to semester breaks, holidays, registration, financial aid distribution, etc., is available online at [www.lcc.edu/calendar.html](http://www.lcc.edu/calendar.html) or call the LCC Information Center at (517)-483-1957 or toll-free at 1-800-644-4522.

In addition, registration information and dates are published in the Course Schedule each semester.

**Summer Semester 2007**

Classes Begin	June 6
Independence Day	July 4
Last Class Day	August 1

**Fall Semester 2007**

Classes Begin	August 23
Labor Day	September 3
Thanksgiving	November 22 – 25
Last Class Day	December 16

**Spring Semester 2008**

Classes Begin	January 12
Martin Luther King, Jr. Holiday	January 21
Spring Break	March 1 – 7
Graduation	May 9
Last Class Day	May 9

**Summer Semester 2008**

Classes Begin	June 6
Independence Day	July 4
Last Class Day	August 1

**Fall Semester 2008**

Classes Begin	August 21
Labor Day	September 1
Thanksgiving	November 27 – 30
Last Class Day	December 14

**Spring Semester 2009**

Classes Begin	January 10
Martin Luther King, Jr. Holiday	January 19
Spring Break	March 7 – 13
Graduation	May 8
Last Class Day	May 8

**Summer Semester 2009**

Classes Begin	June 5
Independence Day	July 3
Last Class Day	July 31

# POLICIES, PROCEDURES, AND REGULATIONS

## ADMISSIONS INFORMATION

### GENERAL ADMISSION CRITERIA

Lansing Community College is an open-door community college designed to extend service to applicants possessing appropriate preparation to benefit from programs and courses offered at the College. Determination and judgment of an individual's preparation and readiness to benefit from a course or program at Lansing Community College is the responsibility of the College's professional personnel.

Persons who are 18 years of age or older or who have graduated from high school are eligible to attend Lansing Community College. Persons who are under 18 years of age, enrolled in high school, and working to fulfill high school graduation requirements may be admitted to LCC under the *Dual Enrollment* or *Special Admission Program* explained later in this section. Nonpublic home school applicants who are 14 years of age or older may be admitted under the *Nonpublic Home School Program* explained later in this section. Admission to the College does not guarantee admission to a particular program or class.

### GENERAL ADMISSION PROCEDURES

#### Procedures for Completing the Admissions Application

1. Complete all items requested on the application for admission.
2. International applicants must follow the procedures outlined under *International Applicants*.
3. Applicants in high school must follow the procedures outlined under *Dual Enrollment Program* or *Special Admission Program*.
4. Nonpublic home school applicants must follow the procedures outlined under the *Nonpublic Home School Program*.
5. Guest students must follow the procedures outlined under *Guest and International Guest Applicants*.

Applicants may mail, fax (517) 483-1170, or bring applications to the Enrollment Services office located in Room 203, Gannon Building. Items should be mailed to: Enrollment Services, Lansing Community College, PO Box 40010, Lansing, MI 48901-7210. For additional information call (517) 483-1200. Applicants may also submit an online application via the internet at our web address [www.lcc.edu/admissions/general/procedures/](http://www.lcc.edu/admissions/general/procedures/). Applicants who are admitted to LCC will receive notification and information regarding registration procedures. Applicants denied admission will receive a letter stating the reason for denial and explaining the appeal process (see *Appeal Process for Denial of Admission*).

### ACADEMIC ASSESSMENT AND PLACEMENT TESTING FOR STUDENT SUCCESS

#### General Information

Lansing Community College cares about student success and believes that strong basic academic skills are the student's passport to achieving school and job success. The following basic skill areas are particularly important: reading, writing, mathematics, computing, communicating, critical thinking, and study skills.

Many courses at LCC have minimum skill level requirements in reading, writing, and/or mathematics. These levels must be met before a student will be permitted to enroll in those courses. Skill levels are listed along with other prerequisites required for each course in the *Lansing Community College Catalog*, the *Course Schedule*, and on the College's World Wide Web home page [www.lcc.edu](http://www.lcc.edu). Students meet these skill prerequisites either by achieving the required scores on placement tests or successfully passing specific courses at LCC. (See *Other Options to Meet Skill Prerequisites* in this section for other alternatives.) Students who have attended LCC previously may need to take or retake one or more of the placement tests. An advisor or counselor can determine if this is needed. Student orientation is available at [www.lcc.edu/orientation](http://www.lcc.edu/orientation), or by calling 483-1904. New students should complete all assessment testing prior to completing orientation.

The department offering the course determines any exceptions to prerequisites or skill levels.

#### What the Tests Are Like

Reading, writing, and most mathematics tests are administered on computers. The tests are adaptive and each item's difficulty is based on the student's response to the preceding question. The tests are not timed. The average amount of time spent on a test is about 30 minutes, so students should allow about two hours for all skill placement tests. The results of the tests are available immediately.

#### Where Testing Centers Are Located

Placement testing is available on-campus in the Assessment Center, Room 200, Gannon Building. For testing hours and information call (517) 267-5500. Placement tests are also available at off-campus locations. Contact the LCC Extension and Community Education Office at (517) 483-1860, or the West Campus at (517) 267-5510 for more information. Students, who live more than 60 miles from the main campus, can also make arrangements to take the placement tests with a pre-approved proctor in their area. Contact the Online Office of the Assessment Center at (517) 267-5503 or visit [www.lcc.edu/assessment](http://www.lcc.edu/assessment) to make arrangements for an off-campus proctor.

#### Other Options to Meet Skill Prerequisites

Placement tests can be waived under certain circumstances. To see if you have other test scores, completed courses, or degrees that may qualify for a waiver, please visit the Advising-Waiver Team Homepage at [www.lcc.edu/advising/waivers.htm](http://www.lcc.edu/advising/waivers.htm) for detailed information on how to obtain a waiver. The Waiver Team also provides a centralized e-mail [waiver\\_requests@lcc.edu](mailto:waiver_requests@lcc.edu), a voicemail line at (517) 483-1216, and a fax line at (517) 483-1313.

#### Academic Advising for Student Success

Academic advisors and counselors are available to provide information on assessment results, prerequisites, degree requirements, and transfer options and requirements. Advisors and counselors also help students plan class schedules, discuss curriculum choices and career options, and provide academic and personal support. Students are encouraged to confer with an advisor or counselor prior to their first semester and each semester thereafter.

Departments offer specific program advising within the department offices. For general advising contact the Counseling and Advising Center located in Room 204 of the Gannon Building, or call (517) 483-1904, or send an e-mail to [eadvising@lcc.edu](mailto:eadvising@lcc.edu). Academic advising is also available at off-campus locations. Contact the LCC Extension and Community Education office at (517) 483-1860, or West Campus at (517) 267-5510 for more information about off-campus advising options.

### SPECIAL PROGRAM/SPECIAL CIRCUMSTANCE ADMISSION

#### Selective Admission Programs

The programs listed in this section are selective admission programs. Admission to selective admission programs is on a competitive basis, and these programs have program admission requirements beyond those required for admission to the College. Admission to Lansing Community College does not guarantee admission to a selective admission program. Students wishing to apply for admission to a selective admission program should contact the Enrollment Services Office for further information by calling (517) 483-1254, (517) 483-1256, or by writing 1121-ENROLLMENT SERVICES OFFICE, LANSING COMMUNITY COLLEGE, PO BOX 40010, LANSING, MI 48901-7210.

- Dental Hygienist Program, Associate in Applied Science
- Diagnostic Medical Sonography, Associate in Applied Science
- Fire Academy, Certificate of Completion
- Mid-Michigan Police Academy, Certificate of Completion
- Nursing, LPN Option, Certificate of Achievement
- Nursing, RN Option, Associate in Applied Science
- Nursing, LPN/Paramedic to RN Completion, Associate in Applied Science

- Paramedic, Certificate of Achievement
- Radiologic Technology Program, Associate in Applied Science
- Surgical Technology, Certificate of Achievement, Associate in Applied Science

### International Applicants

International student admission procedures have been developed to create a positive experience for the international student, the service community, and the College community. Admissions requirements for international students are in compliance with the Student Exchange and Visitor Information System (SEVIS) as regulated by the U.S. Citizenship and Immigration Services (USCIS). In accordance with USCIS regulations, any individual who is not a United States citizen and who has been admitted to the United States in a temporary, nonresident status will be classified as an international student at Lansing Community College. Individuals who have refugee, immigrant, or resident alien status are not international students.

The visa classification of each international applicant determines the admission requirements and the attendance regulations applied to the applicant. For details on the requirements for international admission, the applicant should refer to the International Student Admissions Application Packet. To request the application packet, contact 1121-ENROLLMENT SERVICES, LANSING COMMUNITY COLLEGE, PO BOX 40010, LANSING, MI 48901-7210. International students may also visit the web site [www.lcc.edu/admissions/interstu/](http://www.lcc.edu/admissions/interstu/).

Admission to the College for all visa categories requires applicants to: (1) be at least 18 years old and (2) provide additional documents as required by the applicant's USINS visa classification.

International students who would like copies of documents submitted to Lansing Community College for admission purposes must request these copies no later than one year after the last semester of attendance in international student status with the College. Lansing Community College does not keep such documents beyond legally required time limits.

Admission to LCC as an international student will be considered after receipt of the application and all required documents. Applicants outside the United States are advised to apply as early as possible to allow for mail delays, to obtain visas and exit permits, and to make travel arrangements. The College must receive all admission material from applicants outside the United States no later than ten weeks prior to the first day of international student orientation for the semester of attendance. (March 1 is the deadline for Summer session; May 1 is the deadline for Fall semester; October 1 is the deadline for Spring semester.)

The Enrollment Services Office will provide to admitted applicants information regarding USINS regulations, academic advising, and College policies governing international students. Prior to registering for classes, international students will be asked to take tests administered to the general College population. If evaluation of these tests indicates a need for improvement of English language skills, the student will be required to enroll in appropriate language courses. Students accepted to LCC as F-1 and M-1 visa holders, must be enrolled in a declared program of study, and must work toward the completion of that program by maintaining a 2.0 g.p.a. and a full-time course of study each semester.

### Dual Enrollment Program

This program is designed to provide an opportunity for qualified high school juniors and seniors to earn college credit. High school credit may or may not be granted according to the discretion of the participating high school. Dual enrollment affords students educational enrichment in specific areas where unusual ability and interest are displayed, especially in courses and academic areas not available in the students' high school. Note: Some colleges/universities will not allow credit for college courses used to meet high school graduation requirements.

### Qualifications for the Dual Enrollment Program

Applicants must:

1. Be working toward high school graduation requirements;
2. Have attained junior or senior high school standing prior to applying for the program.

### Application Procedures for the Dual Enrollment Program

Applicants must:

1. Complete a College application;
2. Submit written approval from their authorized high school official each semester of attendance;
3. Submit written consent from a parent or guardian and provide a FERPA release.
4. Mail or bring the application and letter of authorization to the LCC Enrollment Services Office prior to enrolling in classes. Applicants may also submit an online application via our web address [www.lcc.edu/admissions/general/procedures/](http://www.lcc.edu/admissions/general/procedures/).
5. Comply with basic skills assessment and any additional approvals or prerequisites established by the department for the course(s) in which the student wishes to enroll.

(See *Appeal Process for Denial of College Admission* for appeal procedures.)

### Special Admission Program

This program is designed to provide an opportunity for qualified high school freshmen and sophomores to earn college credit. High school credit may or may not be granted according to the discretion of the participating high school. The Special Admission Program affords students educational enrichment in specific areas where unusual ability and interest are displayed, especially in courses and academic areas not available in the student's high school. Note: Some colleges/universities will not allow credit for college courses used to meet high school graduation requirements.

### Qualifications for the Special Admission Program

Applicants must:

1. Be working toward high school graduation requirements;
2. Have attained freshman or sophomore high school standing prior to applying for the program.
3. Have attained 14 years of age by December 1 of the student's freshman year.

### Application Procedures for the Special Admission Program

Applicants must:

1. Complete a Special Admission Supplemental Application for each class in which the student intends to enroll each semester of attendance;
2. Submit an official high school transcript each semester of attendance;
3. Obtain written consent from the student's parent/guardian and his/her authorized high school official each semester.
4. Mail or bring the Special Admission Supplemental Application(s) and transcript to the LCC Enrollment Services Office prior to enrolling in classes.
5. Comply with basic skills assessment and any additional approvals or prerequisites established by the department for the course(s) in which the student wishes to enroll.

Special admission is contingent upon receiving departmental/divisional approval for each class for which the student intends to enroll.

(See *Appeal Process for Denial of College Admission* for appeal procedures.)

### Nonpublic Home School Program

The Nonpublic Home School Program is designed for students who are at least 14 years old and attend a nonpublic home school. This program is provided to supplement the student's educational plan and to afford educational enrichment in courses and academic areas not available in the student's home school setting.

### Qualifications for the Nonpublic Home School Program

Applicants must be at least 14 years of age prior to applying for the program.

### Application Procedures for the Nonpublic Home School Program

1. Applicants 16 and 17 years of age must complete an LCC Nonpublic Home School Program Application each semester. Applicants 14 or 15 years of age must obtain department/division approval and complete an LCC Nonpublic Home School Program Application for each course in which the student wishes to enroll each semester.
2. Written consent from the student's parent/guardian and approval from the home school provider is required on the application.
3. Applicants must meet with a Counselor to discuss the student's educational plan.
4. All students must comply with basic skills assessment and any additional approvals or prerequisites established by the department for the course(s) in which the student wishes to enroll.
5. Applicants must mail or bring the completed application to the LCC Enrollment Services Office prior to enrolling in classes.

(See *Appeal Process for Denial of College Admission* for appeal procedures.)

### Guest Applicants

Guest applicants must:

1. Obtain a guest application from the Registrar's Office of the student's primary college;
2. Mail or bring the guest application to the Enrollment Services Office prior to enrolling in classes.

(See *Appeal Process for Denial of College Admission* for appeal procedures.)

### APPEAL PROCESS FOR DENIAL OF COLLEGE ADMISSION

Applicants who meet minimum requirements and are denied admission to the College may appeal the denial. The decision to admit or uphold denial of admission will be based upon the individual merits of the appeal. Appeals submitted with insufficient time to complete the appeal process (eight working days) by the first day of class will be reviewed for the following semester. The appeal process shall consist of the following steps:

#### STEP 1: Admissions Staff Member

If an Admissions staff member denies admission to an applicant, the Admissions staff member shall provide the applicant with a copy of the appeal process. If the applicant wishes to appeal the denial, the staff member shall arrange an appeal meeting with the Director of Admissions/Registrar within two working days of the denial.

#### STEP 2: Director of Admissions/Registrar

(If the Director of Admissions/Registrar originally denied admission, the applicant may move directly to Step 3 of the appeal process.) The applicant must submit his or her appeal in writing to the Director of Admissions/Registrar at least one working day prior to the appeal meeting. A decision shall be communicated to the applicant within two working days of the appeal meeting and provide the applicant with a written copy of the decision. If the appeal is denied, the Director of Admissions/Registrar shall discuss Step 3 of the appeal process with the applicant. If the applicant wishes to appeal the denial, the Director of Admissions/Registrar shall assist the applicant in contacting the Appeals Coordinator.

#### STEP 3: The Board of Appeals

The Appeals Coordinator shall convene the Board of Appeals within three working days of the applicant's appeal to the Board and advise the applicant of the date, time, and location of the appeal meeting. The Board of Appeals Chairperson shall notify the applicant of the Board's decision within three working days from the date of the applicant's appeal meeting and shall provide the applicant with a written copy of the decision. The Board of Appeals shall consist of the following members:

- A. Dean of the Student and Academic Support Division (or his or her designee)

- B. A member of the teaching faculty
- C. A counselor
- D. Appeals Coordinator or his or her designee (as recorder and non-voting member)

The appeals process for international students shall have the following modification in membership:

- STEP 1: International Admissions Specialist or his or her designee
- STEP 2: Enrollment Services Administrator
- STEP 3: Board of Appeals

The International Student Board of Appeals shall consist of the following members:

- A. The Dean of Student and Academic Support (Chairperson) or his or her designee
- B. A member of the teaching faculty
- C. Bilingual Coordinator or Director, Center for International and Intercultural Education.
- D. Appeals Coordinator or his or her designee (as recorder and non-voting member)

The decision of the Admissions Board of Appeals is final and will be reached by simple majority vote. A copy of the Board of Appeals decision shall be maintained in the Enrollment Services Office for two years.

### HOUSING

Lansing Community College maintains no housing units for students, nor does it enter into third party contracts or supervise off-campus housing. However, the Student Life and Leadership Office offers a housing resource listing service. This service provides current available listings of Lansing area housing for sharing, sale, or lease. LCC is not involved with any contract negotiations between the landlord and the tenant. LCC is not responsible for any disputes, breaches of contract, eviction notices or any civil actions that may arise between the landlord and the tenant. The college has not inspected, approved or disapproved any of the facilities listed; and therefore can accept no responsibility for listings.

For more information, contact the Student Life and Leadership Office at (517) 483-1285, or visit Room 230, Gannon Building. There is no fee for this service.

## FINANCIAL ASSISTANCE INFORMATION

The Student Financial Aid Office in Enrollment Services at Lansing Community College is committed to providing students with financial resources for higher education. An objective method of need determination approved by the federal government is used to award need-based programs. Some scholarships are available based on academic achievement or talent, and low-interest loan programs are also available.

Students are eligible to apply for financial assistance if they have graduated from high school, have completed a GED, or have demonstrated, through testing, the ability to benefit from courses or programs at Lansing Community College. They must enroll in LCC programs of study leading to an approved educational credential and must be a U.S. citizen or eligible noncitizen. A student enrolling in a program of study abroad that is approved for credit by Lansing Community College is eligible for federal student financial aid consideration.

Students who served, are serving or are dependents of those who were 100% disabled while serving in the U.S. Armed Forces are eligible to activate their benefits through LCC. Please see "Veterans Information" for additional information.

### SOURCES OF FINANCIAL AID

Financial aid programs are funded from federal, state, college, and private sources. The four major sources of financial aid are scholarships, grants, loans, and work-study employment. Most students receive a com-

bination of these forms known as a financial aid "package." Need-based programs require the submission of the Free Application for Federal Student Aid (FAFSA). Please see "How and When to Apply."

### Scholarships and Awards

Resources that do not have to be paid back, usually awarded for academic achievement or talent, that may or may not be based on need.

- Board of Trustees Awards are awarded to outstanding district high school graduates. One recipient each year is selected by each in-district high school.
- Divisional Awards are awarded to outstanding students who are residents of the district and who apply directly to the College division or department in which the student wishes to study. Students may contact the Student Financial Aid Office in Enrollment Services for a Lansing Community College Scholarship application book.
- Athletic Scholarships are awarded through the Athletic Department. Talented athletes should contact coaches in their respective sport areas.
- Michigan Competitive Scholarships are based upon a qualifying ACT examination given during the junior and senior years in high school. Students may receive an "honorary" award not based on need or a monetary award based upon need.
- Private Scholarships are available through the College or private organizations. Please contact the Student Financial Aid Office in Enrollment Services for a LCC Scholarship application book and information about private scholarships, grants, loans, employment, and college transfer scholarships available to LCC students.
- Foundation Scholarships are provided through the Lansing Community College Foundation Office.
- Michigan Merit Award Scholarships are based upon successful completion of all relevant sections of the Michigan Educational Assessment Program (MEAP test) for high school seniors graduating prior to July 1, 2007, or upon successful completion of all relevant sections of the Michigan Merit Exam (MME) for high school seniors graduating after July 1, 2007.
- Michigan Promise Scholarships are available to Michigan high school students, beginning with the graduating class of 2007, who achieve qualifying scores on the State Assessment Test or complete two years of post-secondary education with at least a 2.5 GPA.

Additional information on these as well as a free scholarship search service is available at [www.lcc.edu/finaid/](http://www.lcc.edu/finaid/).

### Grants

Money that does not have to be paid back, usually based upon need. (Also see Repayment of Grants and Financial Aid Refunds/Withdrawals/Return to Title IV.)

- Federal Pell Grants are based on need and range from \$400 to \$4,050 (subject to change).
- Federal Supplemental Educational Opportunity Grants (FSEOG) are awarded to high-need students who receive Federal Pell Grants.
- Academic Competitiveness Grants (ACG) are awarded to full-time students who are U.S. citizens, eligible for a Federal Pell Grant, and who had successfully completed a rigorous high school program, as determined by the state or local education agency and recognized by the Secretary of Education.
- Michigan Educational Opportunity Grants (MEOG) are awarded to high-need students who have been Michigan residents for at least 12 consecutive months.
- Michigan Adult Part-time Grants (MAPTG) are awarded to self-supporting, part-time (3-11 credits), high-need students who have been out of a high school program for at least two years and who have been Michigan residents for at least 12 consecutive months.

- Michigan Tuition Incentive Program (TIP) pays in-district community college tuition and fees for students from low-income families who meet the basic criteria and low-income financial guidelines. Eligible students must be U.S. Citizens and residents of Michigan according to institutional criteria, must be under 20 years of age, and must apply for certification to the State of Michigan prior to graduation from high school or completing the General Education Development (GED) Certificate.
- Lansing Community College grants are awarded to high-need students on a funding-available basis.
- Lansing Community College's Women's Resource Center Grants are available for tuition and child care for displaced homemakers and special populations. Students apply through the Women's Resource Center in the Counseling and Advising Center, room 204 Gannon Building, (517) 483-1207 or (517) 483-1904.

### Loans

Money that must be repaid beginning six months after graduation or enrollment of less than half-time (six credits), with the exception of the PLUS loans, which must begin repayment sixty (60) days after the final disbursement, and alternative loans, which begin repayment in accordance with the promissory note signed by the borrower. (Also see Financial Aid Refunds/Withdrawals/Return to Title IV.)

- William D. Ford Federal Direct Student Loan Program includes both Subsidized and Unsubsidized Student Loans and the Parent Loan for Undergraduate Students (PLUS). Specific guidelines pertaining to eligibility and the application process are available in the Enrollment Services/Student Financial Aid Office.
  1. Subsidized and Unsubsidized William D. Ford Direct Stafford Student Loans are available for students who meet eligibility requirements. Students apply by completing and submitting a Free Application for Federal Student Aid (FAFSA), an LCC Admissions Application, and an LCC application for William D. Ford Direct Student Loans.
  2. Parent Loans for Undergraduate Students (PLUS) are available to parents of undergraduate dependent students to pay college costs not covered by other financial aid. This is a credit-based loan. Students apply by completing and submitting a Free Application for Federal Student Aid (FAFSA) and an LCC Admissions Application; and parents and students must submit an LCC Direct PLUS Loan application.
- Alternative loans are credit-based loans. Additional information about Alternative Lenders offering credit-based loans is available at the website [www.lcc.edu/finaid/](http://www.lcc.edu/finaid/).

Lansing Community College encourages students to borrow responsibly.

### Work Study (Student Employment)

Both the Federal Work Study and the Michigan Work Study programs provide access to student employment opportunities – both on- and off-campus. Students may be eligible for either the federal or state Work Study award, by indicating their interest on the FAFSA. The Work Study award is actually a "maximum eligibility amount" that the student may earn if they secure a qualified student employment position. The award is then paid-out to the student in the form of wages. These Work Study "earnings" may be used to assist with various education-related expenses. Once the student attains their maximum eligibility amount (through gross earnings), employment may be terminated; it is considered to be temporary, part-time employment only.

Student employment is based upon skills and abilities – not necessarily financial need. Therefore, Work Study eligible students are not guaranteed a job. However, Work Study eligibility does provide unique opportunities for either on-campus student employment offered by the College or for off-campus Work Study employment offered by qualified non-profit organizations and/or local/state/federal public agencies. Contact the Center for Employment Services (CES), room 218 Gannon Building (GB), visit the web site [www.lcc.edu/ces](http://www.lcc.edu/ces), or call (517) 483-1172 to explore available opportunities. CES also provides both on- and off-

campus employment opportunities to students who have **not** received a Work Study award.

### Special Situation Funds

The Student Financial Aid Office in Enrollment Services has information regarding the availability of funds and application procedures for the following programs:

- Federal Bureau of Indian Affairs
- Michigan Indian Tuition Waiver
- Michigan Rehabilitation Services
- Clubs, Organizations, and Business Scholarships
- Private Donor Scholarships

(See *Veterans Information for Armed Services, Veterans' Benefits, and Children of Disabled or Deceased Veterans* programs.)

### HOW AND WHEN TO APPLY

Students wishing to receive financial aid at Lansing Community College must submit a Free Application for Federal Student Aid (FAFSA). The federal central processor must receive the student's completed FAFSA by March 1<sup>st</sup> for priority State aid consideration and at least three months prior to enrollment for all other aid programs. Federal income tax information is necessary to complete the FAFSA. FAFSA forms are available at LCC or from high school counselors. There are two options available for submission:

1. The completed FAFSA may be submitted via the Internet at <http://www.fafsa.ed.gov/>. All necessary instructions are provided. Please note all signature requirements. The STARLAB, located in the Student Financial Aid Office in Enrollment Services, is available for students to submit the application. Staff is available to assist students with filing the online application. The Student Aid Report (SAR) results are then mailed to the student. Processing time is approximately 14 to 21 working days after the student submits the application. Call (517) 483-1200 to schedule a STARLAB appointment.
2. The completed FAFSA may be mailed in the envelope provided with the form to the federal processor. In four to six weeks, the federal processor will send a Student Aid Report (SAR) to the student. The Student Financial Aid Office in Enrollment Services must receive these results to award aid. LCC must be listed as a college choice on the FAFSA in order for LCC to electronically receive the information. The Title IV code to list LCC as a college of choice is 002278.

FAFSA must be submitted each academic year that a student plans to attend college and wishes to receive financial aid. To apply for financial assistance at the College, new students must also complete the LCC Application for Admission online at [www.lcc.edu](http://www.lcc.edu). All students must complete the Free Application for Federal Student Aid (FAFSA) and submit the completed FAFSA to the federal processor prior to being awarded. All students must submit a complete FAFSA each year that the student is requesting federal student aid.

William D. Ford Federal Direct Student Loans (Subsidized, Unsubsidized, and PLUS) are available by completing the aforementioned forms and the loan application form. Loan application forms are available in the Student Financial Aid Office in Enrollment Services.

LCC Board of Trustees Scholarship forms are available through district high schools' counseling offices. Scholarship forms are also available at the Student Financial Aid Office in Enrollment Services.

Divisional Scholarships are available from the respective College division or department of the student's major area of study.

The LCC Foundation has scholarships available throughout the year. Please consult the Student Financial Aid Office in Enrollment Services or call the LCC Foundation Office at (517) 483-1985 for additional information.

Processing of the student's application for financial assistance will begin when the student has submitted the LCC Application for Admission and the results of the FAFSA have been received by the Student Financial Aid Office in Enrollment Services. The student will receive an award notification within two to four weeks after all requested information has been received and checked for accuracy.

Students transferring from other colleges mid-year must cancel aid at their previous colleges when they apply for financial assistance at LCC, and must submit any additional documents requested by the Student Financial Aid Office in Enrollment Services.

The amount of the student's financial assistance award will be based on a standardized cost of attending LCC, less the expected student's and family's contribution. The College will attempt to meet a student's need based upon available funds. All financial assistance applications are confidential and subject to FERPA (Family Educational Rights and Privacy Act) regulations.

### RIGHTS AND RESPONSIBILITIES OF STUDENTS RECEIVING FINANCIAL AID

As a recipient of financial aid, a student enters into an agreement with Lansing Community College which affects the receipt and continuation of assistance. Therefore, students should be sure to read this information carefully.

Students receiving financial aid are required to report any additional income or assistance received during the year to Student Financial Aid Office in Enrollment Services.

Students are responsible for paying all charges that are not covered by financial aid.

### NEED AND FINANCIAL AID PACKAGE

Financial need is determined by subtracting the expected family contribution (as determined by the FAFSA) and other financial resources from the appropriate College budget. The College will attempt to meet the student's need within the limitations of available resources. Should any major changes occur in the student's financial circumstances or should other aid be provided to the student, the student will report these changes to the Student Financial Aid Office in Enrollment Services.

### EXPECTED FAMILY CONTRIBUTION

If a student is a dependent student (as determined by the FAFSA), the College and the federal government assume that parents and students have the primary obligation to provide for the student's cost of education to the extent that they are able, based on a standardized method of determining parental contribution. The second obligation falls upon the student to contribute to his or her own education from personal assets and earnings, which may include the use of student loan funding.

If a student is a self-supporting or independent student (as determined by the FAFSA), the College assumes that since a student is the prime beneficiary of education, the student has a primary obligation to provide for the cost of education to the extent the student is able, based on a standardized method of determining student contribution. The student's expected contribution will come from personal earnings, spouse's earnings, if applicable, savings and assets which may include the use of student loan funding.

### SELECTION CRITERIA

Students are awarded need-based financial aid on a first-come, first-served basis. Students with the highest need are selected first until available funds are exhausted. Students with bachelor's degrees are not eligible for Pell Grants and some other federal and Michigan grants, but may receive Federal or Michigan Work Study if funds permit. These students may also apply for Federal Direct Student Loans.

### FALSIFICATION OF INFORMATION

Falsification of information submitted by the student or parents for the purpose of receiving financial assistance may result in cancellation of assistance, billing back for assistance received, and referral to the appropriate federal authorities. If you purposely give false or misleading information, you may be fined \$10,000, sent to prison, or both by the federal government.

The Student Financial Aid Office in Enrollment Services may be required to verify information provided on the FAFSA form by requiring income tax statements or other documentation of financial status.

### CREDIT HOUR LOAD

Financial aid is offered to students based on enrollment as a full-time student, 12 credit hours or more per semester. However, if a student enrolls for fewer than 12 credits, certain awarded grant funds may be prorated to meet lower enrollment costs. For example, if a student enrolls for 9-11 credits, he or she would in most cases receive 75 percent of his or her Pell award. If a student enrolls for 6-8 credits, he or she would usually receive 50 percent of his or her Pell award. If a student enrolls for fewer than six credit hours, he or she may be eligible for some federal programs. An independent student enrolled for 3-11 credits may be eligible for the Michigan Adult Part-time Grant.

### SHORT COURSE ELIGIBILITY

Payment for courses that are less than a semester in length is permitted. Students who enroll in a short course, receive payment for the course, and then do not attend will be required to repay any financial assistance attributed to that course. In addition, students who receive payment for a short course that is subsequently canceled will be required to repay any financial assistance attributed to that course.

### STUDENT BUDGETING OF THE FINANCIAL AID PACKAGE

The student is responsible for properly budgeting all financial aid offered for each semester. Federal financial aid funds are disbursed directly to a student's account in accordance with federal regulations. The financial aid package will be distributed to the student in the following manner:

1. All student financial aid will be applied toward tuition and fees during registration; and
2. If sufficient funds are available after tuition and fees are paid in full, the student will receive any remaining balance of grants, loans, or scholarships approximately 14 days after the first day of the semester or the date the award is transferred to the student's account, whichever is later.

The student must be prepared to meet his or her living and educational expenses during the period prior to check distribution and for paying all charges not covered by financial aid. Lansing Community College cautions students applying for financial assistance to be prepared to pay their tuition and fees by the payment due date of each semester. The payment due dates are published each semester on www.lcc.edu and in the Semester Course Schedule.

### CHECK DISTRIBUTION

If the total amount of the student's financial aid award for the semester exceeds the student's tuition and fees owed to LCC, a refund for any remaining credit balance will be mailed to the student's home. Credit balance checks are mailed at the beginning of the first week of the semester, and on a weekly basis as student financial aid applications become completed, awarded, and/or accepted. Please note that receipt of a credit balance check does not guarantee that the student's student account is at a zero balance. Credit Balance checks are based on the number of hours in which the student is enrolled at the time disbursement is made to the student's account. If the student drops or adds hours, the student's aid may be subject to adjustment. If the student drops hours, the student may also owe the college money, and will be billed accordingly.

### CHANGES IN ENROLLMENT LEVEL

When the student adds or drops a course during the refund period for that course, disbursed financial aid will be adjusted to the student's new enrollment status. Current semester refund period dates are listed in the Schedule for Drops, Adds, Refunds and Audits, published each semester on www.lcc.edu and in the Semester Course Schedule.

When the student's enrollment level changes as a result of:

- Adding a course after the 50% refund period end date for that course, the financial aid disbursed to the student will not be increased.
- Dropping a course during the 100% or 50% refund period for that course, the financial aid disbursed to the student will be decreased.

- Dropping a course after the 50% refund period end date for that course, the financial aid disbursed to the student will not be decreased. However, dropping a course after the 50% refund period may affect the student's ability to meet the completion ratio requirement of the Satisfactory Academic Progress Policy and, if the student drops all courses, may result in a Return to Title IV Funds calculation.

Enrollment levels are defined as follows:

.25 – 5.99 credits	Less than Half-Time
6.0 – 8.99 credits	Half-Time
9.0 – 11.99 credits	Three-Quarter-Time
12 or more credits	Full-Time

### FINANCIAL AID TUITION REFUNDS/WITHDRAWALS/RETURN TO TITLE IV

Tuition refunds for financial aid students are based on federal regulations.

Students who receive Title IV Federal Financial Aid and withdraw completely on or before 60 percent completion of the enrollment period, or who do not pass at least one course during the term, will be required to repay a pro-rated portion of their aid to the federal government based on the last date of any academically-related activity. The federal law requiring this is called Return to Title IV. Funds included in the Return to Title IV process are: Subsidized and Unsubsidized Federal Loans; Federal Perkins Loans; Parent Loans for Undergraduate Students (PLUS); Pell Grants; Supplemental Educational Opportunity Grants (SEOG); Academic Competitiveness Grants (ACG); and other Federal Grants.

Tuition refunds and Return to Title IV Funds are returned in the following order for any programs received that semester:

- a. Unsubsidized FFEL loans
- b. Subsidized FFEL loans
- c. Unsubsidized (other than parent loans) Federal Direct loans
- d. Subsidized Federal Direct loans
- e. Federal Perkins loans
- f. FFEL PLUS loans
- g. Federal Direct PLUS loans

If excess funds remain after repaying all outstanding loan amounts, then the remaining amount is credited to grant programs in the following order:

- h. Federal Pell Grants
- i. Federal SEOG
- j. Academic Competitiveness Grant
- k. Other Title IV assistance for which a return of funds is required
- l. State financial aid awards
- m. Institutional financial aid awards
- n. Private or public donor awards
- o. Other institutional awards
- p. Student

The College will hold an administrative fee of the lesser of five percent of the refund or \$100.

### REPAYMENT OF GRANTS

If a student withdraws from Lansing Community College or is withdrawn by the College because of nonattendance, a portion of any grants paid to the student may have to be repaid, and grades received for these courses may affect continuation of aid. Failure to repay could result in your account being referred to a collection agency and credit bureau. (See *Financial Aid Refunds/Withdrawals/Return to Title IV*.)

### SATISFACTORY ACADEMIC PROGRESS POLICY FOR FINANCIAL AID ELIGIBILITY

To receive or continue on financial assistance, students must maintain satisfactory academic progress (SAP) each semester. Qualitative (cumulative GPA) and quantitative (hours attempted and earned) progress is measured. SAP rules are applied uniformly to all students for all periods of enrollment whether or not aid has been received previously. Students are held responsible for knowing SAP eligibility criteria and their status at the end of each semester.

The SAP standard for students receiving financial assistance is defined as follows:

1. Students must maintain a cumulative grade point average (GPA) of 2.0 or above. Note: Some types of aid such as scholarships require above a 2.0 GPA for eligibility.
2. Students must earn 70 percent or more of all credits attempted. Credit "earned" is defined as a grade of 1.0 or higher or P; all other grades are considered attempted and not earned for determining financial aid satisfactory academic progress. All courses designated as repeated are counted as credit attempted, but only count once if passed as credit earned. Audit and non-credit classes are ineligible for financial aid and do not count in SAP calculations.
3. Students must complete all requirements for their educational program within 150 percent of the minimum number of credit hours required for their educational program. This limit is further explained below under the heading *Maximum Eligibility*.

### Financial Aid Termination for Unsatisfactory Academic Progress

Federal regulations state that an Academic Progress Policy must include a review of all periods of enrollment whether or not aid was received. Students who fail to maintain satisfactory academic progress required for financial assistance may have their financial aid terminated and lose eligibility for further aid. (See *Appeal of Unsatisfactory Academic Progress*.)

### Appeal of Unsatisfactory Academic Progress

A student who has had his/her financial aid terminated for failing to maintain satisfactory academic progress may appeal this action. To appeal the student must submit a legible letter and a completed Academic Appeal for Financial Aid form to the Student Financial Aid Office in Enrollment Services. The student's letter of appeal should explain why he/she failed to meet the minimum academic standards, what unusual and/or mitigating circumstances caused the failure, and how the situation has improved. Such circumstances may include personal illness or injury, serious illness or death within the student's immediate family, long-term absence from school, or other circumstances beyond the reasonable control of the student. A letter from a physician, attorney, social services or law enforcement agency, licensed therapist or counselor, or clergy, or an obituary notice or divorce decree must document the condition or situation. The condition or situation must have existed or occurred during the period the student was enrolled at Lansing Community College and must no longer exist. All periods of enrollment in which the student failed to maintain satisfactory progress must be addressed in the appeal.

A designated financial aid advisor, in consultation with at least one other financial aid advisor or administrator, will review the written appeal and supporting documentation. The Student Financial Aid Office in Enrollment Services will notify the student in writing of the decision. Results of an appeal may include denial of reinstatement, probationary reinstatement with restrictions such as limiting credit load to part-time status or requiring 100 percent completion of enrolled credits, up to full reinstatement if the student has regained satisfactory academic progress.

### Reinstatement of Financial Aid Eligibility

Students who have had their financial aid terminated may continue to attend classes using their own funds for payment. Eligibility is reinstated if the student's appeal due to unusual and/or mitigating circumstances is approved. Eligibility may also be reinstated after the student improves his/her academic record to meet the minimum SAP standard at his/her own expense. Students who raise their cumulative standards to equal or exceed the minimum SAP requirements should contact the Financial Aid Office in Enrollment Services to see if they may be reinstated to SAP Good Standing status. Reinstatement is subject to all maximum eligibility requirements.

### Maximum Eligibility

Students who have attempted 150 percent of the credit hours required for their program of study at Lansing Community College are not

considered to be making satisfactory academic progress and are no longer eligible for financial assistance beyond this maximum time frame. Transfer students will not be awarded financial aid beyond 150 percent of the credit hours required for their program of study, including credits transferred into the College.

**Exceptions to Maximum Eligibility time frame:** Students requesting financial aid consideration for semester(s) beyond 150 percent of their program will be required to submit a legible letter and a completed Academic Appeal for Financial Aid form to the Financial Aid Office in Enrollment Services. The letter of appeal must explain the reason(s) why the student needs additional credits to complete his/her program of study and include supporting documentation.

Since many programs of study require substantially more than the minimum number of credit hours for a general associate degree, financial aid applicants will be reviewed on an individual basis if and when they approach 150 percent of their program, including any transfer credits. Students who have had to complete prerequisite, developmental or English as a Second Language (ESL) course work as part of their regular academic program requirements may be eligible to have some of these credits excluded in the measurement of the 150 percent maximum time frame.

### APPEALS

It is the student's right to appeal in writing any decisions made regarding the financial assistance application or package. The student may meet with a financial aid advisor to discuss his or her package. The student may meet with a financial aid advisor to discuss extenuating circumstances to above policies or any other policies affecting the student as an assistance recipient. Extenuating circumstances are those considered beyond the student's control and must be documented.

### RIGHTS TO INFORMATION

It is the student's right to obtain information pertaining to financial aid programs available through the College and to discuss with a financial aid advisor information pertinent to the student's assistance application, file folder (records), and assistance package. However, all student information is confidential and will not be released over the telephone or to anyone other than the student.

### RENEWAL OF FINANCIAL ASSISTANCE

Financial assistance is not automatically renewed. Awards are granted for one academic year only. The student must reapply for assistance for the following year by completing all required application forms by stated deadlines on the application. For renewal, the student must be eligible for student financial aid consideration.

To continue on financial assistance, the student must not be in default on any past educational loans at LCC or other colleges. Also, the student must not owe any repayments for educational grants due to withdrawing from college or being withdrawn from college because of nonattendance.

A student will not be awarded federal financial assistance at Lansing Community College beyond the maximum time frame of 150 percent of the credit hours required for his or her program of study. A transfer student will not be awarded federal financial assistance beyond the maximum time frame of 150 percent of the credit hours required for his or her program of study, including transfer credits accepted by LCC.

### VETERANS INFORMATION

Veteran Services Office (VSO) in Enrollment Services is designed to serve the needs of veterans who qualify for education benefits. The staff helps veterans or veteran-related students file applications for educational benefits, counseling, loans, tutorial assistance, and/or any other entitlements allowed through the Veterans Administration. Lansing Community College is approved as a school for veterans of military service under provisions of Chapters 30, 31, 32, 35, 1606 and 1607 of the U.S. Code.

Students must complete, sign and submit an Enrollment Intent Form to the VSO each semester that they plan to attend. The Enrollment Intent Form requested is available at the VSO in Enrollment Services or online at [www.lcc.edu/finaid/forms.htm](http://www.lcc.edu/finaid/forms.htm). The average processing time from the point of applying for educational benefits to the receipt of monetary funds is 30 to 90 days.



Lansing Community College cautions students applying for educational benefits to be prepared to pay their tuition and fees by the payment due date of each semester. The payment due dates are published each semester on [www.lcc.edu](http://www.lcc.edu) and in the Semester Course Schedule. Once the student's application is approved and the award processed by the Office of Veteran Affairs, monthly checks will be issued if the student does monthly enrollment verification with the Office of Veteran Affairs in St. Louis, Missouri. Enrollment verification can be done by phone by calling (877) 823-2378 and online at [www.va.gov](http://www.va.gov).

### Advance Payment

Students who are eligible for veterans' educational benefits may be eligible for advance payment. Advance payment is a pro-rated amount for the first month of attendance of the semester and a full payment for the second month. Advance payment checks are normally issued prior to the beginning of the semester for which they are being requested. The check is delivered to the VSO in Enrollment Services. Veterans are notified by mail upon receipt of the check. Advance payment should be requested at least five (5) weeks prior to the beginning of a semester.

Advance payment cannot be requested if the student is continuously enrolled or enrolled less than half time.

Educational benefit payments provided for by the G.I. Bill vary according to the chapter and the enrollment status at which the veteran is pursuing an academic program as indicated by the following schedule:

ENROLLMENT STATUS	REQUIRED CREDIT HOURS
Full time	Minimum of 12
Three-quarter time	9, 10, or 11
Half time	6, 7, or 8
One-quarter time	5 or less credits – Tuition and fees reimbursement only

After enrollment, veterans should direct their inquiries concerning eligibility to the Office of Veterans Affairs in St. Louis, Missouri at (888) 442-4551.

Lansing Community College, in recognition of the special needs of active-duty service persons in having access to and completing programs, has been designated as a Servicemember's Opportunity College.

In addition, the College participates in the Army College Fund, Michigan National Guard Co-op, Air Force ROTC Program, Army ROTC Program, and USMC Open Admissions Program.

### Satisfactory Academic Progress for Veterans Educational Benefits Recipients

A student receiving educational benefits is required by the Veterans Administration to maintain regular class attendance and satisfactory academic progress. In compliance with Veterans Administration statutory requirements of sub-paragraph 56, section 1775/1776 of chapter 36, Title 38 U.S. Code, Lansing Community College veteran educational benefits recipients will not be certified as eligible for benefits when their cumulative grade point average places them in the academic warning range (probation) beyond two semesters of enrollment. Re-certification of eligibility for benefits will not be considered unless the veteran submits a Success Contract or regains academic good standing (see *Satisfactory Academic Progress Policy*). Success Contracts are mailed to those students who fall into this situation. Veterans must schedule an appointment to meet with an Academic Counselor to discuss the requirements of the Success Contract.

### Certification Policy for Veterans Educational Benefit Recipients

Students must be following a chosen curriculum. Lansing Community College will notify the U.S. Department of Veterans Affairs if a student receiving veterans' educational benefits is awarded a grade of 0.0, "I", "W" or "Z" for course work pursued each semester. The student must provide a written statement indicating the last date of attendance for any course that they earn a grade of 0.0, "W" or "Z". VSO is also required to report all "I" (incomplete) grades to the U.S. Department of Veteran Affairs. VSO uses the last day of the semester in which the "I" grade is earned as the

last date of attendance. Once the course that the "I" grade was earned in has been completed, the grade change is reported by the VSO.

It is the student's responsibility to notify the VSO in Enrollment Services of all enrollment changes (drops) including the non-attendance of any or all courses. In the event that a student fails to report these changes and in the absence of documentation, the College will report the first day of the certified semester as the last date of attendance.

Students who wish to appeal this determination must provide documentation of attendance. Documentation may include a statement signed by the instructor verifying course attendance, deployment orders, and a signed statement by the student, indicating the last date of attendance, medical statements or any other corresponding documentation.

### CREDIT FOR PRIOR TRAINING AND EXPERIENCE

Students who receive veterans' educational benefits must have prior educational training and experience evaluated by the end of the second semester of attendance. The evaluation will include training and experience received while the student was on active duty and for course(s) taken at an approved educational institution even if the training/course(s) were not paid by the Office of Veteran Affairs.

Students who fail to submit official academic transcripts for credits earned at colleges other than Lansing Community College and for active duty military service will not have their enrollment certified beyond their second semester of attendance.

## REGISTRATION INFORMATION

### REGISTRATION PROCEDURES

Each semester Lansing Community College publishes the *Course Schedule* which identifies courses offered for that semester. This booklet includes general information on the dates, times, and location of registration. Students may register for classes according to instructions which are published in the booklet.

Some courses require basic skills proficiency levels which must be met prior to enrollment. Students are strongly encouraged to arrange for orientation, testing, and advising prior to registration.

### ONLINE LEARNING

The Online Learning option allows students to earn associate degrees utilizing the power and connectivity of the internet. These programs present a learning option for students. Independent, highly motivated learners, including those who face time and place constraints, will find this option especially attractive. Students enrolled in LCC's Online Learning program will be guided by a dedicated staff of instructors whose courses have been specifically designed to deliver all the benefits of traditional learning along with technology enhancements that may not otherwise be available. There is an online course fee applied to all Online Learning sections. See the current Course Schedule or visit the eCampus/Online Learning at: [www.lcc.edu/online/](http://www.lcc.edu/online/) for more information about programs and registration.

### TUITION AND FEES

#### Residency

##### I. Eligibility for Paying Resident Tuition

A. A student must be an American citizen, refugee, immigrant, or permanent resident and meet one of the following qualifications before being eligible to pay resident tuition.

1. The following applies to students under 18 years of age:
  - a. The student's parents or legal guardians have resided within the LCC district for at least six months immediately prior to the first day of the semester.
  - b. The student is married and has resided within the LCC district at least six months immediately prior to the first day of the semester.

- c. The student is unmarried and is recognized as "emancipated" (receives no financial support from parent or legal guardian) and has resided within the LCC district for at least six months immediately prior to the first day of the semester.
  - d. The student is enrolled under the provisions of Act 245, Public Acts of 1935, as amended by Act 371, Public Acts of 1965 (students receiving benefits under the Michigan Veterans' Trust Fund).
  - e. The student is an employee of a business or industrial firm within the LCC district, and the employer agrees in writing to pay directly to the College all tuition and fees of the sponsored student for employer-approved classes.
2. The following applies to students 18 years of age or older:
- a. The student has resided within the LCC district at least six months immediately prior to the first day of the semester.
  - b. The student is an employee of a business or industrial firm within the LCC district, and the employer agrees to pay directly to the College all tuition and fees of the sponsored student for employer-approved classes.
  - c. The student is enrolled under the provisions of Act 245, Public Acts of 1935, as amended by Act 371, Public Acts of 1965 (students receiving benefits under the Michigan Veterans' Trust Fund).

## II. Proof of Residency

Lansing Community College verifies the residence of each student each semester by mailings sent to the current address the student has on file with the college. Residency status may be adjusted for those students whose mail is returned to the college from their current address on file. Students are responsible for knowing and understanding their residency status and must provide proof of residency if petitioning for a change of residency. Lansing Community College reserves the right to make the final decision on residency eligibility.

Residency is based on where a student has resided for the six months immediately prior to the first day of the semester of enrollment. Any one of the following documents is acceptable as proof of residency, providing that the six months prior to the first day of the semester for which residency is being sought is covered.

- A. Current Michigan driver's license or State identification card issued not less than six months prior to the first day of the semester in which residency is being sought
- B. Paid property tax receipts for the current year
- C. Current rental or lease agreement indicating six months residency immediately prior to the first day of the semester in which residency is sought. The student's name and signature must be on the lease agreement.
- D. Utility bills with the student's name and address for each of the six months prior to the first day of the semester.

## III. Residency Classification

- A. Resident Students\* — Students who provide proof of residency within the LCC district for the six months immediately prior to the first day of the semester of enrollment are charged resident tuition.
- B. Nonresident Students\* — Students who provide proof of residency within the State of Michigan, but outside the LCC district for the six months immediately prior to the first day of the semester of enrollment are charged nonresident tuition.
- C. Out-of-State\* — Students who provide proof of residency in a state other than Michigan for the six months immediately prior to the first day of the semester of enrollment are charged out-of-state tuition.
- D. International Students — Students who have been admitted to the United States in a temporary, nonresident status are charged international tuition. Individuals who have refugee, immigrant, or resident alien status are not international students.
- E. Foreign nationals who are enrolling in Virtual College courses and reside outside the United States or are admitted to the United States in a temporary, nonresident status will be charged

international tuition. U.S. Nationals who are enrolling in Virtual College courses and are outside the United States will be charged domestic tuition.

\*International Students are not eligible for the resident, nonresident, or out-of-state residency classifications.

## IV. Residency Status for Military Personnel and Dependents

Residency is based on the location of the present domicile of the applicant with the six-month requirement waived, if the applicant can provide any of the documents listed below. This waiver is extended to the dependents (spouse and children) of the person named on the Department of Defense 214 or 899 who reside at the same address.

- A. Department of Defense 214, Separation from Active Duty Form, showing separation date within 120 days from the first day of the semester;
- B. Department of Defense 899, Change of Station Form, showing the Lansing area as the duty station;
- C. Department of Defense 899, Change of Station Form, showing a change of duty station for the head-of-household to an overseas destination or as the result of an emergency mobilization.

## V. Petitioning for a Change in Residency Status

- A. If the student feels that his or her residency status is not correct, the student may furnish the required proof of residency and the residency status will be corrected.
- B. After acceptance into the College as a nonresident or out-of-state resident, a student who has resided in the College district for six (6) months and furnishes the required proof of residency can have his or her residency status changed.
- C. If a change of residency status is approved by the published deadline date and the student is eligible for a refund, the difference between the previous residency status and the new residency status shall be refunded.
- D. Adjustments in tuition due to a change in residency are not retroactive to previous semesters.
- E. Appeals of residency status may be submitted. The Request for Exception to College Policy form is available from Enrollment Services and must be completed and submitted with supporting documentation. Students shall use the following line of appeal when appealing a residency decision:
  - 1. Enrollment Services
  - 2. Refund/Residency Review Panel – Decisions rendered by the Refund/Residency Review Panel will be final.

## VI. Nonresident Owners of In-District Property

Nonresident students or their guardians owning property in the LCC district will receive credit once a year for property taxes paid in support of the College by himself or herself or his or her guardian. The taxes paid must be in support of the current academic year and the credit cannot exceed the differential between resident and nonresident tuition rates for the current academic year. To obtain this credit, the student must provide Enrollment Services with the paid property tax receipt.

## Payment of Tuition and Fees\*

All students attending Lansing Community College must pay tuition and fees at the time of registration or by the published payment deadline. Failure to pay will result in an enrollment hold on your account if your balance due is \$25.00 or more. Failure to pay could result in your account being referred to a collection agency and credit bureau. Current tuition and fees are as follows:

**Student Billing Hour System** – The cost of attending a course is determined by the course's billing hours, instead of credit hours. A billing hour represents an amount of time that a student spends in direct contact with an instructor or with laboratory equipment. Several factors are considered in determining the billing hours of a course. The main factor is the number of hours the student is expected to either be in a class or in another "instructional" setting (such as a lab) in

a typical week for a full semester. LCC courses range from one billing hour to more than 10 billing hours per course. The billing system caps the number of billing hours that can be added to a course. For the majority of courses at LCC, the credit hours and the billing hours are the same.

**TUITION PER BILLING HOUR\***

College District Resident Students . . . . . \$67.00  
 Resident students who have lived for six months or more within one of the 15 school districts listed below and pay property taxes to support LCC's budget. School districts include:

Bath	Haslett	Okemos
Dansville	Holt	Stockbridge
DeWitt	Lansing	Waverly
East Lansing	Leslie	Webberville
Grand Ledge	Mason	Williamston

**Out-of-District Students** . . . . . \$120.00  
 Students who reside in Michigan, but not in one of the above 15 school districts are out-of-district students.

**Out-of-State Students** . . . . . \$180.00  
 Students who reside in states outside of Michigan are out-of-state students.

**International Students** . . . . . \$180.00  
 Students admitted to the United States on a temporary, non-resident status are international students  
 Tuition for apprenticeship students varies according to the program of study.

**FEES FOR ALL STUDENTS\***

**Registration Fee** (all students, each semester, not refundable) . \$25.00

**Facility Fee** – Effective Fall 2006 the college will charge a \$5.00 per billable hour facility fee on all credit classes.

**Online Learning Course Fee** – A \$10.00 Online Fee will be applied to all online courses.

**Graduation Application Fee** – The \$25.00 non-refundable fee will be assessed to the student at the time a graduation application is submitted and will help defray the cost of processing application and mailing diplomas.

**Senior Citizens Discount** – A student who is 62 or older on the first day of the semester, and who is a resident of Michigan six months prior to the beginning of the semester, will qualify for a 50 percent tuition discount on LCC classes. The discount applies to classes taken for audit of credit. Classes with zero billable hours are not covered by the tuition rate discount. Senior citizens will continue to pay registration, course and facility fees. For details about the senior citizen tuition discount, e-mail the LCC Welcome Center at [welcome@lcc.edu](mailto:welcome@lcc.edu) or call (517) 483-1957.

A fee will be charged for dishonored check or credit card transactions.

Course fees vary and are published in the *Course Schedule* booklet each semester.

\*TUITION AND FEES ARE SUBJECT TO CHANGE THROUGH THE ACTION OF THE BOARD OF TRUSTEES.

**Refund Policy for Semester-Length Courses**

**Fall and Spring Semesters and Summer Session**

- Withdrawal during first week of semester  
100% of tuition and fees
- Withdrawal during second week of semester  
50% of tuition only
- Withdrawal after second week of semester  
No refund

It is the responsibility of the student to officially drop a class he/she no longer plans to attend. Non-attendance and/or instructor notification does not constitute an official drop. If a student does not officially drop the class, he/she will remain on the class list; will be responsible for payment of tuition and fees; and a grade may be recorded on the student's record.

Students receiving financial aid will receive refunds only if repayment to financial aid sources is not required.

Refunds are not retroactive to previous semesters. Questions relating to refunds should be addressed to the Cash Operations Office.

**VARIABLE DATE COURSES**

It is the student's responsibility to process all drops by the established deadline dates. To withdraw from class, the student must fill out a Drop Form in the Enrollment Services Office or through the department offering the course. Refunds are automatically issued for courses canceled by the College. The application and registration fees are nonrefundable.

**UP TO AND INCLUDING THREE-DAY COURSES**

- 100% Refund\* . . . . . Prior to start of course
- Drop with no course shown . . . . . Prior to start of course
- Students with a valid reason for exception to this policy may fax, mail, or present their support documentation to Enrollment Services.
- Change credit/audit status . . . . . Prior to end of course meeting

**FOUR-DAY – LESS THAN EIGHT-WEEK COURSES**

- 100% Refund\* . . . . . Prior to start of course
- Drop with no course shown . . . . . Prior to start of course
- Students with a valid reason for exception to this policy may fax, mail, or present their support documentation to Enrollment Services.
- Change credit/audit status . . . . . Through midpoint of course (using calendar date—beginning through ending dates of course)

**EIGHT-WEEK – LESS THAN 16-WEEK COURSES**

- 100% Refund\* . . . . . During the first week of the course
- 50% Refund (of tuition only) . . . . . During the second week of the course
- Drop with no course shown . . . . . Up to 14 days into the course
- Change credit/audit status . . . . . Up to 14 days into the course

**OPEN ENTRY COURSES**

- 100% Refund\* . . . . . Day prior to learning contract start date
- 50% Refund . . . . . Not applicable
- Drop with no course shown . . . . . Day prior to learning contract start date
- Change credit/audit status . . . . . Day prior to learning contract start date

\*The 100% refund period for courses offered by BCI/M-TEC is seven (7) working days (or more) before the first day of class. The refund amount for classes dropped from two (2) to six (6) working days before the class begins is 70%. For classes dropped one (1) working day before the first day of class or later, there is no refund.

Students dropping a West Campus open entry module prior to the module start date will receive a 100% refund. Students dropping an open entry module after the module start date will receive 0% refund, no matter when they enrolled in the course. Students who are administratively dropped for non-completion of the Student Learning Contract will receive 0% refund.

**STUDENT CREDIT REQUIREMENTS**

Student credit requirements are as follows:

**FALL AND SPRING SEMESTERS**

Full-time enrollment	12 credits
Three-quarters enrollment	9 credits
One-half enrollment	6 credits

**SUMMER SESSION (8 weeks)**

Full-time enrollment	6 credits
Three-quarters enrollment	5 credits
One-half enrollment	3 credits

**CANCELED CLASSES**

The College reserves the right to cancel classes which do not have sufficient enrollment. Students enrolled in classes that are canceled will have the opportunity to add another class or receive a refund.

**TUITION REFUND APPEALS**

Students may experience situations that are beyond their control and may be eligible to receive a refund for part or all tuition paid for a semester beyond the published refund periods. If a student has extenuating circumstances, e.g., a medical emergency, an accident, military deployment, other situations beyond their control, or a situation that is the result of college error, he/she can submit a request in writing to be considered for an exception to college policy. The Request for Exception to College Policy form is available from Enrollment Services and must be completed and submitted with supporting documentation. The form and documentation is reviewed by the Registrar's Office and the student is notified in writing of a decision. If the request is approved, a refund will be mailed to the student, or the amount outstanding on the student account will be removed.

If the request is denied by the Registrar's Office, the student may appeal the decision in writing to the Refund/Residency Review Panel. Decisions rendered by the Refund/Residency Review Panel will be final.

**SCHEDULE CHANGES**

During the schedule change period, and in accordance with procedures specified in the *Course Schedule*, a student may make changes in his or her schedule. A student may withdraw from a course before the end of the second week of the semester without academic penalty. Drops will not be processed after the last day of the semester.

Schedule changes involve the following procedures which must be completely carried out by the student, so that the student's records in the Enrollment Services Office may be accurately maintained:

1. Pick up a Drop-Add Form during the registration process or at the Enrollment Services Office.
2. Fill out the form completely with information requested.
3. Return the form to the registration assistant or to the Enrollment Services Office for proper recording. Do not leave until processing of the form has been completed and a copy has been received.

Departmental signatures and grade at time of drop are required on all drop forms after the second week of the semester or other equivalent dates as specified for variable length courses.

**AUDITING COURSES**

A student who registers as an audit, attends class regularly but does not take the final examination, does not receive an achievement grade, and does not receive credit for the course. Students wishing to audit must meet all prerequisites required for the course and indicate their intention to audit at the time they register for the course. Audited courses cannot be applied toward a degree or certificate and cannot be used to meet prerequisites.

The College allows students to change from *credit* to *audit* or from *audit* to *credit* by the end of the second week for 16-week classes (and other equivalent dates as specified for variable length courses). Students electing to change from *audit* to *credit* are responsible for having course

work up to date at the time the change is made and must have instructor approval after the first week of the semester. Changes from *credit* to *audit* through the end of the second week for 16-week courses (and other equivalent dates as specified for variable length courses) do not require instructor approval. In addition, students should be aware that exercising this option may have an impact on their financial assistance or on student employment at the College. Any student balance due created by a change in total number of enrolled credits or change of course(s) to audit status must be paid by the student. Changes in audit or credit status must be requested by the student through the Enrollment Services Office.

**WITHDRAWAL****I. Student-Initiated Withdrawal**

- A. If a student finds it necessary to withdraw from a class or from the College, he or she must follow the procedure specified by the college.
- B. If the withdrawal takes place within the established refund period for each semester, a student withdrawing will receive a refund.
- C. If a student withdraws from a semester-length class prior to the end of the second week of the semester (or other equivalent dates as specified for variable length courses), instructor approval is not needed, a final grade is not issued, and the withdrawn class is not recorded on the academic record.
- D. If a student withdraws from a semester-length class between the end of the second week of the semester and the end of the eighth week of the semester (or other equivalent dates as specified for variable length courses), instructor approval is not needed, the student will receive a W grade, and the instructor will be informed of the withdrawal.
- E. After the end of the eighth week of the semester (or other equivalent dates as specified for variable length courses), a student's request to withdraw from a class will be considered only if the student is completing the course requirements at a passing level (1.0 or higher) at the time the W is requested. If the student has not done passing work, he or she will receive a 0.0. The instructor's signature is required for the student to receive a grade of W. If the instructor finds that the student was not able to apply for the W in a timely fashion, the instructor may grant the student's request for a W if the student was passing the course on the date of the event that caused the application for withdrawal. A student may request to withdraw from a class with instructor's approval until the end of the fourteenth week of the semester (or other equivalent dates as specified for variable length courses).
- F. The college will retain documentation of all student-initiated withdrawals.

**II. Administrative Withdrawal**

The ultimate responsibility for withdrawal from a class rests with the student. However, it may be in the best interest of the student and/or the College community that a student be withdrawn from a class or a group of classes. This process is known as "administrative withdrawal."

An administrative withdrawal may be initiated by a classroom instructor following written procedures established by each department in accordance with college-specified guidelines. An administrative withdrawal may be based on the following: (1) student nonattendance/nonparticipation; (2) lack of prerequisites for a particular course; and/or (3) student behavior that interferes with the instructional process.

- A. When a student fails to attend or participate in the class, the instructor may initiate an administrative withdrawal.
- B. When a student does not have the prerequisites for a particular course, the classroom instructor consults with the student regarding the potential of administrative withdrawal. The instructor has the right to initiate an administrative withdrawal.
- C. When a student behaves in a manner that interferes with the instructional process, the classroom instructor consults with the student regarding the potential of administrative withdrawal and establishes guidelines in writing for retaining enrollment in the class. If the student does not satisfactorily meet the guidelines

or if the student does not respond to an invitation to meet with the classroom instructor, the classroom instructor, with the co-recommendation of the appropriate departmental chairperson, may initiate an administrative withdrawal. The classroom instructor, with the co-recommendation of the appropriate departmental chairperson, may also recommend that a member of the counseling staff meet with the instructor and the student to review the circumstances of the student's behavior and to work out a possible alternative.

In all cases of administrative withdrawal, a student who is withdrawn from a semester-length class prior to the end of the second week of the semester (or other equivalent dates as specified for variable length courses) will not receive a grade and a record of attempting the class will not appear on the academic record. If the student is withdrawn between the end of the second week of the semester and the end of the eighth week of the semester (or equivalent dates as specified for variable length courses), the student will receive a W grade. If a student is withdrawn between the end of the eighth week of the semester and the end of the fourteenth week of the semester (or equivalent dates as specified for variable length courses), the student will receive a W grade only if he or she was completing the course requirements at a passing level (1.0 or higher) up until the date of the event that caused the administrative withdrawal. If the student has not done passing work, he or she will receive a 0.0. The deadline for administrative withdrawals is the end of the fourteenth week of the semester (or equivalent dates as specified for variable length courses).

The college will retain documentation of all administrative withdrawals.

Any student who is administratively withdrawn may appeal the withdrawal following the procedure specified by the college.

### III. Procedure for Resolving Health-Related Student Problems

In a situation in which a serious (physical or emotional) health-related problem becomes evident in a student, the College's responsibilities are to assist the student and take necessary action to maintain order consistent with a positive learning environment for other students. If a student's health-related behavior becomes disruptive or clearly inappropriate, the following procedures shall be followed:

- A. Call the Department of Public Safety and the Office of the Dean of the Student and Academic Support Division if:
  1. Emergency health services are required or
  2. It appears that there has been or is likely to be a violation of the law.
- B. Call only the Office of the Dean of Student and Academic Support if it appears that there has been a violation of a College regulation that is not also a violation of the law.
- C. If there is no apparent violation of the law or College regulation and no emergency exists, the student should be encouraged to seek help from an appropriate health or counseling office or agency, on or off campus. Assistance from the Office of the Dean of Student and Academic Support and/or College counselors should be sought if needed.
- D. If there appears to be a violation of the law or a College regulation, the student may be subject to discipline under the Due Process procedures of the College. In addition, the Office of the Dean of Student and Academic Support (or designee) may contact the counseling staff in order for a member of the counseling staff to meet with the student and recommend:
  1. Continued counseling if the problem is within the ability of the Counseling and Advising Center to handle.
  2. Referral back to the Office of the Dean of Student and Academic Support when no health-related problem is evident or when it is determined that the Counseling and Advising Center can be of no further service.
  3. Referral to other appropriate professional assistance if the problem is beyond the scope and ability of the Counseling and Advising Center to handle. If the problem significantly

compromises the rights or safety of other persons at the College or if a professional recommendation to withdraw the student is made, the Office of the Dean of Student and Academic Support may institute procedures for administrative withdrawal of the student from the College until he or she provides evidence from a licensed and appropriate health care professional stating that the student is able to function effectively with the stresses and demands of a College setting. The student may appeal the withdrawal decision to the Board of Appeals.

4. Whenever possible, the counseling staff, working with the student's physician and/or relatives, shall make a recommendation to the student as to his or her future course of action.

## ACADEMIC INFORMATION

### ACADEMIC DEFINITIONS

The following are definitions of academic terms commonly used at Lansing Community College.

**Associate Degree:** The associate degree consists of a minimum of 60 semester credits in designated courses. It is earned with a minimum of a 2.0 cumulative GPA, successful completion of the LCC General Education Core, and is recorded on the official academic record. At least 20 semester credits must be earned in attendance at Lansing Community College.

**Certificate of Achievement:** The certificate of achievement consists of a minimum of 30 specifically designated semester credits in occupational areas. It is earned with a minimum of a 2.0 cumulative GPA and is recorded on the official academic record. At least 10 semester credits must be earned in attendance at Lansing Community College.

**Certificate of Completion:** The certificate of completion consists of fewer than 30 specifically designated semester credits in occupational areas. It is earned with a minimum of a 2.0 cumulative GPA and is recorded on the official academic record. At least one-third of the credits required for this certificate must be earned in attendance at Lansing Community College.

**Credit Hour:** A credit hour is an instructional unit carried out for the expressed purpose of eliciting some measure of educational change in a learner or group of learners. A credit can be awarded on a student's academic transcript when he or she successfully completes a unit of instruction of not fewer than 800 instructional minutes.

**Corequisite Course:** A corequisite course is a course that must be taken concurrently with another course.

**Course:** A course is a sequence of planned learning experiences leading to a set of expected learning outcomes. Course activities are normally scheduled over an academic semester. A student's successful completion of a course earns academic credit based on contact hours in class or in laboratories. The student also earns an academic grade which evaluates the student's success in achieving the expected outcomes. A course routinely includes tests, quizzes, a final examination, and regular out-of-class assignments. At Lansing Community College, a standard college-wide course syllabus has been created for each course. A course is publicized in the *College Catalog* and the *Course Schedule*. A seminar, workshop, or fee-for-service learning/training unit is not a course.

**Curriculum:** A curriculum is a structured program of study. Each curriculum is assigned a number and is valid for a predetermined timeframe.

**Major:** A major is the predominant subject area within a curriculum.

**Module:** A module is a component of a course offered as a separate educational package, which includes learning objectives, learning activities, and assessment procedures designed to guide learners through a specific unit of instruction.

**Prerequisite:** A prerequisite is a course or other requirement that must be successfully fulfilled prior to participation in a subsequent course or activity. It may also be a skill or behavior that is judged essential to learning a subsequent, more complex skill or behavior.

**Program:** A program is the organizational structure of the College which provides or delivers instruction and/or services.

**GRADING SYSTEM**

The following numerical system is used at Lansing Community College to evaluate academic work:

COLLEGE STANDARD	RECOMMENDED NARRATIVE EQUIVALENT	GUIDELINE FOR PERFORMANCE ACHIEVEMENT OF OBJECTIVES*
4.0	Excellent	91% to 100%
3.5		86% to 90%
3.0	Good	81% to 85%
2.5		76% to 80%
2.0	Satisfactory	71% to 75%
1.5		66% to 70%
1.0	Poor	60% to 65%
0.0	Failure	0% to 59%

\* THIS GUIDELINE IS RECOMMENDED ONLY. STUDENTS SHOULD SEE THEIR INSTRUCTOR REGARDING THE GRADING SYSTEM USED FOR A SPECIFIC COURSE.

Instead of a numerical grade, students may receive an alphabetical letter for their course work if they have audited a course (X), withdrawn from a course (W), or did not complete course work (I). Specific regulations regarding these alphabetical letters are as follows:

1. An "I" (Incomplete) will not be counted toward the establishment of an earned grade point average (GPA) or toward graduation from Lansing Community College. All requests for incompletes are initiated by the student. An instructor may assign an "I" grade at the student's request when the following conditions are met: the student is unable to complete a course for some good and serious reason (for example, incapacitating illness, legal involvement that cannot be rescheduled, or changing work obligation); the student has demonstrated successful progress in class; and the student has completed approximately 80 percent of the course work. (Note: The 80 percent figure is a benchmark, since weighting of exams and other work varies among programs and courses. The intent is that only a small portion of the work remains.) When issuing an "I" grade, the instructor will also indicate what grade will be assigned if no further work is completed. All incompletes must be made up by the end of the next regular semester (Summer session is excluded) or earlier if an earlier date is established by the instructor or department. An extension may be granted if requested in writing by the student and approved by the instructor and department by the last day of the deadline; otherwise, the "I" will be converted to the grade specified if no further work is completed.
2. An "X" (audit) grade is given when a student chooses to audit a course. No credit is granted, but enrollment is reflected on the student's academic record.
3. A "W" (withdrawal) indicates a withdrawal from a course. If a request for withdrawal from a semester-length class is received by Enrollment Services Office prior to the end of the second week of the semester (or other equivalent dates as specified for variable length courses), no grade will be recorded on the student's academic record. For withdrawals after the second week and before the end of the eighth week of the semester (or other equivalent dates as specified for variable length courses) the student will receive a W grade. For withdrawals after the eighth week of the semester (or other equivalent dates as specified for variable length courses), a W is given only if the student has done passing work (1.0 or higher). If the student has not done passing work, he or she will receive a 0.0.

**COMPUTING GRADE POINT AVERAGE**

A student's grade point average is determined on the following basis:

NUMERICAL GRADE	GPA POINTS
4.0	4.0
3.5	3.5
3.0	3.0
2.5	2.5
2.0	2.0
1.5	1.5
1.0	1.0
0.0	0.0

"W", "X", and "I" grades are not included in calculating grade point averages. For example, a student who receives five credit hours of 4.0, five credit hours of 3.0 and five credit hours of 2.0 would have a total of 45 GPA points. To compute the grade point average (GPA), the number of GPA points is divided by GPA hours (credits) taken during the semester. The student in this example would have a 3.0 GPA (45 GPA Points/15credits).

**Pass/Fail GRADING (P-Z)**

The pass (P) / fail (Z) grading system has been established as a departmental option. This system is reserved for special course offerings where a pass/fail grading system is most appropriate for the goals and objectives of the course.

1. Course prerequisites and other criteria for enrolling in courses offered on the P-Z grading system shall be determined by the department offering the course.
2. Courses using the P-Z grading system will be published as being graded on the P-Z grading system only, and the course syllabus shall be explicit regarding this fact.
3. Courses graded on the P-Z system may be counted toward an associate degree or certificate based on approval of the appropriate dean. A maximum of 10 percent of the total credits required for a degree or certificate may be acquired on the P-Z system. With departmental approval, the limitation on the use of P-Z course credits for an LCC degree or certificate may be waived when incoming P-Z credits are directly related to the degree or certificate in a course of study.

Grading procedure of the pass/fail system is as follows:

1. Grades on the P-Z system are not included in computing the semester or cumulative grade average.
2. The grades granted on the P-Z system are determined with definitions of "P" and "Z" as follows:
  - a. P (pass) represents a level of performance equivalent to a regular number grade of 2.0 or above on a 4.0 system; credit is granted.
  - b. Z (fail) represents a level of performance less than a 2.0 on a 4.0 system; no credit is granted.

All courses attempted on the P-Z grading system will appear on the student's academic record. Policies pertaining to the issuing of "W" and "I" grades also apply to courses graded on the P-Z system (see *Grading System* above).

**REPEATING A COURSE**

When a student repeats a course for a higher grade, the student's academic record and transcript will reflect every grade received for the course. However, only the highest grade is used in computing the LCC cumulative GPA and credits earned.

**REPEAT ENROLLMENT POLICY**

Lansing Community College has a proven commitment to student success. For that reason, the following policy has been enacted to help students who have been unable to succeed in a specific course.

When a student receives a grade of "0.0" or "W" for the same course reported on the transcript twice, and remains academically eligible to

continue taking classes, the student may not enroll in the same course a third time without a permission form signed by an LCC counselor, or a specially designated advisor, as part of a plan to help the student be successful. (Distance students may arrange an electronic consultation).

If the student fails or receives a "W" after the intervention, the student may not enroll again without another permission form signed by both the counselor/advisor AND the Dean of the Student and Academic Support Division.

### USING A COURSE MORE THAN ONCE FOR CREDIT TOWARD A DEGREE OR CERTIFICATE

In order to ensure that graduates from Lansing Community College are academically well rounded, students will not be allowed to use the same course more than once for credit toward a degree or certificate unless specifically required or permitted to do so by the curriculum they are following. Under no circumstances will a student be allowed to use the same course more than once for credit toward the General Associate Degree.

### GRADES

Grades are available on the web, to students approximately 7 to 10 business days after the close of each semester. Students who have an overdue indebtedness to the College will not have access to their grades.

### GRADE CHANGES

Students may petition an instructor for a grade change of a final grade in a course. The line of formal appeal for grade change petitions can be found in the College's Due Process statement. A student's final grade in a course may be changed by the course instructor. Grade changes by instructors are initiated by submitting signed Grade Change Forms to the departmental office for review and approval by the departmental chair or lead faculty member. The completed Grade Change Form is then forwarded to the Enrollment Services Office for posting on the student's permanent academic record. Completed Grade Change Forms are not to be carried by the petitioning student to the Enrollment Services. The form will not be processed if received from the student. Students will be sent an e-mail notification after a grade change has been completed.

### ACADEMIC STANDING POLICY

Students must maintain at least a 2.0 cumulative Grade Point Average (GPA) at Lansing Community College to remain in Good Standing, which indicates satisfactory academic progress. Students whose cumulative GPA falls below 2.0 will be placed on either "Warning" or "Probationary" standing, which indicate unsatisfactory academic progress. While on Warning or Probationary standing, the student may have limits on registration for classes. In addition, students on Warning or Probationary standing may be required to meet with a counselor and sign a Success Contract prior to registering. Students can return to Good Standing by earning a cumulative GPA of 2.0 or higher. Continuing to earn a GPA below 2.0 may result in being academically recessed from LCC.

Note: Only course work completed at LCC is considered for determination of academic standing. The academic standing is determined at the end of each semester (Fall, Spring, Summer).

#### Summary of Academic Standing Policy

- **Good Standing:** Cumulative Grade Point Average (GPA) 2.0 or above
- **Warning:** Cumulative GPA below 2.0; suggested that the student meet with a counselor or advisor
- **Probation:** Continued cumulative GPA below 2.0; registration limited to 12 or fewer credits for Fall and Spring Semesters and six or fewer for Summer Session, and student is required to meet with a counselor or advisor
- **Academic Recess:** Continued cumulative GPA below 2.0; student not eligible to register and must sit out one semester or Summer Session. Upon return following the semester of recess, a student

must meet with a counselor or advisor to plan his or her academic success and sign a Success Contract. Satisfactory completion of this plan as well as semester-by-semester subsequent plans will allow further enrollment until a satisfactory cumulative GPA places the student in good standing.

Students receiving financial aid or veterans benefits are required to satisfy specific additional academic standards to continue receiving financial assistance. See the *Financial Aid* section of this Catalog.

Students in certain selective admission programs may have different standards for academic standing.

**President's List:** GPA of 3.81 or above and completion of at least 6 credits for the calculated term, excluding any "I" (Incompletes) or "W" (withdrawals). Calculations are based on LCC classes only (no transfer credits).

**Dean's List:** GPA between 3.50 to 3.80 and completion of at least 6 credits for the calculated term, excluding any "I" (Incompletes) or "W" (withdrawals). Calculations are based on LCC classes only (no transfer credits).

### ACADEMIC AMNESTY

Lansing Community College recognizes that students are unsuccessful academically for a variety of reasons. Those students may return years later to find their low GPA is a barrier to fields they might otherwise be ready to enter. LCC has an Academic Amnesty Policy in order to allow such students a second chance. Qualified students may receive academic amnesty for a maximum of eighteen semester hours (or the quarter/term equivalent) of grades of 0.0. They will no longer be calculated into the student's GPA, and the "forgiven" grades will remain on the transcript along with a special notation explaining the Academic Amnesty Policy at LCC. The student must apply to the Registrar for academic amnesty, and an academic advisor or counselor must sign the application. In order for a student to qualify for academic amnesty, the following conditions must be met:

1. Five or more years must have elapsed since the last grade for which amnesty is requested.
2. The student must have earned twelve semester credit hours in courses numbered 100 or above at LCC and have a cumulative GPA of at least 2.0 since the last grade for which amnesty is requested.
3. Academic amnesty may be granted only once to any student and is irrevocable.
4. The Petition/Application for Academic Amnesty must be received by the Enrollment Services Office by the 10th week of the semester for consideration and action by the end of the semester.

Academic amnesty, when granted, applies only to LCC courses—not to any courses at other institutions. Further, there is no guarantee, expressed or implied, any other college, university, or employer will recognize academic amnesty.

## STUDENT RECORDS

### STUDENT TRANSCRIPTS

The Enrollment Services Office maintains the permanent official transcript of every student who attends the College. The transcript is a copy of the student's academic record and contains the signature of the Registrar. The transcript includes courses waived, courses attempted and completed, courses and credits transferred, credits awarded for experiential learning, credit hours, GPA points, Lansing Community College grade point average, current program and major, associate degrees, certificates of achievement, and certificates of completion awarded at the College.

Students may request that a copy of the official transcript be given or mailed to any party by submitting a request in writing to the Enrollment Services Office. Transcript requests require a minimum of three working

days to process, and a fee is charged for each transcript. A hold may prevent the release of the transcript of any student or former student who has indebtedness to the College.

## RECORDS POLICY

Lansing Community College shall not distribute student lists to non-college agencies except as required by law.

In compliance with the Family Educational Rights and Privacy Act of 1974, Lansing Community College provides the following information:

1. Students and/or a parent of a student, if the student is a dependent, have the right to access, inspect, and review all educational records directly related to the student. Upon presentation of pictured identification and a written request from the student to the Enrollment Services Office, Room 203 Gannon Building, access to all educational records shall be provided within a reasonable period of time (not to exceed 45 days from the date the request is submitted).
2. Educational records include all information maintained by the College that is directly related to the student with the exception of:
  - a. Financial records of the student's parents.
  - b. Confidential letters of recommendation prior to January 1, 1975.
  - c. Confidential letters and recommendations associated with admissions, application for employment, or receipt of an honor or honorary recognition to which students have waived rights of inspection and review.
  - d. Educational records containing information about more than one student. Note that the College must permit access to that part of the record which pertains only to the inquiring student.
  - e. Reports made by physicians, psychiatrists, or psychologists in connection with their treatment.
  - f. Records of instructional, supervisory, administrative, and certain educational personnel which are in the sole possession of the originator.
  - g. Records of the law enforcement unit of the College if compiled for law enforcement purposes.
  - h. Records which relate exclusively to individuals in their capacity as College employees.
3. Directory information may be released at the discretion of College officials for any student who has not submitted a completed Request to Prevent Disclosure of Directory Information form to the Enrollment Services Office. The disclosure prevention form remains in effect until the student provides a written release to the Enrollment Services Office. Directory information includes, but is not limited to:
  - a. Name of student
  - b. Dates of attendance
  - c. Enrollment status
  - d. Awards, degrees, or certificates received
  - e. Participation in officially recognized activities
  - f. Sport, weight, and height of members of athletic teams
  - g. Previous educational agency or institution attended
  - h. Email address

Copies of the Request to Prevent Disclosure of Directory Information form and the Family Educational Rights and Privacy Act are available upon request in the Enrollment Services Office and the Office of the Dean of Student and Academic Support.

4. Lansing Community College prohibits the release of personally identifiable information other than directory information from educational records without the student's written consent. Exceptions to this statement are listed below:
  - a. Academic and administrative officials, staff, and persons who have entered into a partnership or contract with Lansing Community College and whom the College has determined to have legitimate educational interest. An official has a legitimate educational interest if the official needs to review an educational

- record in order to fulfill his or her professional responsibility.
- b. Other educational institutions in which the student is enrolled or intends to enroll.
- c. Individuals and organizations who provide financial aid or scholarships to the student.
- d. Authorized representatives of the Comptroller General of the United States, the Secretary of the Department of Health and Human Services, the Department of Veterans Administration, the Department of Education, and administrative heads of state and federal educational agencies authorized by law.
- e. Accrediting organizations to carry out their accrediting functions.
- f. Appropriate authorities in compliance with judicial orders and pursuant to lawfully issued subpoenas. The College shall notify the student of any such orders or subpoenas unless the subpoena or order prohibits notification. The College shall comply with the subpoena ten (10) days after an attempt to notify the student of the request.
- g. Appropriate parties in an emergency if knowledge of the information is necessary to protect the health or safety of the student or other individuals.
- h. Parents who have established the student's status as a dependent according to Internal Revenue Code of 1954, Section 152.
- i. An alleged victim of any crime of violence or the results of any disciplinary proceeding conducted by the College against the alleged perpetrator of the crime.
- j. Military recruiters for the purpose of federal military recruiting as stated in Public Law 104-206, Section 509(2).

Lansing Community College will maintain a record of each disclosure of identifiable information from the external individuals or agencies listed above. The record will be maintained in the Enrollment Services/Registrar's Office and will include the date, the name and address of the requesting party, the information requested, and the reason for requesting the information. The College reserves the right to correct any error made on an academic record or evaluation and will notify the student in writing of any record or evaluation correction. Staff of the College is subject to the requirements of the Family Educational Rights and Privacy Act of 1974, as amended.

Students have the right to request correction or amendment of information on educational records that are inaccurate, misleading or which violate privacy rights. Due process procedures for requesting correction or amendment to educational records are stated in the College Catalog under Student Appeals.

Students who feel their rights under the Family Educational Rights and Privacy Act have been abridged may file complaints with the Family Policy and Regulations Office, U.S. Department of Education, Washington, D.C. 20202.

## GUIDELINES AND PROCEDURES FOR THE EVALUATION OF INCOMING TRANSFER CREDITS

Only official transcripts will be evaluated for transfer credit. Lansing Community College will determine the credit value of each of the courses. The College will accept as official transcripts only incoming transcripts that have appropriate signatures and/or official college seals and that are mailed directly to the Lansing Community College Enrollment Services from an issuing institution. Transcripts or copies of transcripts carried by individuals may be used for academic advising or counseling, but transfer credits will NOT be posted to the Lansing Community College academic record from transcripts that are not received directly from the issuing institution. It is the function of the Enrollment Services Office of the College to verify the official status of all incoming transcripts prior to the evaluation and posting of transfer credit. All transcripts submitted to LCC for evaluation become the property of LCC. Students will receive official notification of transcript evaluation results upon completion of the process.



Course work which is similar in nature, content, and level to that offered by Lansing Community College will be accepted in transfer. Credits only, not grades, are transferred. Transfer credit will be accepted at full value in transfer if earned:

1. In a program, college, or university which offers programs that are comparable to programs offered by Lansing Community College, and the program or institution is either accredited or a candidate for accreditation by an accrediting association which is a member of Council for Higher Education Accreditation (CHEA), or
2. From institutions with professional accreditation but lacking regional accreditation, with attainment of a final grade of 2.0 or higher, providing an evaluation has been completed by appropriate program officials at Lansing Community College.

### CREDITS EARNED AT ACCREDITED INSTITUTIONS

1. Freshman and sophomore level courses are reviewed for credit, provided the student has declared a curriculum (major or program of study). Higher-level credits may be accepted if they correspond to a specific course at Lansing Community College. In situations where Lansing Community College does not have a department or area similar to the courses on incoming transcripts, credit may be denied.
2. Credits in courses graded Pass/Fail will be accepted in transfer only if it can be documented that "Pass" represents competency at a 2.0 level or higher and will be recorded as P-Z course credits. With departmental approval, the limitation on the use of P-Z course credits for an LCC degree or certificate may be waived when incoming P-Z credits are directly related to the degree or certificate in a course of study.
3. Credits earned by an examination administered by an accredited institution will be accepted only if the institution that administered the examination has granted credits for one of their courses.
4. Because standards differ for granting credits for national examinations such as AP, CLEP and DSST, credits granted by other institutions for those examinations will be not be accepted in transfer. However, scores on those examinations may be submitted for possible LCC credits. See **EXAMINATIONS AND AP COURSES**.
5. General Education courses (college-level Writing/English, Science/Mathematics, Social Science, Humanities) are routinely accepted in transfer.
6. Physical Education courses may transfer, depending upon the program at Lansing Community College.
7. In some programs of study, credits earned in Math, Science, Technology, Health Careers, and/or other rapidly evolving fields may not be accepted in transfer due to age and/or content of courses and will be evaluated by appropriate program officials.
8. Independent study, field experience, and internships may transfer depending upon the level and appropriateness of the learning experience.
9. Study abroad courses may transfer depending upon the international institution offering the courses, the relationship between the international institution and the domestic institution, from which the student is transferring, and the level and appropriateness of the learning experience.
10. Remedial or developmental courses are not considered college level and do not transfer.
11. Each course that is accepted in transfer will be evaluated to determine if it will be considered as an equivalent of a corresponding Lansing Community College course. Evaluation of courses will be implemented on a consistent basis. Equivalencies have been established for the most commonly transferred courses from a number of colleges and universities in Michigan and the surrounding area. Those equivalencies

may be found at [www.lcc.edu/~admiss/general/incoming\\_credits/equivalencies.htm](http://www.lcc.edu/~admiss/general/incoming_credits/equivalencies.htm). Changes in students' curricula will not justify a change in how a course has been evaluated by the Enrollment Services Office. For example, should a student bring in credit for ACCG 210, that evaluation is permanent. If the student's curriculum requires a different ACCG course from that evaluated, if appropriate, a Course Substitution/Waiver form will be filled out at the department level.

12. In most cases, an accepted course that is not considered as an equivalent of a corresponding Lansing Community College course will be considered as general credit in a corresponding Lansing Community College program. A course that is granted general credit in an LCC program and meets LCC Core or MACRAO guidelines, may, upon college approval, be used to satisfy LCC Core or MACRAO requirements. See an LCC academic advisor or counselor for details.
13. Credit equivalencies will be converted using the following guidelines:
  - a. Quarter credits should be converted to semester credits (quarter credits x 2/3 = semester credits), without rounding up.
  - b. A transfer course, which equates to an LCC course, and is lacking one credit or less, should be designated as the equivalent LCC course. However, a transfer course must be at least three credits to be designated as equivalent to an LCC General Education Core course. Transfer students with fewer credits than those awarded for an LCC equivalent course may not have met all requirements of the equivalent course, and should meet with a program advisor.
  - c. When the overall grade point average of a transferring student is at or above a 2.0 on a 4.0 scale, the 1.0-1.5 or "D" grades may be accepted. Credits transferred in to specifically fulfill LCC General Education Core requirements and MACRAO requirements must be graded 2.0 ("C") or higher. When the transferring overall grade point average is below 2.0 on a 4.0 scale, only courses graded 2.0 ("C") or higher will be accepted. With the exception of credits transferred in to fulfill LCC General Education Core requirements, the student may petition the departmental chairperson of his or her academic department to waive a degree or certificate course requirement(s) in which he or she has previously earned the 1.0-1.5 or "D." Waiver of a course requirement does not provide credit for a course. The department chair will notify the Enrollment Services Office of waivers.
  - d. A student may request a review of the evaluation if he or she feels that a course description differs from the way in which it was evaluated. The department chairperson, in conjunction with the Registrar, will review the evaluation. Any resulting change(s) to the evaluation may be verified through the Enrollment Services Office.

### CREDITS EARNED AT NON-ACCREDITED INSTITUTIONS

The following evaluation information applies to transcripts from non-accredited institutions:

1. The Enrollment Services Office will forward a transcript from a non-accredited institution to the departmental chairperson of the department in which the student has enrolled.
2. The departmental chairperson has the following four prerogatives in evaluating transcripts issued by non-accredited institutions:

- a. Credit may be granted with demonstration by the student of skills commensurate with the performance required for satisfactory completion of existing courses.
  - b. Credit may be granted upon review of the content, goals, and objectives of a particular course with determination of whether the course is on par with existing courses of the College. It is the responsibility of the student to provide requested materials to enable proper evaluation.
  - c. Credit may be granted upon demonstration of proficiency in a particular existing course by a comprehensive examination.
  - d. Credit may not be granted.
3. Course equivalence will be granted using the same procedures that are used for credits earned at accredited institutions. However, credits earned at non-accredited institutions will not be granted course equivalence to LCC General Education Core courses.
  4. The departmental chairperson will return the transcript to the Enrollment Services Office and indicate in writing the credits granted and the course equivalency at Lansing Community College. The final transcript evaluation will have the signature of the appropriate divisional dean.
  5. When two or more instructional departments are involved, the departmental chairperson of the department offering the student's program will be responsible for consulting with the additional departmental chairpersons. When two or more departments are involved, the written reply to the Enrollment Services Office will include the signatures of each respective departmental chairperson and the respective dean or their designee(s).
  6. Credits from non-accredited institutions are evaluated by the departmental chairperson of the area in which the student is enrolled. If the student changes his or her curriculum, he or she should notify the Enrollment Services Office because there may be a difference in the evaluation.

### CREDITS EARNED IN FOREIGN INSTITUTIONS

Students with foreign education credentials (other than credits at Lansing Community College sister institutions) should contact one of the following National Association of Credential Evaluation Services, Inc. (NACES) member credential evaluation services and request a course-specific evaluation. (A course-specific evaluation converts grades, educational experiences, and levels of study into equivalents.)

- Educational Credential Evaluators, Inc., P.O. Box 514070, Milwaukee, WI 53203-3470; e-mail: eval@ece.org
- World Education Services, Inc., PO Box 5087, Bowling Green Station, New York, NY 10274-5087; e-mail: info@wes.org
- International Education Research Foundation, Inc. (medically-related credentials), P.O. Box 3665, Culver City, CA 90231-3665; e-mail: info@ierf.org

When LCC receives a NACES evaluation report, the Enrollment Services Office will compare it to the course requirements for the program indicated on the application. If LCC grants credit based on this report, it will become part of the student transcript at LCC.

### CREDITS EARNED AT MILITARY SCHOOLS

Military Schools – Credit may be granted for degree programs. Recommendations found in *Guide to the Evaluation of Educational Experiences in the Armed Services*, published by the American Council on Education, and available online at [www.militaryguides.acenet.edu](http://www.militaryguides.acenet.edu) are forwarded to the appropriate program for evaluation. If the experience is determined to provide appropriate preparation, credit is granted. For course work completed by the Defense Language Institute, Foreign Language Center at the Presidio of Monterey in California, credit is routinely granted.

### EXAMINATIONS AND AP COURSES

AP (Advanced Placement Program of the College Board) [www.ap-central.collegeboard.com/](http://www.ap-central.collegeboard.com/) – Credit or waiver of courses or general credit may be granted for the successful completion of AP courses and examinations. Specific recommendations will be determined by the AP grades received. Current required scores and equivalencies may be found at [www.lcc.edu/~admiss/general/incoming\\_credits/ape.htm](http://www.lcc.edu/~admiss/general/incoming_credits/ape.htm). Official high school transcripts listing AP grades should be sent to the Lansing Community College Enrollment Services Office.

CLEP (College Level Examination Program) ([www.collegeboard.com/clep/](http://www.collegeboard.com/clep/)) – Credit for courses or general credit may be granted for the successful completion of General Examinations and/or Subject Examinations. Specific recommendations will be determined by the scores received. Current required scores and equivalencies may be found at [www.lcc.edu/~admiss/general/incoming\\_credits/clep.htm](http://www.lcc.edu/~admiss/general/incoming_credits/clep.htm). CLEP transcripts should be forwarded directly to the Lansing Community College Enrollment Services Office from the CLEP Transcript Service, P. O. Box 6600, Princeton, NJ 08541-6600.

DSST (DANTES Subject Standardized Test) ([www.getcollegetcredit.com/](http://www.getcollegetcredit.com/)) – Credit or waiver of courses may be granted for the successful completion of DSST examinations. Specific recommendations will be determined by the DSST grades received. DSST transcripts should be forwarded directly to the Lansing Community College Enrollment Services Office.

### OTHER EXPERIENCES (WORKSHOPS, WORK EXPERIENCES, SEMINARS, ETC.)

For credit to be granted for a non-collegiate course, workshop, or seminar, the student must demonstrate the quality of their learning achievement through measurable means, e.g. course final examination, comprehensive examination, the completion of "Credit for Previously Acquired Knowledge and Learning Experience" as outlined in the College catalog, approved state or national licensure or certification, or other means specified in a formal, articulated agreement. Contact the Enrollment Services Office for specific details.

### APPEAL PROCEDURE

Students who believe these Guidelines and Procedures have not been implemented accurately in the evaluation of their transfer credits may initiate an appeal with the Enrollment Services Office in conjunction with the appropriate area or department. If dissatisfied with appeal results, the standard academic appeal process is available. (See the Lansing Community College catalog for more information.)

### CREDIT FOR PREVIOUSLY ACQUIRED KNOWLEDGE AND LEARNING EXPERIENCE

Lansing Community College recognizes that learning outside of the classroom is valid. Therefore, the College assesses extra-institutional learning as part of its credentialing function. Any student who has applied to Lansing Community College may apply for experiential learning credit by obtaining an Experiential Learning Processing Form from the Enrollment Services Office, Room 203 Gannon Building, (517) 483-1200.

NOTE: Lansing Community College's decision to award credit for experiential learning does not obligate any other institution to accept such credits in transfer. Receiving institutions reserve the right to assess transcripts of incoming students and award credit as they see fit. Credits received by students that are based on experiential learning may not be used for financial aid or veteran's benefits eligibility. Some Lansing Community College courses are excluded from experiential learning consideration.

Lansing Community College does not accept the transfer of credit for experiential learning awarded at other institutions.

### Application Procedures

Relevant aspects of personal and professional experience gained through actual job-related activities and special training experiences may be applied to an academic program at Lansing Community College. Learning experiences must directly relate to a specific course or courses

required within a Lansing Community College program (curriculum) or the LCC General Associate Degree. These experiences must have been obtained from a nonacademic source or not otherwise be available for academic credit through the transfer process outlined earlier. The student will be asked to declare his or her program of study on the Experiential Learning Application.

Prior to payment of a \$25.00 processing fee and submission of a portfolio of supporting documents, the student is advised to review with the academic department in which credit is being sought the probability of credit being granted. Students must then submit the completed Experiential Learning Processing Form to the Enrollment Services Office including as much supporting documentation as possible. The student must also attest by his or her signature that the information submitted is true to the best of his or her knowledge. The processing fee must accompany submission of the form and portfolio. The processing fee is not refundable.

Upon completion of the portfolio assessment, a fee of the resident tuition rate per credit hour will be charged for those credits which are determined awardable and which apply to the student's program (curriculum). Fees are subject to change by the Board of Trustees without prior notice. A student will have three (3) months from the date of credit authorization to make selections and pay all fees in full.

### Documentation

The student must document all experiential learning. The purpose of the documentation is to substantiate that a student's knowledge and/or experience equates to specific Lansing Community College courses. The documentation must therefore be arranged within the application portfolio on a course-by-course basis and should demonstrate knowledge and/or skill equivalent to at least 80 percent of the course objectives. Documentation may be defined as, but not limited to, complete job descriptions, copies of course materials and outlines, certificates, training reports, signed supervisory verifications and evaluations on letterhead, and any other descriptive information that may provide a clear understanding of a student's background and competencies. Lansing Community College requires certification that the work or training experience is the student's own. The College will retain the portfolio containing the Experiential Learning Processing Form and all supporting documents.

### Assessment of Portfolio

The completed Experiential Learning Processing Form and portfolio of supporting documents will be forwarded by the Enrollment Services Office to the appropriate divisional academic leader. The academic leader will assign the portfolio to an appropriate and impartial assessor for review and credit assessment. Assessors have the responsibility for evaluation and assignment of academic credit for experiential learning.

In the evaluation process, the assessor will verify the relevance of the information stated on the Experiential Learning Processing Form and the accompanying documentation as it equates to the courses requested. The authorization of credit must be stated in terms of equivalent courses that are offered by LCC.

### Applicability of Credit

In determining whether it is appropriate to accept a student's experiential learning for credit, the major considerations should be the student's educational objective and extra-institutional learning achievement. The assessor will determine from documentation submitted the courses for which the student can be granted experiential learning credit. The student is responsible for determining how these courses may fit within their academic program (curriculum). Credit for experiential learning will be recorded on a student's official transcript on the basis of course-by-course equivalency and shall be prominently identified as credit for experiential learning. A maximum of 40 semester hours of experiential learning credit may be applied towards an LCC associate degree. (Twenty credits must be earned in attendance at Lansing Community College.)

### Student Appeal Procedures

Students who believe the evaluation of their experiential learning is incorrect may file a written appeal to the dean of the division in which the experiential learning credit is being sought. Appeals must be received within six months from the date the credit application was assessed. In such instances, the dean will conduct a procedural review to ensure that the student has been treated in a fair and nondiscriminatory manner. The decision of the dean shall be final.

### CREDIT BY EXAMINATION

#### Comprehensive Exams

A student may obtain credit for certain courses at the discretion of an instructor and department head by passing comprehensive examinations only during the semester in which the student is enrolled. The procedure a student uses to obtain comprehensive examination credit is as follows:

1. The student picks up an application for credit by examination at the Enrollment Services Office.
2. The student completes the required information on the application and takes the application to the department for instructor and departmental chairperson signatures of approval.
3. After obtaining the required signatures, the student returns the signed application to the Cashier's Office for payment of tuition.
4. The student will complete an examination for each course in which he or she hopes to receive credit.
5. An examination will not be given by the instructor until the student presents the appropriate payment receipt. No more than one examination will be given for a single payment.
6. The examination, after being evaluated by the instructor, will be maintained on file in the departmental office.
7. The Enrollment Services Office will contact the department and request the grade which was earned upon completion of the examination. A grade will be recorded for each comprehensive examination given.
8. The student will receive an official notice of the grade earned at the end of the semester in which the examination was taken or when processing has been completed.

## GRADUATION REQUIREMENTS, CERTIFICATES, AND DEGREES

### INSTITUTIONAL REQUIREMENTS FOR CERTIFICATES OF ACHIEVEMENT AND CERTIFICATES OF COMPLETION

Certificates of achievement and certificates of completion are groups of designated courses or a designated course in occupational areas. To receive a certificate of achievement or certificate of completion from Lansing Community College, a student must meet the following institutional graduation requirements:

1. Complete a course of study approved by the College and consisting of a minimum of 30 semester credits for a certificate of achievement and fewer than 30 semester credits for a certificate of completion with no more than 10 percent of these credits acquired on the pass/fail (P-Z) grading system. (See the *Degree and Certificate Programs* section of the catalog.)
2. Maintain a cumulative grade point average of 2.0 or above in all courses taken at the college.
3. Earn toward the curriculum at least one-third of the semester credits for the certificate in attendance at Lansing Community College. Credits earned through comprehensive exams will not be counted toward this requirement.
4. File an application for graduation with the Enrollment Services/Registrar's Office one semester preceding the semester of graduation.

5. Satisfy all general and specific requirements of Lansing Community College.

NOTE: Students seeking a certificate of achievement or certificate of completion may not follow curricular guides which predate their first semester of enrollment.

## INSTITUTIONAL REQUIREMENTS FOR ASSOCIATE DEGREES

To receive an associate degree from Lansing Community College, a student must meet the following institutional graduation requirements:

1. Complete a course of study approved by the College and consisting of a minimum of 60 semester credits with no more than 10 percent of these credits acquired on the pass/fail (P-Z) grading system. (See the *Degree and Certificate Programs* section of this catalog.)
2. Maintain a cumulative grade point average of 2.0 or above.
3. Earn toward the curriculum at least 20 semester credits for the Associate degree in attendance at Lansing Community College. Credits earned through comprehensive exams will not be counted toward this requirement.
4. Satisfy the College's General Education Core Requirements.
5. Satisfy all general and specific requirements of Lansing Community College.
6. File an application for graduation with the Enrollment Services Office one semester preceding the semester of graduation. A non-refundable \$25.00 Graduation Application Fee must accompany the application.

NOTE: Students seeking an associate degree may not follow curricular guides which predate their first semester of enrollment.

Those students who maintain a 3.75 or higher grade point average will be graduated Summa Cum Laude (with highest honors); those who maintain a 3.50-3.74 grade point average will be graduated Magna Cum Laude (with high honors); those with a 3.25-3.49 will be graduated Cum Laude (with honors). Students must complete 40 semester credit hours of work at Lansing Community College to qualify for honors.

General requirements for associate degrees offered by Lansing Community College are presented below. (For specific degree requirements, see the *Degree and Certificate Programs* section of this catalog.)

**Associate in Arts:** This is primarily a transfer degree. It is designed for students who intend to transfer to a four-year institution to pursue a baccalaureate degree in such fields as liberal arts, education, humanities, or the social sciences. Requirements: 60-63 credits, including a minimum of 17 LCC General Education Core credits, additional general education MACRAO requirements, subject matter concentrations (humanities, for example), and institutional associate degree requirements.

**Associate in Science:** This is primarily a transfer degree. It is designed for students who intend to transfer to a four-year institution to pursue a baccalaureate degree in such fields as mathematics, engineering, or the sciences. Requirements: 60-63 credits, including a minimum of 17 LCC General Education Core credits, additional general education MACRAO requirements, subject matter concentrations (mathematics, for example), and institutional associate degree requirements.

**Associate in Applied Arts:** This degree is designed for students who seek education and the acquisition of skills needed to enter the job market or to advance their current careers. This degree includes a concentration of courses in fields such as the visual arts or the performing arts. Requirements: 60-72 credits, including a minimum of 17 LCC General Education Core credits, specific career program requirements, and institutional associate degree requirements.

**Associate in Applied Science:** This degree is designed for students who seek education and the acquisition of skills needed to enter the job market or to advance in their current careers. This degree includes a concentration of courses in fields such as health care, manufacturing, and construction. Requirements: 60-72 credits, including a minimum of 17 LCC General Education Core credits, specific career program requirements, and institutional associate degree requirements.

**Associate in Business:** This degree is designed for students who

seek business education and the acquisition of business-related skills needed to enter the job market or to advance in their current careers. This degree includes a concentration of courses in areas such as marketing, management, and office administration. Requirements: 60-72 credits, including a minimum of 17 LCC General Education Core credits, specific career program requirements in business-related areas (marketing, for example), and institutional associate degree requirements.

**General Associate Degree:** This degree is a customized program of study that should be approved by an academic advisor or counselor. A minimum of 60 credits is required and includes the LCC General Education Core requirements. Students must also complete EITHER a minimum of 12 related credits in an area of study of their own choosing OR they must complete the credits listed on a transfer guide. (See *Transfer Information* in the catalog for a list of institutions for which transfer guides are available.) Students planning to transfer should see an academic advisor or counselor before enrolling in any course.

## LCC GENERAL EDUCATION REQUIREMENTS

In order to meet the needs of life-long learners in a constantly changing world, Lansing Community College believes that a common core of skills, knowledge, understanding, and reasoning is indispensable for all students granted an associate degree. This background is essential to every person as a productive worker and citizen and is a foundation upon which an individual can build a life-long pursuit of knowledge and education. In keeping with these beliefs, the College has established General Education Core requirements at the college level in the areas of communication, global perspectives and diversity, mathematics, science, and writing for students seeking an LCC associate degree. The student outcomes expected for each of the Core areas are presented below.

### 1. Communication

- Define and explain the nature of the communication process.
- Use language and nonverbal behavior to express ideas and feelings clearly and responsibly.
- Participate constructively in group/team discussions/activities.
- Research, prepare, and present oral and/or visual information effectively.
- Listen/interpret, with both literal and critical comprehension, in a variety of communication situations.

### 2. Global Perspectives and Diversity

- Describe and analyze the ways in which societies and/or world civilizations establish socio-cultural order and the effects of these on individuals and the societies and/or world civilizations.
- Describe and analyze how different societies and/or world civilizations have searched for truth, justice, and an understanding of what it means to be human.
- Describe and analyze how major ideologies within societies and/or world civilizations have resulted in peaceful and/or violent solutions to conflicts.
- Describe and analyze how major ideas, issues, values, and institutions in societies and/or world civilizations have shaped cultures and the effects these have on individuals.
- Describe, analyze, and examine the impact of the inclusion and/or exclusion of diverse perspectives of gender and ethnicity by societies and/or world civilizations.

### 3. Mathematics

- Use the strategies of arithmetic, geometry, and algebra to solve problems and effectively communicate the solutions in a variety of disciplines.
- Use, interpret and produce one or more representations of a function, including graphs in one or more variables.

### 4. Science

- Discuss and summarize basic knowledge of the nature, scope, purposes, and limitations of science and technology.
- Explain and apply the fundamental concepts of one of the sciences.
- Gather, analyze, interpret, and draw conclusions from empirical data.

- Use scientific knowledge and methods as tools to make decisions about contemporary issues involving science and technology.

### 5. Writing

- Use reading, writing, and critical thinking skills to analyze, synthesize, and evaluate abstract concepts and concrete information.
- Use the stages of the writing process effectively.
- Properly locate, incorporate, and attribute sources of information.
- Produce effective writings that are targeted to various academic, community, and/or professional audiences.
- Conform to conventions of grammar, punctuation, and spelling.

## HOW STUDENTS CAN SATISFY LCC GENERAL EDUCATION CORE REQUIREMENTS

All students must fulfill LCC General Education Core requirements in order to be awarded an associate degree. The ways in which students can satisfy these requirements are presented below. Because these may be revised each academic year, students should consult an academic advisor or the most recent catalog information to stay informed of current options for satisfying Core requirements. Students should also be aware that not all courses that satisfy the LCC Core transfer to all colleges. Students planning to transfer should see an academic advisor or counselor before enrolling in any course.

Effective Fall 2005, students can satisfy the General Education Core requirements for the areas of communication, global perspectives and diversity, mathematics, science, and writing in any of the following ways (a minimum of three credits is required for each of the areas):

1. Achieve a grade of 2.0 or higher in an approved Core course (credits in parentheses):

#### a. Communication

ARTS 102	Design & Communication	(3)
FREN 121	Elementary French I	(4)
GRMN 121	Elementary German I	(4)
JAPN 121	Elementary Japanese I	(4)
SIGN 160	Orientation to Deafness	(3)
SPAN 121	Elementary Spanish I	(4)
SPCH 110	Oral Communication in the Workplace	(3)
SPCH 120	Dynamics of Communication	(3)
SPCH 130	Fundamentals of Public Speaking	(3)
THEA 110	Introduction to Theatre	(3)

#### b. Global Perspectives and Diversity

ECON 120	Power, Authority & Exchange	(4)
ECON 260	Comparative Economic Systems	(3)
ENGL 211	World Literature I	(4)
ENGL 212	World Literature II	(4)
GEOG 200	World Regional Geography	(4)
HUMS 160	Mythology	(4)
HUMS 211	History of Art I	(4)
HUMS 212	History of Art II	(4)
HUMS 213	World Civilizations I	(4)
HUMS 214	World Civilizations II	(4)
MGMT 234	Diversity in the Workplace	(3)
MUSC 240	World Music History I	(4)
MUSC 241	World Music History II	(4)
GADM 275	Cultural Differences in Business	(3)
PHIL 211	World Philosophies I	(4)
PHIL 212	World Philosophies II	(4)
POLS 260	Comparative Political Systems	(3)
POLS 270	International Relations	(3)
SOCL 120	Introduction to Sociology	(4)
SOCL 260	Race and Ethnicity	(3)
SPCH 280	Intercultural Communication	(3)

#### c. Mathematics

ELTE 121	Electrical Mathematics	(5)
MATH 112	Intermediate Algebra	(4)

MATH 115	Technical Math II	(4)
MATH 117	Math for Business	(4)
MATH 118	The Art of Geometry	(3)
MATH 119	Investigations with Math	(3)

NOTE: Non-Core mathematics courses at MATH 121 or above (122, 126, 130, 141, 151, 152, 161, 162, 201, 202, 253, 254, and 260) and STAT 170 and 215, implicitly demonstrate proficiency and therefore, satisfy the Core area requirement.

#### d. Science

ASTR 201	Introductory Astronomy	(4)
BIOL 120	Environmental Science	(4)
BIOL 127	Cell Biology	(4)
BIOL 145	Intro Anatomy and Physiology	(4)
BIOL 202	Human Physiology	(4)
CHEM 135	Chemistry In Society	(4)
CHEM 145	Introduction to Forensic Chemistry	(4)
CHEM 151 and 161	General Chemistry Lecture I and Laboratory I	(4/1)
GEOL 230	Environmental Geology	(4)
ISCI 121	Integrated Science for Education I	(4)
ISCI 131	Integrated Science - Physical	(4)
METM 190	Metallurgy and Heat Treatment	(4)
PHYS 120	The Art of Physics	(4)
PHYS 200	Applied Physics	(4)
PHYS 221	Introductory Physics I	(4)
PHYS 251	Physics I: Mechanics	(5)

#### e. Writing

ENGL 122	Writing about Literature and Ideas	(4)
ENGL 132	Honors Writing - Literature and Ideas	(4)
WRIT 121	Composition I	(4)
WRIT 122	Composition II	(4)
WRIT 124	Technical Writing	(3)
WRIT 127	Business Writing	(3)
WRIT 131	Honors Composition I	(4)
WRIT 132	Honors Composition II	(4)

Descriptions for each of the above courses can be found at [www.lcc.edu/courses/](http://www.lcc.edu/courses/)

2. Achieve a grade of 2.0 or higher on a Comprehensive Examination (where appropriate and available) for an approved course in a Core area. Upon successfully completing the exam, the student receives LCC credit for the course. (A comprehensive exam is an exam for which the student completes an application, pays the tuition for the course, and receives the grade earned on the exam on his or her transcript.) See "CREDIT BY EXAMINATION".
3. Achieve a grade of 2.0 (71%) or higher on a Core Area Proficiency Examination, where appropriate and available. The Core proficiency examination must be passed at a 2.0 (71%) level or higher. Each exam is specific to a single course in a core area and is administered for a \$50 fee in the Assessment Center, Room 200, Gannon Building. Core Area Proficiency Examinations may only be taken once to satisfy the core area.
4. In mathematics, achieve a grade of 2.0 or higher in any non-Core mathematics course, at STAT 170, STAT 215, MATH 121 or above.
5. Present evidence of an earned associate degree (or higher) from an accredited college or university.
6. If no degree has been earned, transfer in comparable course credit for an approved core course from an accredited institution. General credit does not apply unless documentation for the Core area learning outcomes is provided and approved by the appropriate Instructional Office and departments.
7. Establish appropriate course credit through the Advanced Placement Examination (AP), College Level Examination Program (CLEP), DANTES Subject Standardized Tests (DSST), International Baccalaureate (IB), and/or others as recognized by LCC.

- Establish credit for an approved course through the Experiential Learning Process. See [www.lcc.edu/catalog/policies\\_procedures/studentrecords.htm#knowledge](http://www.lcc.edu/catalog/policies_procedures/studentrecords.htm#knowledge)

The following do NOT satisfy General Education Core requirements:

- LCC placement test scores
- A waiver of any course that is also a Core course
- Completion of higher-level courses that are not approved Core courses (see mathematics information in #4 above for mathematics exception)

### PROCESS FOR GRANTING EXCEPTIONS TO THE INSTITUTIONAL CORE REQUIREMENTS FOR ASSOCIATE DEGREES

Core exceptions will be granted only as a result of verifiable college error, e.g. inappropriate advising, inaccurate printed materials. A student who wishes to formally appeal a determination that the Core requirement for an Associate degree has not been met, should appeal initially to the Department Chair of the Department offering the curriculum. The Chair should apply the following parameters in making a determination that an exception to current policy is warranted:

- Even if a college error has been documented, if the student has the time and ability to take the course(s) necessary to satisfy the requirement, the course(s) should be completed.
- The College does not waive a core requirement. In cases described in #1 above, substitutions are allowed only after consultation with the Chair of the department offering the core course for which a substitution will be made.

If the Chair determines that an exception is warranted, a recommendation should be sent to the Dean of the Division. The recommendation should include the student's name and student number, a brief summary of the situation and the reason(s) for the recommendation, and any other relevant documentation. If the Dean concurs with the Chair's recommendation, a recommendation should be sent to the Academic Affairs Office. The recommendation will be reviewed, and if any concerns arise, the matter will be further discussed with the Dean. If the recommendation is accepted, the Academic Affairs Office will inform the Registrar of the exception in writing with a copy to the Dean, and will also send written notification to the student with a copy to the Registrar.

The Chair notifies the student if the Chair believes an exception is not warranted. The student may appeal the Chair's decision to the Dean. If the Dean agrees with the Chair's decision, the Dean notifies the student. If the Dean does not agree with the Chair's decision, the Dean will forward a recommendation to the Academic Affairs Office.

The final decision for granting exceptions to the institutional core requirements rests with the Academic Affairs Office.

### HOW TO APPLY FOR THE ASSOCIATE DEGREE, CERTIFICATE OF ACHIEVEMENT, OR CERTIFICATE OF COMPLETION

Prior to submitting an application for a degree or certificate, students should consult with an advisor to review progress toward completing requirements. Substitutions or waivers for program requirements must be approved on an authorized form signed by the department offering the program. (Substitutions and waivers are not allowed for institutional degree or certificate requirements. See *Institutional Requirements for Certificates of Achievement and Certificates of Completion and Institutional Requirements for Associate Degrees* in this section.) The process of applying for a degree or certificate takes approximately one semester, so students should apply one semester in advance of the semester they plan to graduate.

Procedures are as follows:

- Complete an application for Associate Degree, Certificate of Achievement or Certificate of Completion. These applications are available in the Enrollment Services Office.

- Attach a copy of the curricular guide (program of study) for the degree or certificate being sought. Note: Students may not follow a curricular guide that predates their first semester of enrollment. The requirements must be met by the semester the curricular guide expires.
- An application for a certificate and the curricular guide are to be returned to the Enrollment Services Office. If a department has authorized program substitutions or waivers, the completed and signed form(s) must accompany the application.
- An application for an associate degree, the curricular guide and a \$25.00 non-refundable Graduation Application Fee are to be returned to the Cash Operations Office. If a department has authorized program substitutions or waivers, the completed and signed form(s) must accompany the application.
- If the Enrollment Services Office determines that there are requirements NOT met, the student will receive a report specifying the unmet requirements which must be completed.
- If all the requirements are met, the student will receive a letter indicating that the degree or certificate will be awarded.
- The LCC transcript will show the degree or certificate awarded.
- Diplomas and certificates are mailed to students during the semester after degrees or certificates have been awarded.

### TRANSFER

Students planning to transfer to another institution should be aware that universities and colleges differ widely in the courses they accept for transfer. A student intending to transfer should follow the transfer guide of the institution to which he or she intends to enroll. Transfer guides are not LCC degree guides. In order to achieve maximum transferability of courses, students should consult with an academic advisor or counselor. (See the *Transfer Information* section of this catalog for more information about transfer programs.)

### REGULATION FOR THE GRANTING OF ADDITIONAL ASSOCIATE DEGREES

Any student who received an associate degree from Lansing Community College or any other accredited community college may be awarded a second associate degree subject to the following stipulations:

- For each additional associate degree, a minimum of 10 semester credit hours must be completed at LCC in the division in which the degree is sought, or on the curriculum guide, non-repetitive of previously earned credits. (Note: The institutional associate degree requirement of 20 credits earned at LCC must be met by those students not receiving their first degree at LCC.)
- All requirements for an associate degree in arts, applied arts, business, science, or applied science must be met.
- The College's General Education Core requirements must be satisfied.
- No additional degree will be granted in the same curriculum in which the first degree was earned.
- Exceptions to the above should be appealed to the Academic Affairs Office.

### REGULATION FOR GRANTING AN ASSOCIATE DEGREE WHEN THE STUDENT HAS AN EARNED BACHELOR'S DEGREE

A student who has earned a bachelor's degree from an accredited American college or university which has a general education requirement may be awarded an associate degree at Lansing Community College subject to the following requirements:

- For each associate degree, a minimum of 10 semester credit hours must be completed at Lansing Community College in the division in which the associate degree is sought. The Lansing Community College cumulative grade point average must be at or above a 2.0 level.
- All requirements for an associate degree in arts, applied arts, business, science, or applied science must be met.

3. The College's General Education Core requirements are waived.
4. The associate degree must be within a specific program or curriculum.
5. Exceptions to the above should be appealed to the office of the dean of the division in which the associate degree is sought.

### ASSURANCE OF QUALITY

Lansing Community College offers assurance — a guarantee — to its students; prospective employers; and receiving transfer colleges, universities, and technical training institutions, those individuals who have earned LCC degrees or certificates are competent to perform in their areas of major study.

Transferring students who have earned an official Lansing Community College certificate or degree should be able to perform competently in the area in which they majored or specialized at Lansing Community College.

Non-transferring students who have earned an official Lansing Community College certificate or degree should be able to perform competently in the area in which they majored or specialized at Lansing Community College.

A Lansing Community College graduate may be permitted to retake a specified course or courses, when next offered, with no tuition or fee charge by submitting his or her request to the Enrollment Services Office along with supporting documentation from the institution to which he or she has transferred or from his or her employer, whichever is appropriate.

Because unused skills and knowledge can decay rapidly, the assurances offered herein will be in effect for one year from the date the course or courses in question were taken at Lansing Community College.

## STUDENT RIGHTS, RESPONSIBILITIES, AND CONDUCT

The College adheres to the principle that the campus climate provides for students' maximum freedom and necessary order. In order to ensure this principle, the College has established procedures for the redress of grievances by individuals accused in such proceedings. In addition, general rules and regulations and a Student Code of Conduct have been established by the College to ensure the protection of student rights and the efficient operation of College programs. In cases of noncompliance with these regulations or a violation of the Student Code of Conduct, the College will impose discipline that is consistent with the impact of the offense on the College community (See SANCTIONS below). The College also reserves the right to pursue criminal and/or civil action where warranted. The College rules and regulations and Student Code of Conduct shall apply from the time of admission to the college and continue as long as the student remains enrolled at the college. They shall also be applicable to a student's conduct even if the student withdraws from school while a disciplinary matter is pending.

If an individual has violated the College rules and regulations or Student Code of Conduct on college property while not enrolled as a student at the college, but then later seeks to enroll, he or she must first contact the Dean of the Student and Academic Support/Strategic Enrollment Management Division. The same Due Process procedures listed below will be followed to determine an admission decision.

### GENERAL RULES AND REGULATIONS

#### Access to College Buildings

Access to College buildings after normal hours of operation is restricted. Students are not allowed in buildings after hours unless specific written permission has been given to a student to use a specific room or laboratory by the College department overseeing that room or laboratory. Students found in buildings after hours could be subject to College discipline, as well as criminal trespassing charges.

Access to some areas of College buildings are restricted even when a building is open for normal operation. These areas include, but are not limited to mechanical rooms, communication closets, storage areas, construction areas, or classrooms or laboratories that are closed. Any student found in a restricted area without permission could be subject to College discipline, as well as criminal trespassing charges.

#### Assembly

No person or persons shall assemble in a manner that obstructs the free movement of persons about the campus or the free and normal use of College buildings and facilities or prevents or obstructs the normal operations of the College.

#### Attendance

Students are expected to attend all sessions of each course in which they are enrolled. Failure to do so will result in academic penalty or withdrawal from the class. Absence for any reason, including illness or late registration, in no way relieves the student of the responsibility for completing all work in the course to the satisfaction of the instructor in charge. When a student receives a faculty-initiated notice of nonattendance, it is the student's responsibility to contact the instructor.

When a student cannot attend class due to illness or other extenuating reasons, the class instructor should be notified.

#### Cell Phones

The use of cell phones during class interferes with the instructional process and is therefore prohibited. Camera cell phones and video cell phones are prohibited in locker rooms and restrooms. (See Administrative Withdrawal policy C.)

#### Children on Campus

Children under the age of 16 must be accompanied by a parent or guardian at all times while on campus. Exceptions are made only for enrolled students whose parent or guardian has signed a written release of responsibility. The learning environment of classrooms and labs must remain free of distractions for students. Children must remain out of these areas. Children enrolled in LCC classes requiring access to labs and classrooms where there is equipment and/or supplies that might prove dangerous will need to provide a signed release form from their parent or guardian.

#### Classroom Visitation Policy

Only those persons enrolled in a class, or those persons who have authorization to be in attendance for a particular class, will be permitted to attend the class. Authorized persons may include, but are not limited to, those individuals hoping to gain a seat in a particular class pursuant to opening seats, those persons in attendance to assist students identified by the Office of Disability Support Services, guest speakers, and/or a prospective student wishing to attend the college during an upcoming academic year. If an unauthorized visitor refuses to leave a classroom or laboratory, assistance should be sought from the department chair, dean's office, and/or Public Safety.

Faculty members will have discretion relative to permitting visitors into a classroom or laboratory, consistent with department policy. Appropriate consideration should be given to issues of safety, resources, fairness, disruption, etc., before allowing such visits. Due to liability concerns, faculty should notify their department chair or designee about visitors in the classroom at least 24 hours prior to the class meeting. In situations where 24-hour advance notice is not possible, the department chair or designee should be informed at the earliest opportunity. Departments may establish procedures regarding students sitting in on a closed section.

Advice concerning classroom visitation is available through LCC's Office of Risk Management (483-1730).

#### Computer Resources – Acceptable Use

The LCC *Acceptable Use Policy* describes the policies and guidelines for the use of the College's computer resources. Use of College-owned

computer resources is a privilege extended by the College to students, employees, and other authorized users as a tool to promote the mission of the College. All users agree to be bound by the terms and conditions of the *LCC Acceptable Use Policy* at the time they complete an account application form. Copies of the *LCC Acceptable Use Policy* are available at the Library Circulation Desk and may also be accessed on the World Wide Web. The URL is [www.lcc.edu/policies/policies\\_1.htm#ACCEPTABLE\\_USE\\_POLICY](http://www.lcc.edu/policies/policies_1.htm#ACCEPTABLE_USE_POLICY).

### Disclosure of Health Concerns

Lansing Community College takes appropriate and reasonable precautions to protect the health and safety of students in the classroom. Some courses may require students to complete federal, state and college regulatory training and testing as mandated by law. Students must be in compliance with regulations and laws at both LCC and any off-campus site(s) where they are assigned. Additionally, some courses may require students to work with chemicals and/or equipment which may be hazardous to some students, such as those with certain medical conditions. Students should inform instructors of any special health-related conditions which may be negatively affected by instructional materials or equipment used in the classroom. Students with special health concerns are strongly encouraged to raise any questions about such matters prior to their enrolling in a class.

### Dress

Students are expected to dress in an appropriate fashion, having in mind the activity in which they are engaged, while on College property and when attending College-sponsored events. Specific attire, not limited to but including appropriate footwear, safety glasses, safety hats, shields and aprons, may be required when the health and safety of the individual student or other members of the College community are to be protected.

### Examinations

Students are required to take examinations at the appointed time and place in order to receive credit for a course. Generally, examinations are given during the regularly scheduled class period during the last week of the semester.

### Field Trips

Students participating in all College-sponsored activities, including field trips and athletic events, must abide by all College rules. Student organization field trips must be planned, organized, and approved according to the Student Life Policies and Procedures for Student Organizations, and, where applicable, the parking and transportation services unit of the Police and Public Safety Department. Organizations which function outside of these policies and procedures may be put on probation and suspended if appropriate.

### Financial Responsibility

Students shall remain current on their financial obligations to the College. Students owing money to the College in respect to such matters as fees, loans, library fines, driving or parking penalties, etc., at the end of an academic semester, will have the publication of their grade report and/or official transcripts delayed, and the student will not be permitted to register for a succeeding semester until such accounts are paid.

### Games and Recreational Activities

Games of any kind may only be played in the recreational or athletic facilities which have been designated for such games. Applications for permission to play any game other than in an area designated for that purpose must be obtained from the Director of Student Life and Leadership.

### Guest Speakers

College regulations with respect to the participation of guest speakers are outlined in the Policy for Guest Speakers. The College requires orderly conduct, noninterference with College functions or activities, and identification of the sponsoring groups or individuals. Under no circumstances are members of the College community to be forced to be involuntary audiences.

### Identification Cards

All Lansing Community College students are issued an identification card. Students are required to show their current I.D. card whenever they check out books at the College libraries, use the Abel B. Sykes TLC Computer Lab, etc., or when they are requested by a member of the faculty or staff of the College. Misuse of College identification to obtain privileges to which the student or to which others are not entitled under existing regulations is a College offense that may result in suspension or dismissal. In addition, refusal to provide government issued identification to a police officer could result in arrest and prosecution.

### Media Materials

The federal copyright law, Title 17 of the United States Code, provides copyright protection of "original works of authorship," including "motion pictures and other audiovisual works." Thus, the use of video cassettes, DVD's, CD's and other digital media is restricted to private showings, and public showings are prohibited without the copyright owner's consent. Under the "fair use" limitation, copyrighted material may be used for purposes such as "teaching (including multiple copies for classroom use), scholarship, or research" without violation, and media materials purchased or rented by the College have the written consent of the copyright owners and, therefore, are legally appropriate for classroom use.

### Organizations

No student or student organization may use campus facilities, solicit funds, business, or support on the College campus unless such a student or student organization has been authorized by the Director of Student Life and Leadership. Approval of College clubs and organizations must be in accordance with guidelines documented in the Student Life and Leadership Office.

### Pets

In order to protect the health and safety of the members of the College community and preserve order on the campus, no pets, including but not limited to, dogs, cats, birds, and rodents shall be permitted within the buildings of Lansing Community College. This is not intended to exclude properly documented service animals or animals designated for laboratory experimentation purposes.

### Records

It is the responsibility of the student to give honest and complete replies to all questions included in application forms and other documents required by the College. Alteration, duplication, or falsification of a College document, form, or authorized signature is considered by the College to be an extremely serious offense and will be subject to disciplinary action.

### Smoking

Lansing Community College is a "Smoke-Free and Tobacco Free Zone. Except in designated areas, smoking or the use of tobacco products are prohibited on Lansing Community College property, including in any building, facility, or structure and on real estate that is owned or leased. This policy applies to all persons, including all students, staff and visitors.

### Student Evaluation of Instructional Quality

Because students expect quality in their learning experiences, Lansing Community College provides opportunities for students to participate in the evaluation and improvement of instruction. These opportunities include the following:

1. Periodically completing Student Evaluation Forms at the conclusion of courses. The forms are distributed by a person other than the instructor, and the instructor is not present at the time the students complete the forms.
2. Serving on various councils, boards, and committees of the College in order to provide input and student perspective in the development and evaluation of both instructional and support-service programs. These councils, boards, and committees are located in the various divisions of the College. Those students who



have interest in serving on or contacting members of these bodies may contact the Student Life Office or the office of the dean in the appropriate divisions.

Specific questions regarding student participation in the evaluation of instruction may be directed to the Office of the Dean of Student and Academic Support for clarification or appropriate referral.

## STUDENT CODE OF CONDUCT

The College hereby adopts the following Code of Conduct and prohibits all persons from engaging or participating in any of the practices or behavior listed below. Specific examples are used by way of illustration and are not meant to limit the practices or behaviors that may be deemed to violate the Code of Conduct.

### Assaults and Threats

Threats or violence to the health and safety of others; engaging in any act, such as fighting, physical assault, unlawful detention, interference with the freedom of movement of another person, verbal abuse, threats, stalking, intimidation, harassment, coercion or any other conduct through any mode of communication including, but not limited to, in person, in writing, through telephone, electronic mail or instant messaging, which endangers or has the reasonable potential to endanger the health or safety of any person on the College premises or at a College-sponsored function or any College student or employee in connection with the performance of his or her College duties is prohibited.

### Discrimination and Harassment

Discrimination, harassment and offensive conduct against any person, student, or staff member on the basis of race, color, religion, sex, national origin, creed, ancestry, familial status, age or disability, marital status, height, weight, sexual orientation, disability or veteran's status or other protected status (See the College's Discrimination and Harassment Complaint Process available in the catalog and at [www.lcc.edu/catalog/policies\\_procedures/equalopp.htm](http://www.lcc.edu/catalog/policies_procedures/equalopp.htm)) through any mode of communication including, but not limited to, in person, in writing, through telephone, electronic mail or instant messaging.

### Dishonesty

Acts of dishonesty, including, but not limited to the following:

1. Cheating: Each student is expected to be honest in his or her work. Cheating is dishonest. The term "cheating" includes but is not limited to: (1) use of any unauthorized assistance, including electronic devices/media or on-line resources, in taking quizzes, tests, or examinations; (2) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments such as those involving sounds as well as moving or still images; or (3) the acquisition of tests or other academic materials without permission of the faculty or staff to whom the material belongs. Any interaction with any person other than the instructor or proctor in a testing situation may be interpreted as cheating. Academic honesty is twofold on the part of the student; first, not to cheat, and second, not to enable others to cheat.
2. Plagiarism: Each student is required to be honest in his or her work. Plagiarism is dishonest. Plagiarism includes, but is not limited to, the use, by paraphrase or direct quotation or the inclusion of electronic sources, of the published or unpublished work of another person without full and clear acknowledgment. When producing work for a course, students are expected to present their own ideas and to appropriately acknowledge the incorporation of another person's work. Not doing so is dishonest.

### Disruptive Behavior

Behavior that interferes with normal college-sponsored activities, including, but not limited to, the instructional process, the classroom - both on-campus and virtual, studying, teaching, research, college

administration, disciplinary procedures, extracurricular and co-curricular activities, designated areas of activities, fire, security, or emergency services; or inciting others to commit disruptive behavior.

### Lewd Behavior

Behavior that is lewd or indecent is prohibited. Such behavior includes, but is not limited to the following: including obscene remarks, exposing oneself in an indecent manner, entering restrooms against the gender designation, engaging in sexual activities on college property.

### Drug and Alcohol Regulations

In recognition of (1) the serious health risks associated with the illegal use of controlled substances and (2) the abuse of alcohol, and in conformance with the Board of Trustees policies 4416 and 7820, as well as the Drug-Free Schools and Communities Act Amendments of 1989 (20 U.S.C. 3171, et seq.), the following regulations are effective immediately:

1. Students may not manufacture, distribute, dispense, possess, or use alcoholic beverages on College premises.
2. Students, employees, and guests may not unlawfully possess, use, or distribute controlled substances and alcohol on College premises or when engaged in College activities such as conferences or field trips.
3. Students will not use College funds for the purpose of purchasing alcoholic beverages or controlled substances.
4. Being under the influence of alcohol or any controlled substance while on College premises or engaged in College activities is prohibited.
5. Students, employees, and guests are personally accountable for knowledge of federal, state, and local laws relating to alcoholic beverages and controlled substances, the minimum drinking age, transporting open containers of alcoholic beverages, and false representation of age by a minor.
6. As a condition of his or her employment, each employee of the College shall agree to abide by the terms contained within this policy. Violation of any of these terms by College employees may result in disciplinary action, up to and including termination. The College may require satisfactory participation in a substance or alcohol abuse assistance or rehabilitation program for an employee who violates any of the prohibitions listed above.
7. As a further condition of his or her employment, each employee of the College shall agree to notify the College of any criminal drug statute conviction for a violation occurring on College premises or while engaged in College activities, no later than five (5) days after such a conviction. Upon receiving notice of such conviction, the College shall take appropriate disciplinary action within thirty (30) days thereafter.
8. Violation of this regulation by students may result in disciplinary action up to and including expulsion from the College and referral for prosecution. A lack of legal conviction or relevant laws is not a defense in a charged violation of this regulation.
9. Guests on College premises are expected to follow the above requirements. Failure to do so may result in a request to leave College property or College activities.
10. In the spirit of providing a safe, healthy and drug-free environment, the College will:
  - a. Continue to offer educational programs that support a drug-free campus and workplace as a normative social value;
  - b. Continue to offer opportunities for substance abuse counseling accessible by students and College employees;
  - c. Continue to make referrals to appropriate counseling professionals and/or agencies within the community to help students and employees who may benefit from such counseling;
  - d. Incorporate in classes throughout the curriculum, where appropriate, references and class-related assignments related to the medical, legal, social, and wellness issues inherent in a drug-free campus and workplace;
  - e. Distribute copies of this regulation to all new students and employees.

11. Substance abuse is a serious but treatable condition or disease that can lead to short-term or long-term physical and psychological consequences, including but not limited to dependence, damage to the nervous system, heart and respiratory conditions, and death.
12. A "controlled substance" is defined as one: 1) which is not legally obtainable; 2) which is being used in a manner different from that prescribed; or 3) which is legally obtainable but has not legally been obtained. (21 U.S.C.821:MCLA, 333.7101, et. seq.)
13. A "conviction" under this policy is defined as a defendant pleading guilty or no contest and/or a guilty finding by a court of law.

### Failure to comply with College officials

Failure to comply with directions of College officials, Police and Public Safety Staff, or any other law enforcement officers acting in the performance of their duties is prohibited. Furnishing false information to any College official, faculty member, or officer is prohibited.

### Fighting

Fighting on College property is prohibited except for contests or exhibitions held or sponsored by the College or a recognized College organization.

### Laws

Students shall obey the laws enacted by federal, state, and local governments. Violations of such laws on the College premises or at a College-sponsored function are a violation of the Code of Conduct.

It is appropriate that the students be aware of Act 26 of the Public Acts of 1970:

**Sec. 1.** A person is guilty of a misdemeanor, punishable by a fine of not more than \$500.00, or by incarceration in the county jail for not more than 30 days, or both:

1. When the chief administrative officer of a publicly owned and operated institution of higher education, or his or her designee, notifies the person that he or she is such an officer or designee and that the person is in violation of the properly promulgated rules of the institution; and
2. When the person is in fact in violation of such rules; and
3. When, thereafter, such officer or designee directs the person to vacate the premises, building, or other structure of the institution; and
4. When the person thereafter willfully remains in or on such premises, building, or other structure; and
5. When, in so remaining therein or thereon, the person constitutes:
  - a. A clear and substantial risk of physical harm or injury to other persons or of damage to or destruction of the property of the institution, or
  - b. An unreasonable prevention or disruption of the customary and lawful functions of the institution, by occupying space necessary therefore or by use of force or by threat of force.

**Sec. 2.** A person is guilty of a misdemeanor, punishable by a fine of not less than \$200.00 and not more than \$1,000.00, or by incarceration in the county jail for not more than 90 days, or both, who enters on the premises, building, or other structure of a publicly owned and operated institution of higher education, with the intention to, and therein or thereon does in fact, constitute (a) a clear and substantial risk of physical harm or injury to other persons or of damage to or destruction of the property of the institution, or (b) an unreasonable prevention or disruption of the customary and lawful function of the institution, by occupying space necessary therefore or by use of force or by threat of force.

**Sec. 3.** This act shall take effect August 1, 1970.

### Theft or other abuse of computer facilities and resources, including but not limited to:

- a. Unauthorized entry into a file, to use, read, or change the contents, or for any other purpose.

- b. Unauthorized transfer of a file.
- c. Use of another individual's identification and/or password.
- d. Use of computing facilities and resources to interfere with the work of another student, faculty member or college official.
- e. Use of computing facilities and resources to send obscene or abusive messages.
- f. Use of computing facilities and resources to interfere with normal operation of the college computing system.
- g. Use of computing facilities and resources in violation of copyright laws.
- h. Any violation of the college's Acceptable Use Policy ([www.lcc.edu/policies/policies\\_1.htm#ACCEPTABLE\\_USE\\_POLICY](http://www.lcc.edu/policies/policies_1.htm#ACCEPTABLE_USE_POLICY)).

### Unauthorized use or possession of College keys

Unauthorized possession, duplication, or use of College keys is prohibited. Unauthorized use of or presence on college premises, facilities or property is prohibited.

### Vandalism/Theft

Property of the College, as well as that of individuals, should be respected. Vandalism or theft of any kind, the destruction or mutilation of computer or media resources, materials, equipment, buildings, or grounds of the College, is inconsistent with the objectives of the College and good citizenship and will result in disciplinary action.

### Weapons and Explosives

The possession of weapons, or explosives on the property of the Lansing Community College is prohibited. (This does not apply to authorized law enforcement officers.) The definition of a weapon includes but is not limited to a pistol or other firearm or dagger, dirk, razor, stiletto, or knife having a blade over 3 inches in length, or any other dangerous or deadly weapon or instrument.

"College Property" covered by this policy includes, without limitation, all College owned or leased buildings and surrounding areas such as sidewalks, driveways and parking lots under the College's ownership or control. College vehicles are covered by this policy at all times regardless of whether they are on College property.

### CRIMINAL AND/OR CIVIL ACTIONS

When the actions or conduct of a student warrant the involvement of the Police and Public Safety Department, a complaint report may be initiated. Should a student initiate the complaint and the Police and Public Safety Department is involved, a complaint report is taken.

A crime committed on the College campus is investigated and referred to the appropriate government office for prosecution. The decision to prosecute is made by the Prosecutor's Office. This action is separate from the Due Process procedure of the College. Proceedings under the College's Due Process Procedures may be carried out prior to, simultaneously with, or following civil or criminal proceedings off campus.

Any violation of City, County, State or Federal laws while on LCC property or attending LCC sponsored events is considered a violation of the Student Code of Conduct.

### DUE PROCESS

Lansing Community College holds firm to the philosophy that matriculation in college does not deny any rights of citizenship to a student. At the same time, matriculation in college does not relieve a student of the essential responsibilities of citizenship. Thus, the College is constantly aware of the joint responsibilities, shared by the student body and the College, to uphold the principles of "due process" in all disciplinary action.

It is the College's intention to foster and promote an environment of cooperation among faculty, staff, and students. However, conflicts that require third-party intervention sometimes exist. While there are formal processes for resolving conflicts, it is the goal of the College to achieve resolution as rapidly and as close to the origin of conflict as possible through mediation. To this end, the Director of Student Success and

the Director of Equal Opportunity are available to assist with mediating situations at their lowest level or to direct the parties involved to the person(s) or department(s) that can best mediate the occurrence. This mediation is predicated on the voluntary agreement of both parties. Matters that are considered too extreme may require immediate referral to the formal 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 Lansing Community College. Due Process is that process which prevents rights from being taken away from an individual without a fair hearing. Any questions regarding Due Process should be directed to the office of Director of Student Success at (517) 433-9671.

### Interim Due Process Suspension

If a student's misconduct gives cause for belief that the physical or emotional safety of any member of the College community is threatened or that any personal or public property is jeopardized, the student's right to be on campus can be immediately suspended. A suspension of this type is called an Interim Due Process Suspension. Interim Due Process Suspensions will take effect immediately upon direction of the Director of Student Success or the Dean of the division where the misconduct occurred and will last for no more than 10 days. A procedural due process hearing with proper notifications will be conducted during this 10-day period. The 10-day period may be extended for good cause by the Director, Student Success, Dean of the division imposing the suspension or by agreement with the student. (See section entitled *Due Process*.)

### Sanctions

In cases of noncompliance with College rules and regulations or a violation of the Student Code of Conduct, the College will impose discipline that is consistent with the impact of the offense on the College community. Progressive discipline principles will be followed in that the student's prior discipline history at the College will be taken into account. Disciplinary action taken against a student may include, but is not limited to, one or more of the following:

- Grade or academic penalties – A reduction of course or assignment grade or credit.
- Oral Warning — A verbal warning to the student that the student is violating or has violated College rules, regulations or Code of Conduct.
- Written Warning – A written warning to the student that the student is violating or has violated College rules, regulations or Code of Conduct.
- Probation — Probation is for a designated period of time and includes the probability of more severe disciplinary sanctions if the student is found to be violating any college rule, regulation(s) or Code of Conduct during the probationary period. A judicial hold will be placed on the student's account during the probationary period but may be removed temporarily at the discretion of the Director of Student Success.
- Loss or Restriction of Activities or Privileges—The restriction or denial of specified activities or privileges for a designated period of time.
- Restitution—Compensation for loss, damage, or injury. This may take the form of appropriate service and/or monetary or material replacement.
- Suspension—Separation of the student from the College for a definite period of time after which the student is eligible to return. Conditions for readmission may be specified.
- Dismissal – Separation of the student from the College for an indefinite period of time. Conditions of readmission may be specified.
- Permanent Dismissal – Permanent separation of the student from the College.

## STUDENT APPEALS AND COMPLAINTS

LCC students may initiate Due Process through established appeal and complaint procedures. In the appeal process, students may appeal disciplinary action or academic decisions. In the complaint

process, students may lodge complaints regarding persons, policies, or procedures at the College. The Judicial Board will hear cases referred to it by administrative officers of the College or by individual students through the established appeal and complaint processes. The student has the right to request a public or private hearing, but the decision rests with the College, after considering the wishes of the parties involved.

### Student Appeals

A "line of appeal" is defined as the appropriate sequence of communication to be followed when appealing a decision or action. An "appeal" is defined as a request to review a previous decision and/or the process used in reaching the decision. The line of appeal to be followed will depend upon the type of case involved. In all cases, students are required to state their appeal in writing at the time they begin the appeal process. The following describes the different types of cases and the appropriate lines of appeal to be used in each case.

#### 1. Student Appeal of Disciplinary Action for Violation of General Rules and Regulations and Student Code of Conduct

When a student is accused of violating the general rules and regulations of the College or the Student Code of Conduct, except those involving academic rules and regulations, the procedures described below will be followed:

The student will receive written notification that an alleged violation has occurred. In the letter, the student will be directed to make an appointment with the appropriate College official to review the facts concerning the alleged violation in order to determine if formal charges should be prepared. After reviewing the facts with the student, a decision will be made whether to prepare formal charges.

In the event that the student fails to contact the appropriate College official within 5 (five) class days of receiving written notification (excluding Saturday and Sunday), a "hold" will be placed on the student's record which will result in the student's enrollment being delayed. The College official will then review the facts available without the student and make a decision whether to prepare formal charges.

If a decision is made to prepare formal charges, the student shall be notified in writing by an appropriate College official that he or she is being accused of violating a regulation and that he or she may elect to do one of the following:

- a. The student may admit the alleged violation and request, in writing, that the administrative officer take whatever action seems necessary;
- b. The student may admit the alleged violation and request a hearing before the Judicial Board regarding the discipline imposed;
- c. The student may deny the alleged violation, in which case the administrative officer shall refer him or her to the Judicial Board.

In the event that the student does not make an election of the three options available within 10 (ten) days, the administrative officer will take whatever actions seem necessary, including the imposition of appropriate sanctions.

When formally appealing a disciplinary action based on a violation of general rules and regulations of the College or the Student Code of Conduct, the student shall use the following line of appeal:

- a. The Director of Student Success (or his or her designee);
- b. The Judicial Board of the College;
- c. The President (or his or her designee).

**Note: At each level of the appeal process, a student will have up to 10 (ten) calendar days (excluding Saturday and Sunday) to appeal a decision after notification of that decision at a prior level.**

#### 2. Student Grade Appeals

Students have until the end of the 6<sup>th</sup> week of the following semester to appeal a grade. Instructors must keep a record of each student's progress, such as a grade book, for one year after a class has ended. Instructors who are not teaching or on campus the following semester (excluding summer) must submit their students' records to their academic department(s). Academic departments will collect and maintain these records.

The student shall use the following line of appeal:

- The person who initiated the decision or action in question and request reconsideration
- The Chair or head of the department involved (or his or her designee)
- The Dean of the division involved (or his or her designee)
- The Vice President of Academic Affairs (or his or her designee)

After review of the appeal, if the Vice President determines that there is insufficient justification to warrant further review, the appeal will be rejected. If the Vice President determines that the appeal warrants further review, the matter will be referred to a subcommittee of the Deans Council. The Vice President will inform the instructor, dean and student in writing of his or the Deans Council's decision within 30 days of the date the appeal was submitted.

- The President (or his or her designee).

If a student appeals beyond the initial decision maker, they shall submit their appeal in writing and include:

- Student's full name
- Student number
- Student's complete current address
- Student's current phone number
- Semester and year enrolled
- Course number and name
- Name of instructor
- Grade received
- Reason for appeal
- Supporting documents

**Note: At each level of the appeal process, a student will have up to 10 (ten) calendar days (excluding Saturday and Sunday) to appeal a decision after notification of that decision at a prior level. When a student wishes to appeal a grade, he or she must do so by the end of the sixth week of the following semester or summer session.**

### 3. Student Academic Appeals, other than Grade Appeals (Appeals of a Violation of Academic Rules and Regulations, or of Academic Disciplinary Action)

When formally appealing an academic decision or action—such as an academic charge based on a violation of the academic rules and regulations (cheating or plagiarism, for example), or an academic disciplinary action (loss of credit, for example)—the student shall use the following line of appeal:

- The person who initiated the decision or action in question and request reconsideration
- The Chair or head of the department involved (or his or her designee)
- The dean of the division involved (or his or her designee)
- The Judicial Board of the College
- The President (or his or her designee)

**Note: At each level of the appeal process, a student will have up to 10 (ten) calendar days (excluding Saturday and Sunday) to appeal a decision after notification of that decision at a prior level.**

### 4. Student Appeal of Administrative Withdrawal from Classes (for Nonattendance, Lack of Course Prerequisites, or Inappropriate Classroom Behavior)

Whenever the Enrollment Services Office receives a recommendation for an administrative withdrawal, the Enrollment Services Office will notify the student in writing that he or she is being administratively withdrawn. The lines of appeal for administrative withdrawal decisions are as follows:

- The dean of the division involved (or his or her designee)
- Judicial Board of the College
- President (or his or her designee)

**Note: In cases of administrative withdrawal, a student will have up to 5 (five) calendar days (excluding Saturday and Sunday) to appeal a decision after notification of that decision at a prior level.**

### 5. Student Appeal of Educational Records

Students have the right to request correction or amendment of information on educational records that are inaccurate, misleading, or which violate privacy rights or other rights as stated in the Family Education Rights and Privacy Act of 1974, as amended. The student shall use the following line of appeal:

- The director or leader of the department responsible for the record (or his or her designee)
- The dean of the division involved (or his or her designee)
- The Judicial Board of the College
- The President (or his or her designee)

If the request for correction or amendment of information is denied after the appeal process has been completed, the student may place a brief statement in the record commenting on the decision of the College.

**Note: A student will have up to five (5) calendar days (excluding Saturday and Sunday) to appeal a decision after notification of that decision at a prior level.**

### Student Complaints

Before initiating the formal appeal process at the divisional level, students are encouraged to first meet with the initial decision-maker involved (the instructor, for example) to attempt to resolve issues in an informal manner. When a student wishes to lodge a formal complaint regarding a person—except in cases of sexual harassment/discrimination (which is found in this catalog under *Student and Staff Sexual Harassment and Discrimination*)—the student is encouraged to use the following line of appeal:

- Chair or head of the department involved (or his or her designee)
- The dean of the division involved (or his or her designee)
- The Judicial Board of the College
- The President (or his or her designee)

**Note: At each level of the complaint process, a student will have up to 10 (ten) calendar days (excluding Saturday and Sunday) to appeal a decision after notification of that decision at a prior level.**

### Judicial Board

Due Process is the guarantee of student civil rights under the Constitution of the United States and the laws and regulations of Michigan and Lansing Community College. Due Process is that process which prevents rights from being taken away from an individual without a fair hearing. The student has the right to request a public or private hearing, but the decision rests with the College, after considering the wishes of the parties involved.

The Judicial Board shall hear the case and render a decision.

- Prior to a Judicial Board hearing, the student shall be entitled to the following:
  - Written notification of the time and place of the hearing;
  - A written statement of a decision rendered and/or charges so that the student may prepare his or her defense;
  - Written notification of the names of the witnesses directly responsible for having reported the alleged violation (unless to do so would compromise their safety) OR written notification of how the alleged violation came to the College's attention.
- In hearings involving more than one student, the Chairperson of the Judicial Board, at his or her discretion, may permit the hearings concerning each student to be conducted separately.
- The student shall be entitled to appear in person and present his or her defense to the Judicial Board and may call witnesses on his or her behalf. The student is also entitled to ask questions of any witnesses present at the hearing. Questions from the student to witnesses will be directed through the Chair of the Judicial Board.
- Pertinent records, exhibits, and written statements may be accepted as information for consideration by the Judicial Board at the discretion of the chairperson.
- The student may waive the right to appear before the Judicial Board. Should he or she elect not to appear, the student shall be considered to have waived the right to appeal, and the decision

at the prior level stands. If the Judicial Board is the initial decision maker, the hearing will still take place in the student's absence. The student may still request review by the President of the College (or his or her designee; See No. 14 below).

6. The student shall be entitled to be accompanied by a person of his or her choice. If this person is in the form of legal counsel, the student must notify the Office of the Director of Student Success at least 2 (two) days prior to the scheduled hearing date.
7. The student has the right to be assisted by any advisor he or she chooses, at his or her own expense. The student is responsible for presenting his or her own case and, therefore, advisors are not permitted to speak or to participate directly in any hearing before a Judicial Board.
8. All procedural questions are subject to the final decision of the chairperson of the Judicial Board. Formal rules of process, procedure, and/or technical rules of evidence such as those applied in criminal or civil court, are not used in Judicial Board Hearings.
9. Admission of any person to the hearing shall be at the discretion of the Chair of the Judicial Board.
10. The student shall be entitled to an expeditious hearing of his or her case.
11. Requests for a continuance shall be at the discretion of the Chair of the Judicial Board. A student should select an advisor whose schedule allows attendance at the scheduled date and time for the hearing, because delays will not normally be allowed due to the scheduling conflicts of an advisor.
12. The student shall be entitled to receive the decision of the Judicial Board in writing.
13. The College shall make a record of the hearing. The record shall be the property of the College. No other recording devices will be allowed.
14. A student who wishes to contest the decision of the Judicial Board may request that the President of the College (or his or her designee) review the decision of the Judicial Board. The student must request this review within 10 (ten) scheduled class days (excluding Saturday and Sunday) of notification of the Judicial Board's decision. Decisions rendered by the President (or his or her designee) will be final.

The Judicial Board's determination shall be made on the basis of whether it is more likely than not that the earlier determination is appropriate. If the Judicial Board is the initial decision maker, their decision shall be made on the basis of whether it is more likely than not that the accused student violated the college's rules and regulations or the Student Code of Conduct. Decisions rendered by the Judicial Board will be made by a simple majority vote of the total membership of the Judicial Board. Decisions rendered by the Judicial Board will be final unless appealed to the President. In addition, the Judicial Board is empowered to make recommendations based on decisions rendered.

### Membership of the Judicial Board

The Judicial Board will consist of the following members:

1. The Director of Student Success or his or her designee; (NOTE: This member will serve as chairperson. However, when the Judicial Board is hearing an appeal based on a disciplinary decision of the Office of the Director of Student Success, the Director of Student Success will relinquish the chair, and a temporary chairperson will be appointed.)
2. One College administrator appointed by the Director of Student Success;
3. Two students from the student body;
4. Two faculty members appointed by the dean of the division in which the decision or action in question was initiated, with one alternate faculty member appointed in the same way, to serve in absence of any faculty member. If the decision or action in question took place within the college at large, the faculty members will be appointed by the Dean of Student and Academic Success (or his or her designee) from the college at large;

5. In the event two or more divisions are involved, one faculty representative from each division and an equal number of student representatives will be in attendance.

### REGULATION REVISIONS AND ADDITIONS

Lansing Community College reserves the right to change or add to the rules and regulations at any time.

## EQUAL OPPORTUNITY AND NONDISCRIMINATION POLICY STATEMENT

### I. Purpose

Lansing Community College is committed to a policy of providing equal employment opportunity and equal education for all persons regardless of race, color, sex, age, religion, national origin, creed, ancestry, familial status, marital status, height, weight, sexual orientation, disability or veteran's status or other status as protected by law.

Equal employment opportunity is a legal, social and economic responsibility of the college and is provided in accordance with applicable federal and state laws and Lansing Community College policy. The college policy and practice at all levels assures the active and positive implementation of federal and state equal employment opportunity laws, executive orders, rules and regulations and College equal employment opportunity policies and guidelines.

The college prohibits retaliation or reprisals against any individual because she/he has filed a complaint or report, participated in an investigation, or otherwise opposed unlawful discrimination.

### II. Scope

This nondiscrimination policy applies to admissions, employment, access to and treatment in the college programs and activities. This policy applies to all persons employed by LCC, enrolled as a student, seeking admission to the college and/or requesting employment at or having contracts with the College.

### III. General

The College is committed to and reaffirms support of equal opportunity in employment, education and non-discrimination in employment and academic policies, practices and procedures and will examine periodically all employment and academic policies for discrimination on the basis of race, color, religion, sex, national origin, creed, ancestry, familial status, age or disability, marital status, height, weight, sexual orientation, disability or veteran's status or other protected status and take remedial action to correct such discrimination if it is found to exist.

The College values diversity and seeks talented students, faculty and staff from diverse backgrounds. The College does not discriminate in the administration of educational policies, programs or activities; admissions policies; scholarship and loan awards; athletic or other college administered programs or employment.

### IV. Responsibility

The College's Board Liaison/Associate General Counsel is responsible for preparing procedures to implement this policy.

Failure to follow this policy may result in disciplinary action up to and including termination or expulsion.

## HARASSMENT PREVENTION

### I. Purpose

Lansing Community College is an Equal Opportunity Employer and does not condone unlawful discrimination or related harassment on the basis of race, color, sex, age, religion, national origin, creed, ancestry, familial status, disability, marital status, height, weight, sexual orientation, or veteran's status in any employment or educational opportunity. Such harassment is unlawful and expressly prohibited, and the College will make all reasonable efforts to prevent it.

**II. Scope**

This policy applies to all persons who are employed at the college as well as all students.

**III. General**

General discriminatory harassment is any conduct which has the purpose or effect of unreasonably interfering with an individual's work or education performance, or of creating an intimidating, hostile, or offensive environment for work or learning.

Sexual harassment has been more specifically defined by state and federal law, and regulations to generally mean unwelcome attention of a sexual nature from someone in the workplace or classroom that substantially interferes with work or academic performance. It may include, but is not limited to, sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature when:

- A. Submission to or rejection of such conduct is made either explicitly or implicitly a term or condition of an individual's employment, academic standing or status in a course, participation in a program or activity or other term or condition of employment or education;
- B. Submission to or rejection of such conduct is used as the basis for evaluating or impacting academic or employment conditions affecting a person; or
- C. Such conduct has the purpose or effect of unreasonably interfering with an individual's work or education performance, or of creating an intimidating, hostile, or offensive environment for work or learning.

**Examples of Harassment**

Prohibited or unlawful harassment may take many forms. The following types of conduct are given as examples of harassment:

- Physical assault;
- Direct or implied threats that submission to sexual advances will be a condition of employment, work status, promotion, graduation, or letters of recommendation;
- Direct unwelcome propositions of a sexual nature;
- Unwelcome pressure for sexual activity;
- A pattern of conduct (not legitimately related to the appropriate subject matter of a course if one is involved) intended to discomfort or humiliate, or both, that includes one or more of the following:
  - Comments of a sexual nature; or
  - Sexually, racially, or discriminatory explicit statements, questions, jokes, or anecdotes;
  - A pattern of conduct that would discomfort or humiliate (or both) a reasonable person at whom the conduct was directed that includes one or more of the following: unnecessary touching, patting, hugging, or brushing against a person's body;
  - Insults or slurs based upon one's race, sex, ethnic origin, disability, religion, etc.

NOTE: The list above is not considered to be exhaustive or exact; rather, it contains illustrative potential examples of prohibited harassing behavior.

**COMPLAINTS OF DISCRIMINATION**

All complaints of harassment prohibited by this policy must be reported. When allegations of harassment are made, the Office of the Board Liaison/Associate General Counsel will conduct a fair and objective investigation. If the allegations of harassment are substantiated, the college will take prompt and appropriate corrective action.

Allegations of harassment will be dealt with promptly and appropriately. Where it is found to occur, appropriate corrective action, including appropriate disciplinary measures, will be taken. We encourage students and staff to utilize LCC's complaint process. However, multiple avenues for resolution and redress are available, including filing a complaint with the Michigan Department of Civil Rights, the Equal Employment Opportunity Commission, or other appropriate government agency.

Anyone who experiences harassment prohibited by this policy, or becomes aware that such harassment is directed toward another person should report it using the College's harassment Complaint Process or by

reporting the harassment to the Human Resources Department and/or the Office of the Board Liaison/Associate General Counsel.

Prevention of prohibited harassment is the responsibility of all employees. However, managers, supervisors, and faculty must set the example in treating all students, employees, and persons connected to Lansing Community College with mutual respect and dignity, in fostering a positive climate for learning and working, refraining from unprofessional conduct, and in taking appropriate action when conduct is disruptive, provoking, discriminatory, or otherwise unprofessional.

**IV. Responsibility**

The Board Liaison/Associate General Counsel is responsible for preparing procedures to implement this policy. Engaging in conduct, which constitutes prohibited harassment, may result in disciplinary action up to and including termination.

**V. Where To File A Complaint**

Any employees or students who believe that discrimination has occurred against themselves or others are urged to report the matter as soon as possible to:

Office of the Board Liaison/Associate General Counsel  
Lansing Community College  
Mail Code: 8100A  
Room 307 Administration Building  
(517) 483-5252

The Office of the Board Liaison/Associate General Counsel coordinates the investigation of complaints of discrimination, ADA and 504 issues. Title IX concerns can be directed to the Office of Student Success, 483-9671.

Students may file non-discrimination complaints, allegations of harassment and appeals with the Director of Student Success. The college's appeal process for non-discrimination complaints will be utilized to resolve these matters. For copies of the appeal form or further information contact:

Director, Student Success  
Lansing Community College  
Mail Code: 1130  
Room 204 Gannon Building  
(517)483-9671

*Failure to follow this policy may result in disciplinary action up to and including termination or expulsion.*

**AMERICANS WITH DISABILITY ACT, REASONABLE ACCOMMODATIONS AND SECTION 504 OF THE REHABILITATION ACT****I. Purpose**

Lansing Community College is committed to providing and maintaining a barrier-free environment so that individuals with disabilities can fully access employment, programs, services, and all activities of the college.

The college prohibits retaliation or reprisals against any individual because she/he has filed a complaint or report, participated in an investigation, or otherwise opposed unlawful discrimination.

**II. Scope**

This policy applies to all persons seeking reasonable accommodations from the college.

**III. General**

- A. Students who are seeking classroom and academic accommodations should be directed to the Office of Disability Support Services (ODSS) Staff. The ODSS staff also serves as a resource for answering questions that LCC faculty and staff have when working with students with disabilities. ODSS is located in the Counseling and Advising Department, Room 204, Gannon Building and can be contacted by calling (517) 483-1904.

Students alleging discrimination based on a disability and/or failure to accommodate a disability should be directed to the Office of the Board Liaison/Associate General Counsel.

- B. Faculty and staff at Lansing Community College shall contact the Office of the Board Liaison/Associate General Counsel and follow these three steps to request an accommodation:

1. The faculty and staff must self-identify himself/herself as a person with a disability.
2. The faculty and staff should make a written request for an accommodation, and
3. The faculty and staff must provide appropriate documentation of his or her disability and the need for an accommodation if so requested by the College.

Nothing in this document shall be construed to waive the College's right to contest whether an employee or applicant is disabled or is entitled to an accommodation.

Employees may self-identify as a person with a disability. Self-identification as a person with a disability alone is not sufficient to obtain an accommodation. Rather, the appropriate procedures must be followed to request and, if appropriate, obtain an accommodation.

- C. Requests For Accommodation

A person with a disability may or may not need an accommodation. If a faculty or staff member believes that he/she needs an accommodation, he/she may request an accommodation by completing a Faculty/ Staff Request for Accommodation form (Attachment A) and an Employee Medical/Documentation form (Attachment B). (Documents A and B may be obtained in the Office of Human Resources).

- D. Medical Documentation

At any time during the accommodation request process, the College may ask the faculty or staff member for documentation (or additional documentation) of the disability and/or of the need for an accommodation. The faculty or staff will be required to provide that documentation.

- E. Confidentiality

Medical documentation, as well as Faculty/Staff Request for Accommodation forms, will be maintained in a separate, confidential file apart from the main personnel file(s). Such documentation will be kept confidential, except as necessary to administer the accommodation process. Accordingly, such documentation will be shared only with those individuals involved in the accommodation process, on an as needed basis, except as otherwise authorized by law.

- F. Supervisor

When a faculty or staff member approaches his/her supervisor with a request for accommodation, the supervisor should discuss the need for accommodation with the employee. In addition to discussing the specific accommodation requested by the employee, the supervisor should discuss other possible accommodations and assess the effectiveness each would have in allowing the employee to perform the essential functions of the position.

The faculty or staff and the supervisor should discuss the following issues:

1. The essential job functions;
2. The faculty or staff's ability to accomplish essential job functions with or without a reasonable accommodation; and,
3. If an accommodation is needed, possible types of reasonable accommodation.

The supervisor should not request information regarding:

1. How the employee became a person with a disability,
2. Disabilities for which the employee is not seeking accommodation, or
3. Information, which is unrelated to whether, the person has a disability or what accommodation is needed.

The supervisor should make sure the employee has completed the appropriate request and accommodation forms. These forms should be forwarded to the Office of the Board Liaison/Associate General Counsel. The Board Liaison/Associate General Counsel will review the request with the employee, supervisor, and Human Resources Representative. What constitutes a reason-

able accommodation will vary depending on the circumstances of each case. In evaluating alternatives for accommodation, the preferences of the employee will be considered, but the ultimate decision regarding what type of accommodation, if any, will be provided is made by the College.

- G. Office of the Board Liaison/Associate General Counsel

The Office of the Board Liaison/Associate General Counsel maintains records of accommodations made for persons with a disability. The staff is available for consultations with faculty, staff or supervisors who are making assessments of accommodation requests. In cases where a requested accommodation involves action or expenses beyond the supervisor's authority or in cases in which the faculty, staff and supervisor cannot agree on an accommodation, the College may do the following:

1. Identify additional alternatives;
2. Gather necessary medical documentation;
3. Where appropriate, gather cost or other technical impact information from resources including:
  - The department and/or employee,
  - Physical Plant Office,
  - The Human Resources Office,
  - The EEOC, Department of Justice, or
  - Rehabilitation agencies;
4. Evaluate whether any accommodation is needed and, if it is, whether an accommodation is reasonable and should be made (this evaluation may include preparing cost estimates);
5. Recommend a reasonable accommodation, if appropriate;
6. Discuss the recommendation with the department/unit;
7. Obtain appropriate funding for the accepted accommodation, if needed; and/or
8. Follow up on approved requests.

- H. Appeals

If an employee disagrees with the department's accommodation determination, the employee may appeal the determination to the Office of the Board Liaison/Associate General Counsel.

- I. Retaliation

Retaliation against an employee or applicant who requests an accommodation is prohibited. Individuals who feel that they have been retaliated against may contact the Office of the Board Liaison/Associate General Counsel.

- J. Responsibility

The Office of Human Resources facilitates placement of employees with work restrictions and/or in rehabilitation situations. Such placements may exceed the College's legal duties under the ADA, the MPDCRA and/or the Rehabilitation Act. The nature of the relevant work restrictions may be shared with employing departments so that appropriate discussions about placement can take place. The College does not guarantee such placements nor does it waive its right to limit its responsibility to accommodate a person with a disability to the duties imposed by the applicable state and federal statutes.

The College's Board Liaison/Associate General Counsel is responsible for preparing procedures to implement this policy.

Failure to follow this policy may result in disciplinary action up to and including termination or expulsion.

## STUDENT LIFE AND LEADERSHIP PROCEDURES

### POSTER REGULATIONS FOR STUDENTS AND STUDENT ORGANIZATIONS

Lansing Community College is continually sensitive to the fact that there is a need for students, staff, and offices to communicate regarding various activities, events, and services. The College is also sensitive to the right of freedom of expression, particularly as provided for in the First Amendment of the Constitution of the United States. At the same time, the College is responsible for providing reasonable procedures and

regulations to protect public and private property, and provide for the general safety and welfare of all members of the College community, and which preclude disruption of the normal functions of the College.

The following statements are designed to regulate the use of posters within the College facilities while providing students, College personnel, and College properties reasonable protection from commercial exploitation and court suits. While the courts have said that College property is considered a "public trust," these same courts have ruled that College property is not "public property" subject to unregulated use by any and all individuals. This regulation is designed to facilitate communication through the use of posters while complying with the legislated instructional mission of the College.

**DEFINITION:** A poster is any written communication designed to apply to a wall or other surface for the purpose of relating information about an event, service, idea, or activity. A poster may be in the format of, but not limited to, a sign, an announcement, or banner.

### General Poster Regulations

1. Within any and all buildings, placement of all signs and posters is restricted to approved bulletin boards.
2. Each poster must identify the sponsoring organization, department, or individual (no abbreviations). Each poster must display a telephone number or an office location where more complete information can be obtained.
3. Each poster is required to have in the lower left-hand corner, its posting date (month, day, and year) and, in the lower right-hand corner, its date (month, day, and year) to be removed. Each poster should be up for a reasonable length of time depending upon the activity.
4. Designated bulletin boards are available in each building for the posting of student and staff personal notices. All student and staff personal notices will be confined to these designated bulletin boards.
5. A poster shall not exceed 18 inches by 24 inches.
6. No poster shall be placed in such a way that it covers all or part of a previously posted approved poster whose take-down date has not expired.
7. The removal of posters at or prior to the take-down date shall be the responsibility of the sponsoring organization or individual. Unauthorized individuals shall remove no posters prior to the take-down date.
8. Lansing Community College respects the constitutional rights of freedom of expression. There are, however, responsibilities, which are attendant to the exercising of these constitutional rights. The following statement is made to provide an operational balance between the rights and responsibilities of the freedom of expression regarding the contents of posters: The content of posters shall avoid the liabilities of libel; obscenity; invasion of privacy; and incitement of disorder, violence, and disruption of the normal operation of the College.
9. Students and student organizations wanting to post posters must gain approval in the Office of Student Life and Leadership for compliance with general regulations.
10. College staff and faculty must gain approval in their departmental office or from the office of their administrative supervisor.
11. Student and College staff personal notices placed in designated bulletin boards within the College buildings do not need approval. Examples of personal notices are selling used books, sharing a ride, sharing an apartment, and selling personal articles. Profit-making commercial notices are not considered personal and will be removed.

### Student or Student Organization Appeal of Poster Denial or Removal

If a student or student organization feels that a denial of posting or removal of a poster infringes upon their First Amendment rights or is in violation of this regulation, an informal appeal may be made by the poster sponsor to the Director of Student Life and Leadership. A meeting will be held between the appealing poster sponsor or sponsors

with the Director of Student Life and Leadership to discuss the appeal. If the appeal is not resolved, a formal appeal may be presented to the Director of Campus Life. This appeal must be in writing, must indicate the reason(s) for the appeal, and must be dated and signed by the appealing party. The Director of Campus Life will gather information and respond to the appealing party within five (5) days of receipt of the appeal. If the student or student organization is not satisfied with the response of the Director of Campus Life, a second written appeal may be made to the Director of Campus Life. This written appeal must contain the reason(s) for the appeal, and a copy of the poster must be made available to the Dean of Student and Academic Support for review. The appeal to the Dean of Student and Academic Support must be dated and signed by the appealing party. The Dean of Student and Academic Support will gather information and respond to the appealing party within five (5) days of receipt of the appeal, giving the decision rendered and reason(s) therefore. The decision of the Dean of Student and Academic Support shall be final.

Failure to comply with the above regulations will lead to the denial of approval, the removal of posters, and/or disciplinary action. In order to protect the student body, individual members of the College community and the resources of the College, the College reserves the right and accepts the responsibility to deny approval or remove any poster or posters which it believes to cause significant disruption of the normal function and operation of the College.

### Poster Regulations for Off-Campus Organizations and Individuals

Lansing Community College is sensitive to the fact that there is a need for some off-campus organizations and individuals involved in non-commercial enterprises to communicate with Lansing Community College students and staff members concerning various activities, events, and services. The College is also sensitive to the right of expression, particularly as provided for in the First Amendment of the Constitution of the United States. At the same time, the College is responsible for providing reasonable procedures and regulations to protect public and private property and providing for the general safety, welfare, and positive learning environment for all members of the College community.

Therefore, the College has provided a kiosk, centrally located on the downtown campus, for the use of noncommercial groups and individuals who are not affiliated with the College. Such groups and individuals may place their posters on this kiosk without seeking prior approval from any College office, and the College disclaims any and all responsibility for items posted.

### REGULATIONS FOR USE OF STUDENT LITERATURE TABLE

Lansing Community College is continually aware of and supportive of the concepts of freedom of expression, particularly those provided by the First Amendment of the Constitution of the United States. The College also perceives that one of its functions is to provide a wide range of learning experiences and learning opportunities for the students of the College. At the same time, the College is mandated to provide orderly processes that avoid material disruption, protect public and private property, and provide for the general safety and welfare of students, faculty, and College staff.

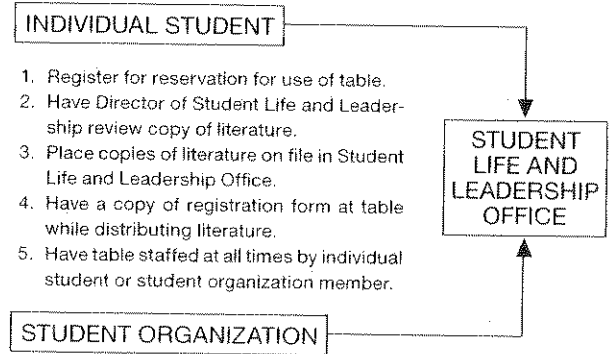
The following statements are designed to facilitate student distribution of literature within the College facilities, while providing students and College personnel and property reasonable protection from commercial exploitation and legal actions. Court rulings have determined that College buildings, while considered a public trust, are not considered public property subject to unregulated use by any and all individuals. The procedural regulations below are designed to facilitate the legislated instructional mission of the College to serve the citizens of the College community. The following procedural regulations shall be followed:

1. The distribution of literature within College buildings by students shall be limited to student literature tables made available for such distribution. Student literature tables will be made available in the following areas within the College buildings:
  - a. in the first floor lobby of the Arts and Sciences Building.



- b. In the second floor lobby of the Arts and Sciences Building.
  - c. In the first floor lobby of West Campus.
  - d. In the second floor lobby of West Campus
  - e. In the second floor lobby of the Gannon Building
  - f. In the first floor lobby of the Health and Human Service
- At least one single table will be available in each of these areas. The maximum number of tables made available in any area will be determined in a reasonable manner based on the use of the area and regulations regarding fire safety and student welfare.
2. Only registered students and College-recognized student clubs and organizations shall have access to the student literature tables. Non-students who wish to use college facilities must gain permission by following procedures established for this purpose through the Student Life and Leadership Office.
  3. The student literature tables will be available Mondays through Thursdays from 8 a.m. to 10 p.m. and Fridays 8 a.m. to 5 p.m. during the days of regularly scheduled semesters.
  4. Registered students and College-recognized clubs and organizations are required to register for the use of the student literature tables with the Student Life and Leadership Office at least 72 hours prior to the time of desired use. Registrations will be accepted on a first request-first serve basis. Individual students and recognized student clubs or organizations may register for the use of a table for three consecutive days. If there are no pending requests, a registration may be renewed at the end of a previous registration. If there are no pending requests, a recognized student club or organization may request the use of more than one table or more than one location. If during the use of multiple tables or locations, additional students or recognized student groups request the use of a table or location and additional tables or locations are not available, the multiple user or users will be required to give up the multiple use of tables and locations to provide for the new request.
  5. A copy of the completed registration form obtained from the Student Life and Leadership Office must be available at the student literature table while distribution is taking place.
  6. In order to determine accountability, a sample of the material to be distributed must be placed on file with the Student Life and Leadership Office at the time of the registration for use. In addition, a recognized student club or organization must have a copy of the material to be distributed on file with the club's or organization's advisor.
  7. The student literature table will be staffed at all times by the individual student or members of the recognized student club or organization registered for the use of the tables while the distribution of materials is taking place. The registered student or recognized club or organization will have the responsibility to ensure that the distribution process is orderly at all times and that the general area surrounding the student literature tables is not littered.
  8. Individuals shall have the option to pick literature from the tables or receive a copy from the individuals sitting at the tables. No literature shall be forced upon any individual nor shall there be any obstructions created in the path of the general flow of traffic.
  9. Individual students or recognized student clubs and organizations may collect funds for worthy causes, such as muscular dystrophy, blood drives, or College-sponsored activities. There shall be no commercial solicitations of funds or business, nor shall individual students solicit funds for personal gain.
  10. The College has the right and responsibility to halt the distribution of literature, which it believes to be libelous, obscene, an invasion of privacy, or literature designed and reasonably believed that it will have the effect to cause immediate disruption of classes, violence, or substantial disorder of the normal operations of the College.
  11. Failure to comply with the above procedural regulations may lead to the denial of the use of the student literature tables and/or may lead to disciplinary action.

**Literature Table Use Request Flow Chart**

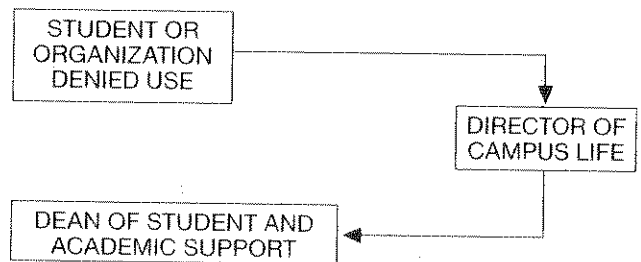


**Appeal of Denial of Use of Literature Table**

Any individual, registered student, or recognized student club or organization which has been denied access to the student literature tables or has been required to halt distribution based on procedure 10 may appeal the denial or requirement to halt distribution. The appeal shall be in writing and shall be directed to the Director of Campus Life within 10 calendar days of the denial or requirement to halt distribution. The Director of Campus Life shall make a prompt investigation of the appeal, contacting the parties involved, and shall, within 10 calendar days from the date of appeal, make a decision to reinstate the distribution rights denied or halted or to uphold the original decisions. If the decision of the Director of Campus Life is not satisfactory, the individual student or recognized student club or organization may appeal the decision to the Dean of Student and Academic Support. This second appeal must be in writing and presented to the Dean of Student and Academic Support within 10 calendar days of the decision of the Director of Student Success. The Dean of Student and Academic Support shall make a prompt investigation of the appeal, contacting parties involved, and shall within 10 calendar days from the date of the appeal, make a decision to reinstate the distribution rights or upholding the denial or required halt of distribution. The decision of the Dean of Student and Academic Support shall be final.

Where it is contemplated that a violation of the student literature distribution procedural regulation warrants the imposition of disciplinary action upon an individual student, disciplinary action shall be taken in accordance with Due Process as outlined in the *Lansing Community College Catalog*.

**Appeal of Denial Flow Chart**



## COLLEGE RESPONSIBILITIES

Lansing Community College is committed to providing an environment and resources, which promote student learning. All College employees contribute to this goal. Our commitment to learning is reflected by these responsibilities.

1. The College will maintain appropriate prerequisites so that students will enter courses with a reasonable chance of success.
2. The College will provide facilities that are safe, secure, clean, and conducive to learning.
3. The College will provide a clear and fair process for handling student complaints and concerns.
4. Faculty will be articulate and enthusiastic about their field and will establish a positive, stimulating learning atmosphere.
5. Faculty will prepare for each class; organize course concepts and present them clearly; exhibit comprehensive knowledge of the subject; teach the application of skills appropriate to course content; and make appropriate and timely use of student and instructional support services.
6. Faculty will respect students as individuals, recognizing learning styles and managing student learning accordingly.
7. Faculty will encourage classroom discussion when appropriate and represent various sides of an issue.
8. Faculty will make a standard course syllabus available to students at the beginning of the semester, provide appropriate instructional materials and assistance, and meet classes at the scheduled times.
9. Faculty will evaluate students fairly and objectively, keep students informed of their progress, and maintain records of student achievement for one year after a class has ended.
10. Faculty will encourage students to think intelligently and independently.
11. Faculty will be available to assist students outside the classroom, including during regularly scheduled and posted office hours.
12. Faculty will know curriculum/program requirements and general career opportunities in their subject area. They will be able to advise students in their program area and refer students for academic and/or career counseling.

## STUDENT RESPONSIBILITIES

In order to be successful learners, students must assume an active role in the learning process. The student responsibilities listed below emphasize behaviors that contribute directly to student academic success, and they apply to all students enrolled at the College.

1. Students will take responsibility for their own learning and for succeeding in their courses by:
  - a. Following course requirements as presented in course syllabi;
  - b. Attending all of their classes;
  - c. Preparing for classes and completing assignments on time;
  - d. Contacting their instructor regarding work missed in the case of an absence;
  - e. Cooperating with their instructor and other students to create a positive learning atmosphere;
  - f. Contributing effectively to class activities.
2. Students will be academically and intellectually honest in all classes, examinations, and learning activities. (The College, by regulation, will discipline students who cheat and/or copy the work of others; dishonesty is a serious offense and will be dealt with appropriately.)
3. Students will contribute to a positive learning environment by conducting themselves appropriately. (The College prohibits acts that interfere with the rights of others to seriously pursue

an education. For more details on the regulations of the College, see section entitled Student Rights, Responsibilities, and Conduct.)

## SPECIAL PROGRAMS AND SERVICES

Lansing Community College provides many special programs and services for students, including those which are briefly described below.

**The Center for Employment Services (CES)** provides the following services and information to current, former and prospective LCC students, alumni, as well as employers:

- **Employment Counseling** – includes providing guidance on how to acquire and utilize effective job search strategies, assisting with resume and cover letter preparation, and developing interviewing skills.
- **Job Search** – includes administering the Student Employment Program (available to LCC students who satisfy specific enrollment and GPA requirements), offering employment opportunities for both on- and off-campus positions, plus providing access to on-campus employer recruiting activities and LCC sponsored job fairs. Job postings are located on a Web-based system titled CES JobLink, which is a free service to current and former LCC students, and alumni. This system also provides an electronic resume "book" (file) that allows users to make their resume viewable to prospective employers
- **Resources and Referrals** – include comprehensive information on employment projections, labor market trends, "hot jobs," salary ranges, and company data. Access to CES JobLink, and other Web-based job posting systems, is available at [www.lcc.edu/ces](http://www.lcc.edu/ces).

The Center for Employment Services is located in Room 218 Gannon Building, telephone (517) 483-1172.

**Counseling and Advising Center** provides academic advising assistance and counseling activities which assist students with personal and interpersonal issues and concerns; referral to community human services agencies for further professional assistance; career counseling and educational planning to facilitate career decisions, choice of major, and course selection. Call (517) 483-1904 for appointments and information, or check the web site [www.lcc.edu/counseling](http://www.lcc.edu/counseling) for additional information. The Counseling and Advising Center is located in Room 204, Gannon Building.

**The Office of Extension and Community Education (ECE)** offers educational services to LCC's on and off-campus students. Our web site can be accessed at [www.lcc.edu/ece/](http://www.lcc.edu/ece/). More than 20 Learning Centers currently exist in Lansing and the six surrounding counties. Classes offered at these off-campus centers include general education core requirements, as well as personal interest courses. Students can register for classes and arrange for assessment testing and advising in select locations. ECE's three full-service facilities are the Livingston County Center in Howell, the Clinton County Center in St. Johns, and LCC East in Meridian Township. Each center provides on-site registration, academic counseling, assessment testing, computer labs, math labs and other services, plus free parking. The Capital Area Michigan Works! Office in Lansing provides on-site registration, career and academic advising, and assessment testing. Continuing Education classes are offered through the ECE office along with several youth programs including Summer College, Summer Camp and Saturday School.

**Information for Persons with Disabilities Lansing Community College** is committed to making accommodations and providing services for persons with disabilities. The College has administrative and faculty specialists who respond to visual, hearing, mobility, and alternative learning accommodation needs. They can be reached at the Office of Disability Support Services (ODSS) (517) 483-1904 (Voice), or (517) 483-1207 (Voice/TTY), or at the web site [www.lcc.edu/odss/](http://www.lcc.edu/odss/). The College adheres to the standards and guidelines set forth in the Americans With Disabilities Act.

To be eligible for services and accommodations through ODSS, students are required to provide written verification of their disability. Documentation must be signed and dated by a qualified professional who has diagnosed the disability. If necessary, the ODSS staff can help students find the appropriate professionals to diagnose their disability. Students must have documentation of a disability on file in ODSS offices before services and accommodations for classes can be provided.

Handicap-accessible parking is available and clearly identified at Lansing Community College. For more information, visit the Office of Parking and ID Services at [www.lcc.edu/parking](http://www.lcc.edu/parking), or telephone the office at (517) 483-1798.

**The Center for International and Intercultural Education** coordinates overseas study through such programs as the Nihon Taiken (Experience Japan), a network of sister college exchange relationships and short-term study abroad programs. The Center also offers English and American culture courses at the English Language and Culture Center, immigration and academic advising for international students, and coordinates LCC's campus internationalization efforts. Visit our web site at [www.lcc.edu/intprog/](http://www.lcc.edu/intprog/).

**The Lansing Community College Foundation** ([www.lcc.edu/fdn/](http://www.lcc.edu/fdn/)) supports students, faculty, programs, and facilities through private sector fund-raising in the community. Scholarship awards to students and allocations to LCC programs are coordinated by the Foundation Board of Directors in support of the mission and goals of the College. For additional information, visit the LCC Foundation in the Rogers-Carrier House, 528 N. Capitol, Lansing; call (517) 483-1985; visit our web site at [www.lcc.edu/fdn/](http://www.lcc.edu/fdn/); or e-mail us at [exec\\_foundation@lcc.edu](mailto:exec_foundation@lcc.edu).

**The Library** provides face-to-face, e-mail and live chat information and research assistance, library resources, web and telephone renewals of library materials, and delivery of library materials to LCC off-campus sites. The library also has 522 study seats, including 60 Internet access computer stations, 33 multi-media rooms and 17 study rooms with data capability... The library website ([www.lcc.edu/library](http://www.lcc.edu/library)) provides 24/7 access on and off campus to the library catalog, electronic and full-text reference books, full-text journals, credible websites, resource guides and LINKS, a self-instructional tutorial designed to teach basic research skills.

**The Office of Equal Opportunity and Diversity Programs** educates the campus community about equal opportunity, affirmative action, and multiculturalism. Office staff resolves complaints of discrimination and other concerns related to employment and terms and conditions of employment or admission. Our web site is located at <http://www.lcc.edu/eo/>.

**Student Orientation** is an informational program designed for new and returning students. Find out about college academic programs and academic support services including admissions, financial assistance, registration, parking and student IDs. Explore the campus with an LCC tour guide to see our modern, high-tech facilities and classrooms. Make a connection with faculty, counselors and advisors. Visit our cafeterias and student lounges where you can enjoy lunch and take a break with other students. If you can't make it to campus, visit us on-line at: [www.lcc.edu/orientation](http://www.lcc.edu/orientation), or for more information call, (517) 483-1904.

**The Student Life and Leadership Office** exists to enhance the overall educational experiences of students through the development of, exposure to, and participation in social, intellectual, cultural, recreational, campus and community service, leadership development and campus governance programs. Student Life and Leadership enhances student leadership, development, and success through involvement in and exposure to diverse experiences and opportunities. These experiences include Student Senate, a comprehensive student leadership development experience consisting of the Student Advisory Committee to the President, Student Organization Council, and the Student Leadership Academy; student clubs and organizations; student activities such as Caribbean Festival and Spring Fling; campus programming of guest artists and student workshops, lectures and forums; and opportunities to work on the staff of *The Lookout*, Lansing Community College's student newspaper. The Student Life and Leadership Office also provides a listing of volunteer opportunities; the Student Commons/Cyber Cafe; and a housing resource listing service. Visit our web site at [www.lcc.edu/studentlife/](http://www.lcc.edu/studentlife/).

**Tutoring Services**, offered through the Learning Assistance Department, provides free tutoring to students enrolled in LCC courses. Professional and peer tutors help students develop course competencies and study strategies. Individual appointments, study groups, Supplemental Instruction, and walk-in/drop-in tutoring sessions are available on a first-come-first-served basis. Applications for tutoring are available at the Tutoring Services office, Arts and Sciences Building, Room 103, on the web at <http://www.lcc.edu/tutorial>, or by calling (517) 483-1206.

**The Women's Resource Center/Returning Adult Program** provides services and programs in support of women and men at Lansing Community College, including financial assistance with tuition, textbooks, transportation, and child care costs, academic advising, reentry support, and referral services. For additional information, visit the Center in the Gannon Building, Room 204, or call (517) 483-1199, or visit our web site at [www.lcc.edu/wrc/](http://www.lcc.edu/wrc/).

# Performance improvement solutions that work.



## Business & Community Institute/M-TEC at Lansing Community College

The constantly changing nature of the global marketplace requires high-performing businesses, industries and organizations to master a variety of skills, including the art of human resource management and strategic planning.

The Business & Community Institute/M-TEC at LCC provides a broad spectrum of consulting services and performance improvement solutions that will strengthen your company's organizational performance. Our consultants, master trainers, superb LCC faculty members, and our vast network of national and international performance partners are ready to work with you to fine-tune the core operational competencies of your organization.

BCI/M-TEC performance improvement solutions include:

- \* Quality Management Systems
- \* Supervisory and Leadership Development
- \* Customer Service
- \* Computer Software Training
- \* Capital Quality Initiative
- \* Team Dynamics, Teamwork, and Team Leadership
- \* Key-Person Training/Executive Coaching
- \* Lean Thinking/Lean Office
- \* Consulting
- \* Training Needs Assessment
- \* Development of Job Aids
- \* Quality Systems Gap Analysis
- \* Leadership Assessment Center

Whatever your need, we'll connect you to a solution that works for your operation. Let us put our expertise to work for you.

Visit us at LCC West Campus in Delta Township!

The Business & Community Institute/M-TEC  
5708 Cornerstone Drive  
Lansing, Michigan  
[www.lcc.edu/bci](http://www.lcc.edu/bci)  
(517) 483-1857



In keeping with its tradition of quality service and excellence, BCI/M-TEC is certified to the ISO 9001-2000 standard. Being certified to the ISO 9001-2000 standard signifies that BCI/M-TEC has met international standards for consistency of quality throughout the organization, and has a system in place for continuously improving customer satisfaction in quality products and services.

# The English Language & Culture Center of International Programs

Intensive English language  
instruction for international  
students and professionals

## GENERAL INFORMATION

The English Language and Culture Center (ELCC) provides intensive English language instruction primarily to international students who need to improve their English skills before beginning college-level academic course work. The Center also provides customized English language and American culture instruction to groups that need specialized programs for professional or other activities. The ELCC is located in the International Programs Office, and its courses are non-credit. The ELCC issues I-20 forms to international students.

## COURSES

The ELCC offers the following courses at 6 different levels:

- Courses: Grammar, Speaking/Listening, Reading and Writing
- Levels: High Beginning; Intermediate I and II; and Advanced I, II, and III.
- Instructional hours: 6 hours/week
- Session length: 8 weeks

TOEFL preparation, Pronunciation Improvement, and Vocabulary Building courses (3 hours/week) are also offered as needed.

## TUITION & FEES

Contact the ELCC office at (517) 483-1006.

## APPLICATION & INFORMATION

To apply or obtain more information, call the ELCC office at (517) 483-1006 or call LCC's toll-free line at 1-800-644-4522 and ask to be connected to the ELCC. Or check our web site at: [www.lcc.edu/intlprog/elcc/](http://www.lcc.edu/intlprog/elcc/).

## COURSE DESCRIPTIONS

NCEL 111	High Beginning Speaking/ Listening	non-credit
NCEL 112, 113	Intermediate Speaking/ Listening I and II	non-credit
NCEL 114, 115, 116	Advanced Speaking/ Listening I, II, and III	non-credit

**Prerequisite:** Placement test or pass the immediately preceding course with 71% (2.0) minimum

Six-session sequence in English speaking and listening. Designed to provide American English Language instruction through listening and speaking exercises for non-native students who wish to pursue college level course work. In order to develop speaking and listening skills, students will work on pronunciation and conversation skills through class discussions and presentations on various topics, as well as work on note-taking skills.

NCEL 121	High Beginning Reading	non-credit
NCEL 122, 123	Intermediate Reading I and II	non-credit
NCEL 124, 125, 126	Advanced Reading I, II, and III	non-credit

**Prerequisite:** Placement test or pass the immediately preceding course with 71% (2.0) minimum

Six-session sequence in reading English. Designed to develop increased reading proficiency for non-native students who wish to pursue college level courses. Students will read various materials that they may encounter during their academic studies. Emphasizes vocabulary building, gaining reading speed, summarizing main ideas, note-taking, and various reading strategies.

NCEL 131	High Beginning Writing	non-credit
NCEL 132, 133	Intermediate Writing I and II	non-credit
NCEL 134, 135, 136	Advanced Writing I, II, and III	non-credit

**Prerequisite:** Placement test or pass the immediately preceding course with 71% (2.0) minimum

Six-session sequence in English writing. Designed to help non-native students improve their writing skills in preparation for college courses. Emphasizes process-oriented writing, including brainstorming, outlining, drafting, and revising. Students will work on writing well-developed and cohesive paragraphs and essays, as well as learning various rhetorical styles.

NCEL 141	High Beginning Grammar	non-credit
NCEL 142, 143	Intermediate Grammar I and II	non-credit
NCEL 144, 145, 146	Advanced Grammar I, II, and III	non-credit

**Prerequisite:** Placement test or pass the immediately preceding course with 71% (2.0) minimum

Six-session sequence in standard American English grammar. Designed to help students increase their proficiency in writing, reading, and speaking and listening. Emphasizes grammatical structures in various contexts, including verb structures, articles, logical connectors, comparatives and conditionals. Attention will be given to grammatical forms and their appropriate use.

NCEL 151	TOEFL Preparation	non-credit
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**Prerequisite:** Intermediate Grammar II

Two-session sequence in TOEFL preparation. Designed to prepare students for the computer-based TOEFL test. Will help students become familiar with particular computer-based TOEFL tests, including the grammar, vocabulary, and listening comprehension materials frequently encountered in these tests. Students also become familiar with the TOEFL writing (TWE) format.

**NCEL 191**      **Pronunciation Lab**      non-credit

**Prerequisite:** None

Designed for students at any level to improve their American English pronunciation by extensive practice on vowels, consonants, stress, and intonation. The course also covers reductions, linking, and ellipsis, which are typical trouble areas for nonnative speakers of English. The lab meets three hours a week.

**NCEL 199**      **Vocabulary Improvement**      non-credit

**Prerequisite:** None

Designed for students at all levels to increase their vocabulary. The course focuses on the acquisition of vocabulary appropriate to various disciplines within the college and everyday living in the U.S.

## CAREER CLUSTERS

The Michigan Career Preparation System is a structure designed to give all students a jump-start on their futures by providing them with opportunities to explore a variety of careers throughout their K-12 education and beyond.

A component of the Career Preparation System is **Career Clusters**, broad categories of career options that share similar characteristics and whose employment requirements call for many common interests, strengths, and competencies. Career Clusters identify classes that can be taken in high school that will better prepare a student for college success. There are sixteen National Career Clusters. They are:

- Agriculture, and Natural Resources
- Construction
- Arts, A/V Technology & Communications
- Business and Administrative Services
- Education and Training Services
- Financial Services
- Public Administration and Government Services
- Health Sciences
- Hospitality & Tourism
- Human Services
- Information Technology
- Legal and Protective Services
- Manufacturing
- Wholesale/Retail Sales and Services
- Scientific Research, Engineering and Technical Services
- Transportation, Distribution & Logistics

Within each Career Cluster there are Career Pathways. Pathways are grouped by the knowledge and skills required of occupations in the career fields associated with the pathways. High School courses and areas of study are aligned with these clusters and pathways, and are linked to certificate and associate degree programs offered at Lansing Community College. Students can choose between certificate and associate degree programs designed to provide skills for immediate employment or job advancement. Each Career Cluster also offers several transfer programs for students who plan to pursue advanced degrees at four-year colleges and universities. Students are encouraged to explore Career Cluster options at [www.lcc.edu/careerclusters/](http://www.lcc.edu/careerclusters/). For additional information, contact the Office of Career Prep and K-12 Articulation, (517) 483-9909.

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# Transfer Information

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# TRANSFER INFORMATION

Students planning to transfer to a four-year institution should be aware that universities and colleges differ widely in the courses they accept for transfer. In order to achieve maximum transferability of courses, students should consult an academic advisor or counselor with the Counseling and Advising Center, Room 204, Gannon Building.

In addition, students intending to transfer should follow the transfer guide designed specifically for the major and the institution in which they intend to enroll. Students should understand that transfer guides are not LCC degree guides. Students intending to earn an LCC degree prior to transferring should consult an academic advisor or counselor.

Transfer guides are available for many, but not all, possible transfer programs. Students are encouraged to contact the Admissions Office at the transfer institution of interest if there is not a transfer guide available for a preferred major or institution. It is the student's responsibility when transferring from LCC to be aware of the transfer institution's policies and program requirements.

Transfer guides and additional transfer information may be obtained on the Internet at [www.lcc.edu/transfer](http://www.lcc.edu/transfer), or by contacting: LCC Counseling and Advising Center, Room 204 Gannon Building.; (517) 483-1904; fax (517) 483-1970; e-mail [jlock@lcc.edu](mailto:jlock@lcc.edu).

When requesting information, please indicate the area(s) of study and transfer college/university choice(s).

Transfer guides are available for the following areas of study (majors):

Accountancy	Food Industry Management	Criminal Justice	Family Life Education
Accounting	Food Marketing	Criminology	Family Studies
Corporate	Health Care Management	Dental Hygiene	Family Studies - Child Development Emphasis
Information Management	Health Services Administration	Dentistry, Pre-Professional	Finance
Advertising	Hospitality Services Administration	Dietetics	Fine, Performing & Communication Arts
Agriscience	Human Resources Management	E-Business	Fire Science/Management
Animal Science	Information Systems Management	Earth Science	Fisheries and Wildlife Management
Anthropology	Integrated Supply Management	Economics	Food Service Administration
Apparel Design	International Logistics Management	Education	Forensic Biology
Applied Business	Marketing Management	Art & Design	Forestry
Applied Ecology & Environmental Science	Product Operation & Management	Elementary	Geography
Applied Geo-Physics	Public Administration	Secondary	Geology
Applied Management	Retail Management	Allied Health	Graphic Design
Applied Mathematics	Retail Supply Chain Management	Auto Body Repair	Health Care Administration Services
Applied Physics	Specializations	Automotive Technology	Systems Administration
Applied Science	Statistics	Business	Health Fitness Prevent & Rehab Program
Architectural Imaging	Cell & Molecular Biology	CADD/Drafting & Design	Health Professionals
Architecture	Chemistry	Construction (Residential Building)	Health Programs, Pre-Professional
Art	Child Development	Electrical Technology	Health Service Administration
Art, Visual-Commercial Design	Chiropractic, Pre-Professional	Geographic Resource & Environmental Technology	History
Athletic Training	Clinical Laboratory Science	Heating & Air Conditioning	Horticulture
Automotive and Heavy Equipment Management	Communication	History	Hospitality Business Tourism Management
Aviation Flight Science - Pilot	Digital Interpersonal and Public Professional Scientific and Technical Studies	Industrial	Human Resources Management
Aviation Maintenance Technology	Communication Arts	Industrial Technology	Human Services
Behavioral Science	Community Development	Machine Maintenance	Industrial Management Technology
Biochemistry	Community Services	Machine Toolmaker	Information Computer Security Systems Technology
Bioinformatics	Computer Information Management	Music	Insurance & Risk Management
Biological Science	Computer Information Systems	Physical Education	Interior Architecture
Biology	Computer Science	Social Studies	Interior Design
Biometric Security	Computer Science/Mathematics	Technology	International Business Relations
Biopsychology	Construction Management	Welding Technology	Journalism/Mass Communication
Biotechnology	Construction Management	Special	Kinesiology
Broadcasting	Exercise and Sport Science	Engineering	Landscape Architecture
Building Construction Management	Family Community Services	Administration	Law, Pre-Professional
Business Administration		Aeronautical	Legal Administration
Banking		Biomedical	Liberal Arts Management
Business Studies		Chemical	Business Administration
Economics		Civil	E-Business
Finance		Computer	Facility
		Construction	Financial
		Electrical	Health and Fitness
		Environmental	Health Care
		Geological	Information Science/Technology
		Industrial	International Business
		Management	Organizational Development
		Material Science	Marketing
		Mechanical	Marketing/Management
		Paper	Mathematics
		Survey	Media Production & New Technology
		Engineering Technology	Medical Imaging
		Electrical/Electronics	Medical, Pre-Professional
		Heating, Ventilation, Air Condition and Refrigeration	Medical/Dental Science, Pre-
		Manufacturing	
		Mechanical	
		Product Design	
		Welding	
		English	
		Entertainment/Sports Promotion	
		Environmental	
		Biology/Zoology	
		Chemistry	
		Conservation	
		Economics & Policy Science	
		Studies & Applications	
		Exercise and Sport Science	
		Family Community Services	



Professional	Management
Medical Record Administration	Respiratory Care
Medical Technology	Respiratory Therapy
Merchandising	Science
Modern Languages	Social Work
Multidisciplinary Studies	Sociology
Music	Speech Pathology and Audiology
Natural Resources Management	Sports Medicine
Network Computing	Sports Science
Network Security	Statistics
Nursing	Surveying
Occupational Safety & Health	Teacher Education Program
Occupational Therapy	Technology & Information
Occupational Therapy Assistant	Management
Outdoor Recreation, Leadership, & Management	Computer Programmer/ Analyst
Packaging	E-Business
Paralegal Studies	Microcomputer Data Specialist
Pharmacy, Pre-Professional	Telecommunication
Philosophy	Broadcast Journalism
Photography	Information Studies & Media
Physical Education	TV & Digital Media Production
Physical Therapy	Textile and Apparel Studies
Physical Therapy Assistant	Design & Development
Physician Assistant/Studies	Merchandising
Physics	Theatre
Planning	Therapeutic Recreation
Political Science	Veterinary Medicine, Pre- Professional
Polymers & Coatings Technology	Water Resource Management
Printing Management/Marketing	Writing
Project Management	Public Colleges/universities for
Psychology	which transfer guides are avail- able are as follows (not all majors
Public Administration	listed above are available at all
Affairs	transfer institutions):
Non-Profit Administration	Adrian College
Public Relations	Alma College
Public Safety & Security Management	
Quality Management	
Recreational Leadership &	
Bay de Noc Community College	
Brooks Institute	
Calvin College	Morehouse College
Capella University	Morgan State University
Central Michigan University	Mott Community College
Clark Atlanta University	National University of Health Sciences
Cleary University	Northern Michigan University
College for Creative Studies	Northwood University
Concordia University	Oakland University
Davenport University	Olivet College
Eastern Michigan University	Palmer College of Chiropractic
Ferris State University	Saginaw Valley State University
Franklin University	Savannah College of Art & Design
Grand Rapids Community College	Siena Heights University
Grand Valley State University	Spelman University
Great Lakes Christian College	Spring Arbor University
Johnson and Wales University	Thomas M. Cooley Law School
Kaplan University	Tri-State University
Kellogg Community College	University of Baltimore
Kettering University	University of Detroit Mercy
Lake Superior State University	University of Michigan/Ann Arbor
Lawrence Technological University	University of Michigan/Dearborn
Madonna University	University of Michigan/Flint
Michigan State University	University of Phoenix
Michigan Technological University	Upper Iowa University
	Walsh College
	Wayne State University
	Western Michigan University

**MACRAO TRANSFER AGREEMENT**

In 1973 the Michigan Association of Collegiate Registrars and Admissions Officers proposed the MACRAO Transfer Agreement. The MACRAO Transfer Agreement was created to simplify the transfer of students from two-year to four-year institutions. The agreement stipulates that 30 semester credit hours of 100-level and above, compatible, general course work will be granted to smooth transferability to participating universities. These credits will be applied toward a student's general education requirements. Completion of requirements for the MACRAO Transfer Agreement does not necessarily mean that a student has completed the requirements for a specific Lansing Community College associate degree.

The basic two-year requirements are:

English Composition	6 semester hours minimum
Science and Mathematics	8 semester hours minimum
Social Science	8 semester hours minimum
Humanities	8 semester hours minimum

Effective Fall 2007, the following establishes the approved list of LCC courses under the four major distribution requirements for the MACRAO Transfer Agreement. A course can be used to satisfy only one category even though it may appear in more than one category. Only courses in which at least a 2.0 is received may be applied to this agreement.

A course that is transferred to LCC from another college or university and is not equivalent to a specific LCC course may be used to satisfy MACRAO if it is a general education course, fits into one of the MACRAO areas, and meets LCC's MACRAO Guidelines. To have such a course considered for MACRAO, a student must obtain documentation about the course from the school where it was completed, and submit the documentation to the Enrollment Services Office. Requests may also be made to Enrollment Services to have credits earned through AP, CLEP, and DSST tests which did not receive specific LCC course equivalency evaluated for MACRAO.

**I. English Composition** (minimum of 6 semester credit hours) Any one from each group:

- WRIT 121 or WRIT 131
- WRIT 122 or ENGL 122 or WRIT 132 or ENGL 132

A student with waiver of WRIT 121 indicated on the transcript must elect a second course from the 200-level offerings in WRIT or ENGL. Waiver of WRIT 121 should be printed on the student's transcript.

NOTE: Areas below contain 2, 3, 4 and 5 credit semester courses. More than two courses may be needed to reach the 8 semester credit hour minimum. Semester credits are listed in the "Course Descriptions" section of the catalog, immediately following the course title, and in the Course Schedule book.

**II. Science and Mathematics** (minimum of 8 semester credit hours) Choose courses in at least two (2) subject areas, with a minimum of one laboratory science course. Underlined courses indicate a laboratory course.

**Biological Science:** BIOL 120, 121, 127, 128, 145, 201, 202, 203 and 204, 210, 229, 260, 265; ISCI 122; PFWH 123

**Mathematics and Statistics:** MATH 118, 119, 121, 122, 126, 130, 141, 151, 152, 161, 162, 201, 202; STAT 170, 215

(Note: MSU does not accept Math/Stat courses for the science requirement.)

**Physical Science:** ASTR 201; CHEM 120, 125, 135, 151 and 161; GEOG 121; GEOL 121, 221, 222, 230; ISCI 121, 131; PHYS 120, 221, 251

**III. Social Science** (minimum of 8 semester credit hours)

Choose courses in at least two (2) subject areas.

**Economics:** ECON 120, 201, 202, 213, 260

**Geography:** GEOG 120, 200, 202

**Human Services:** CHDV 101; CJUS 101, 102, 106, 255; GERO 100; SOWK 101

**Political Science:** POLS 120, 121, 201, 260, 270

**Psychology:** EDUC 204; PSYC 200, 202, 203, 205, 221, 250

**Sociology/Anthropology:** ANTH 270; SOCL 120, 254, 255, 260;

**IV. Humanities** (minimum of 8 semester credit hours) Take one of the following combinations:

- HIST 211 and 212 or 214; HUMS 211 and 212; HUMS 213 and 214; ENGL 211 and 212; PHIL 211 and 212; RELG 211 and 212

**OR**

- Take courses in at least two (2) of the following areas:

**Art History:** HUMS 120, 211, 212

**Foreign Language:** FREN 121, 122, 201, 202; GRMN 121, 122, 201, 202; JAPN 121, 122, 201; SPAN 121, 122, 201, 202. (Note: MSU does not accept Foreign Language courses for the Humanities requirement.)

**History:** ECON 213; HIST 150, 211, 212, 214, 220, 230, 240, 260

**Humanities:** HIST 240, 250; HUMS 140, 160, 213, 214, 215, 220

**Literature:** ENGL 201, 202, 203, 208, 211, 212, 255, 256, 260, 266, 267, 270, 290

**Performing Arts:** MUSC 199, 240, 241; THEA 110, 210

**Philosophy:** PHIL 151, 152, 153, 211, 212

**Religion:** RELG 211, 212, 241, 242, 250

**LCC Core-MACRAO Crosswalk – The following LCC Core courses also satisfy MACRAO requirements.**

English Composition – WRIT 121, 122, 131, 132; ENGL 122, 132  
Science and Mathematics – MATH 118, 119, 121, 122, 126, 130,

141, 151, 152, 161, 162, 201, 202; STAT 170, 215; ASTR 201,  
BIOL 120, 127, 145, 202; CHEM 135, 151/161; GEOL 230; ISCI  
121, 131; PHYS 120, 221, 251

Social Science – ECON 120, 260; GEOG 200; POLS 260, 270;  
SOCL 120, 260

Humanities – FREN 121; GRMN 121; JAPN 121; THEA 110; ENGL  
211, 212; HUMS 160, 211, 212, 213, 214; MUSC 240, 241; PHIL  
211, 212; SPAN 121

**NOTES**

1. Students are advised to also review specific transfer curricular guides. Some transfer institutions, for example, may require both a biological and physical science to satisfy the requirements for the degree.
2. Students seeking an LCC associate degree must fulfil specific graduation requirements including the LCC General Education Core requirements. See the General Information section of this catalog for additional details.

For further information and advising, contact an LCC academic advisor or counselor located in the Counseling and Advising Center, Room 204, Gannon Building, (517) 483-1904.

The following four-year institutions are signatory to the MACRAO

Transfer Agreement:	*Madonna University
*Adrian College	Marygrove College
Albion College	*Michigan State University
Baker College	*Michigan Technological
*Caivin College	University
Central Michigan University	*Northern Michigan University
Cleary University	Northwood University
*Concordia University	*Oakland University
Davenport University	Olivet College
*Eastern Michigan University	Rochester College
*Ferris State University	*Saginaw Valley State University
*Finlandia University	Saint Mary's College
*Grand Valley State University	*Siena Heights University
Lake Superior State University	Spring Arbor University
*Lawrence Technological University	
Western Michigan University	

\*Some limitations may apply. Check with individual college/university.

# Degree and Certificate Programs



## ASSOCIATE IN ARTS ASSOCIATE IN SCIENCE DEGREES

The programs listed on this page are primarily transfer degrees. Students completing these degrees will also satisfy the MACRAO Transfer Agreement between two-year and four-year institutions in Michigan. These programs are designed for students who intend to transfer to a four-year college or university to pursue a baccalaureate degree. General education and subject area requirements vary from one college or university to another. Prior to beginning any curriculum, students should contact the Counseling and Advising Center, Room 204, Gannon Building, telephone number (517) 483-1904, to consult with an academic advisor or counselor and obtain an appropriate transfer guide. Students should also contact the school to which they will transfer for specific transfer institution requirements. (See *Transfer Opportunities* for a list of institutions for which transfer guides are available.) To view the curriculum requirements for each 2007-2008 degree/certificate, visit [www.lcc.edu/catalog/degree\\_certificateprograms/2007-2008/aaas](http://www.lcc.edu/catalog/degree_certificateprograms/2007-2008/aaas)

Accounting, AA (0254)  
African American History, AA (0137)  
American Studies, AA (0142)  
Art History, AA (0746)  
Biology, AS (0221)  
Business, AA (0232)  
Chemistry, AS (0117)  
Child Development and Early Education, AA (1253)  
Computer Science, AS (0169)  
Criminal Justice, AA (0146)  
Economics, AA (0230)  
Elementary Education, AA (0747)  
Engineering, AS (0112)  
Fine Arts, AA (0748)  
Foreign Language, AA (0132)  
Geography, AA (0749)  
History, AA (0197)  
Humanities, AA (0119)  
International Studies, AA (0252)  
Kinesiology/Exercise Science, AS (0970)  
Liberal Arts, AA (0251)  
Literature, AA (0124)  
Mathematics/Physics, AS (0200)  
Medical Pre-Professional, AS (0754)  
Philosophy, AA (0159)  
Political Science, AA (0750)  
Psychology, AA (0215)  
Religion, AA (0751)  
Secondary Education, AA (0752)  
Social Science, AA (0121)  
Sociology, AA (0753)  
Speech Communication, AA (0136)  
Writing, AA (1204)

### KEY

AA Associate in Arts  
AS Associate in Science

## GENERAL ASSOCIATE DEGREE

Curriculum Code: 0863

This degree is a customized program of study that should be approved by an academic advisor or counselor. A minimum of 60 credits is required and includes the LCC General Education Core requirements. Students must also complete **EITHER** a minimum of 12 related credits in an area of study of their own choosing **OR** they must complete the credits listed on a transfer guide. (See Transfer Information of the catalog for a list of institutions for which transfer guides are available.) Students planning to transfer should see an academic advisor or counselor before enrolling in any course. To view the curriculum requirements for the General Associate Degree, visit [www.lcc.edu/catalog/degree\\_certificateprograms/2007-2008/general.html](http://www.lcc.edu/catalog/degree_certificateprograms/2007-2008/general.html)

# APPLIED DEGREES AND CERTIFICATES

The programs listed on this page lead to an associate degree in applied arts, an associate degree in applied science, an associate degree in business, or a certificate. These degree and certificate programs are designed primarily for students who seek education and the acquisition of skills needed to enter the job market or to advance their current careers. Not all courses in these programs transfer to all colleges. Students planning to transfer should see an academic advisor or counselor before enrolling in any course. To view the curriculum requirements for each 2007-2008 degree/certificate, visit [www.lcc.edu/catalog/degree\\_certificateprograms/2007-2008/applied/](http://www.lcc.edu/catalog/degree_certificateprograms/2007-2008/applied/)

## ACCOUNTING

Accounting, AB (0162)  
Accounting, CA (0714)  
Accounting, CPA Exam Preparation, AB (0255)  
Bookkeeping, CC (1292)

## AGRICULTURE

Precision Agriculture, AAS (0896)  
Precision Agriculture, CA (0852)

## ARCHITECTURE

Architectural Tech, Residential Design, AAS (0758)  
Architectural Tech, Residential Design, CA (0831)  
Architectural Technology, AAS (0233)

## ART, DESIGN, AND MULTIMEDIA

Computer Graphics Animation, AAA (0284)  
Computer Graphics, Multimedia, AAA (0194)  
Computer Graphics, Multimedia, CA (0857)  
Computer Graphics, Web Design, AAA (0914)  
Digital Media, CA (1207)  
Figure Studies, CA (0850)  
Fine Art Foundation, AAA (0271)  
Graphic Design, AAA (0219)  
Graphic Design, CA (1020)  
Humorous Illustration, CC (0838)

## AUTOMOTIVE

Alternative Fuels, CC (0855)  
Automotive AC/Electrical Accessories, CC (0846)  
Auto Collision Repair, AAS (0188)  
Auto Collision Repair, CA (0166)  
Automotive Drive Lines, CC (0856)  
Automotive Steering/Suspension/Brakes, CC (0851)  
Automotive Technology, AAS (0238)  
Automotive Technology, CA (0140)  
Engine Performance/Diagnosis, CC (0848)  
Motorsports Race Engine Machinist, CC (1351)  
Motorsports Race Engine Specialist, CA (1360)

## AVIATION

Airframe Maintenance Technology, AAS (0757)  
Airframe Maintenance Technology, CA (1036)  
Basic Aviation Technology, CC (1037)  
Aviation Flight Technology, AAS (0259)  
Avionics Flightline Maintenance, AAS (1046)  
Avionics Flightline Technician, CC (1291)  
Instrument Rated Private Pilot License, CC (1296)  
Powerplant Maintenance Technology, AAS (0745)  
Powerplant Maintenance Technology, CA (1035)  
Private Pilot License, CC (1298)

## BUSINESS

Business Administration, AB (0243)  
E-Business, AB (0839)  
E-Business, CA (0845)  
Entrepreneurial Studies, CC (0903)  
International Business, AB (0240)

## CHILD DEVELOPMENT AND EARLY EDUCATION

Child Development and Early Education, CA (0133)  
Child Development and Early Education (see AA/AS Degrees)  
CDA Credential Training, CC (0921)

## CIVIL TECHNOLOGY

Civil Technology, AAS (0178)  
Surveying and Materials Technology, CC (1011)

## COMPUTERS

Computer Auditor, AB (0253)  
Computer Database Specialist, AB (0922)  
Computer Database Specialist, CA (0917)  
Computer Network & Information Security, AB (0791)  
Computer Networking and Communication, CC (0842)  
Computer Programmer/Analyst, AB (0113)  
Computer Programmer/Analyst, CC (0969)  
Computer Repair and Support Technician, AAS (0743)  
Computer Repair Technician, CA (0168)  
Computer Support Specialist, AB (0713)  
Information Technology, CC (0844)  
Information Technology Job Readiness, CC (1038)  
Internet for Business, CA (0794)  
Internet for Business, CC (0843)  
Microsoft Office Specialist, CC (0841)  
PC User Support, CC (0766)

## CONSTRUCTION

Residential Building, AAS (0167)  
Residential Building, CA (0135)

## CRIMINAL JUSTICE

Correctional Officer, CC (0840)  
Criminal Justice, Corrections, AAS (1209)  
Criminal Justice, Law Enforcement, AAS (1210)  
Juvenile Justice, CA (0916)  
Mid-Michigan Police Academy, CA (1288)

## EDUCATION

Teacher Paraprofessional, AAS (1039)  
Teacher Paraprofessional, CC (0829)

## ELECTRICAL

Electrical Technology, Construction, CA (0759)  
Electrical Tech. Control/Maintenance, CA (0760)  
Electrical Technology, AAS (0134)  
Electrical Wiring, CC (0964)  
Machine Control, CC (0966)

## ENERGY

Alternative Energy Technology, AAS (1229)  
Customer Energy Specialist, AAS (1022)  
Customer Energy Specialist, CA (0893)  
Energy Management Technology, AAS (1293)  
Stationary Energy Technology, CA (1228)

## FASHION TECHNOLOGY

Apparel Production, CC (1290)  
Fashion Technology, AAS (1252)  
Fashion Technology, CA (1205)  
Fashion Technology, CC (1056)  
Wedding Consultant, CC (1300)

## FINANCIAL INSTITUTIONS

Financial Institutions, AB (0103)  
Financial Institutions CC (0151)

## FIRE SCIENCE

Fire Science Academy, CC (0709)  
Fire Science/Basic EMT, AAS (1057)  
Fire Science Technology, AAS (0123)

## GEOGRAPHIC INFORMATION SYSTEMS

Geographic Infor Systems/Geospatial Tech, AAS (0224)  
Geographic Information Systems, CA (0834)

## HEALTH CAREERS

Acute Care Nursing Assistant/Orderly, CC (1019)  
Basic Emergency Medical Services, CA (0269)  
Basic Emergency Medical Technician, CC (1018)  
Dental Hygiene, AAS (0279)-119  
Diagnostic Medical Sonography, AAS (0790)  
Diagnostic Medical Sonography, CA (0263)  
Emergency Medical Services, AAS (0276)  
Health Unit Clerk/Coordinator, CC (1014)  
Healthcare Central Service Technician, CC (1017)  
Long-Term Care Nurse Aide, CC (1025)  
Medical Insurance Billing and Coding, CA (1297)  
Medical Insurance Billing and Coding, CC (1013)  
Nurse Aide: Acute & Long-Term Care, CC (1027)  
Nursing, PN Option, CA (0235)  
Nursing, RN Option, AAS (0222)-129  
Paramedic, CA (0272)  
Pharmacy Technician, CC (1024)  
Phlebotomy Technician, CC (1010)  
Radiologic Technology, AAS (0196)  
Surgical Technology, AAS (1021)  
Therapeutic Massage, CA (1255)

**HEATING, AIR CONDITIONING, AND REFRIGERATION**

Heat and Air Conditioning/Building Maint, AAS (0836)  
 Heat and Air Conditioning/Building Maint, CA (0832)  
 HVAC/R-Energy Mgmt Engineering Tech, AAS (1257)

**HEAVY EQUIPMENT**

Heavy Equipment Operator, CC (1202)  
 Heavy Equipment Repair Technician, AAS (1055)  
 Heavy Equipment Repair Technician, CA (1041)

**HOSPITALITY**

Food Service Management, CC (1294)  
 Hotel-Lodging/Food Management, AB (0711)  
 Hotel/Lodging Management, CC (1295)

**HUMAN SERVICES CAREERS**

Aging Studies, CC (1200)  
 Human Services, AAS (0915)  
 Human Services, CA (1201)  
 Human Services, CC (1199)

**INTERIOR DESIGN**

Interior Design Merchandising, CC (0927)  
 Interior Design Technology, AAS (0267)  
 Kitchen and Bath Design, AAS (1208)  
 Kitchen and Bath Technology, CC (1254)  
 Kitchen/Bath Design Specialist, CA (0926)

**LANDSCAPE CAREERS**

Horticulture, AAS (0189)  
 Landscape Architecture, AAS (0203)

**LEGAL ASSISTANT/PARALEGAL**

Paralegal, AB (0101)  
 Paralegal Post-Bachelor, CA (0744)

**MANAGEMENT**

Advanced Management, CA (0280)  
 Human Resource Management, AB (0712)  
 Labor Relations, CC (0256)  
 Management, AB (0245)  
 Management, CA (0249)  
 Managing Forward, CC (1053)  
 Taking Initiative for Mgmt Effectiveness, CC (1299)

**MANUFACTURING ENGINEERING TECHNOLOGY**

Industrial Manufacturing Engineering Tec, AAS (0110)  
 Industrial Plant and Controls Layout, CA (1206)  
 Manufacturing Engineering Technology, AAS (1359)  
 Manufacturing Engineering Technology, CA (1354)  
 Manufacturing Engineering Technology, CC (1357)  
 Mechanical Systems, AAS (0173)  
 Mechanical Systems, CA (0147)  
 Mold Design and Build Technician, AAS (1350)  
 Advanced Mold Build, CC (1353)  
 Advanced Mold Design, CC (1355)

**MARKETING**

Field Sales and Marketing, AB (0190)  
 Marketing, AB (0204)  
 Marketing, CA (0225)  
 Sales Specialist, CA (0242)

**MEDIA TECHNOLOGY**

Media Technology, AAS (0184)  
 Media Technology, CA (0967)  
 Media Technology-Radio, CA (1251)

**MOTION PICTURE**

Motion Picture Direction, AAS (0900)  
 Motion Picture Production, AAS (0902)  
 Motion Picture Production, CA (0901)

**OFFICE ADMINISTRATION**

Administration & Information Management, AB (0114)  
 Administration & Information Management, CA (0924)  
 Administration & Information Management, CC (0789)  
 Administrative Office Management, AB (1044)  
 Administrative Office Management, CA (1049)  
 Administrative Office Management, CC (1050)  
 Admn & Info Mgmt Professional Studies, CC (1047)  
 Legal Office Administration, CA (1042)  
 Legal Office Administration, CC (1054)  
 Medical Office Administration, CA (1009)  
 Medical Office Administration, CC (1051)  
 Medical Transcription, CA (0968)  
 Medical Transcription, CC (1045)

**PERFORMING ARTS**

Music, AAA (0270)  
 Music: Commercial, AAA (0274)  
 Music Management, AAA (0861)  
 Music Technology, CC (1358)  
 Musicianship Studies, CC (1352)  
 Theatre, AAA (0278)

**PHOTOGRAPHIC IMAGING**

Photographic Imaging, AAS (0277)  
 Photography, CC (0963)

**REAL ESTATE**

Real Estate, AB (0130)  
 Real Estate, CC (0148)

**SCIENCE - APPLIED**

Chemical Process Technology, AAS (0859)  
 Chemical Technology, AAS (0163)  
 Environmental Technology, AAS (0793)  
 Histologic Technology, AAS (0923)  
 Histologic Technician, CC (0965)  
 Molecular Biotechnology, AAS (0212)  
 Veterinary Technology, AAS (0287)

**SIGN LANGUAGE**

Sign Language Interpreter, AAA (0282)  
 Sign Language Interpreter, CA (0187)

**STAGE TECHNOLOGY**

Stage Technology, AAA (0853)  
 Stage Technology, CA (0849)  
 Stage Technology Technician, AAS (0971)

**TECHNOLOGY - GENERAL**

General Technology, AAS (0213)

**TRAVEL/TOURISM**

Tour and Cruise Operations, CC (0920)  
 Travel Agency Operations, CC (0919)  
 Travel and Tourism, AB (0229)

**TRUCK DRIVER TRAINING**

Heavy Equipment/Truck Operator, CA (1256)  
 Truck Driver Training, CC (0262)

**WELDING**

Welding Technology, AAS (0186)  
 Welding Technology, CA (0156)  
 Welding Technology, CC (1356)

**KEY**

AB Associate Degree Business  
 AAA Associate Degree Applied Arts  
 AAS Associate Degree Applied Science  
 CA Certificate of Achievement  
 CC Certificate of Completion

# Course Descriptions



# HOW TO READ COURSE DESCRIPTIONS

Each course description has seven (7) categories of information as follows:

1. Course code
2. Course title
3. Number of semester credit hours
4. Prerequisite
5. Course description
6. Semester planned

For example:



**AVEL 220 Avionics Systems I** 4

**Prerequisite:** AVEL 190 2.0 minimum and AVEL 200 2.0 minimum  
**Restriction:** Avionics Majors  
**Co-requisite course:** AVEL221  
**Recommended:** AVEL191

A study of the communications, navigation, and other systems found in modern aircraft, focusing on component level repair and testing to manufacturer's specifications. Students will have the opportunity to obtain factory certification for the repair of various systems (F)\*

Previous courses, skill levels, training and/or experience required for enrollment. **Other prerequisites may be added.** See *Course Schedule* or department each semester for current information.

Indicates when department plans to offer course, but **does not guarantee** that the course will be offered. See *Course Schedule* or department each semester for current information.

**COURSE DESCRIPTION**

\*F = Fall; Sp = Spring; Su = Summer

## COURSE CODES USED IN DESCRIPTIONS

Courses are listed in course code order. The sequence is as follows:

ACCG	Accounting	CJUS	Criminal Justice
ADMN	Administrative	CPSC	Computer Science
AEET	Alternative Energy Engineering Technology	CUAI	Credit Union Accounting and Insurance
AERO	Aerospace Studies	CUMA	Credit Union Management
AGRI	Agriculture	DANC	Dance
ANTH	Anthropology	DENT	Dental Hygiene
ARCH	Architecture	ECON	Economics
ARTS	Art, Design and Multimedia	EDUC	Education
ARWS	Art Seminars and Workshops	ELTE	Electrical Technology
ASTR	Astronomy	EMSB	Emergency Medical Services Seminars
AUTB	Auto Body Collision Repair	EMTA	Emergency Medical Technology
AUTO	Automotive	ENGL	English
AVAF	Aviation Airframe Maintenance	ENRI	Enrichment
AVEL	Aviation Electronics	ENVR	Environmental Science
AVFT	Aviation Flight Training	ESLP	English as a Second Language
AVGM	Aviation General Maintenance	ESOL	English for Speakers of Other Languages
AVGS	Aviation Ground School	FASH	Fashion
AVPP	Aviation Powerplant Maintenance	FILM	Film Production and Direction
AVST	Aviation Simulator Training	FIRE	Fire Science
BIOL	Biology	FLNG	Foreign Language
BLDR	Building Related	FREN	French
BLDT	Building Trades	GEOG	Geography
BUSN	Business	GEOG	Geology
CABS	Computer Applications Using Business Software	GERO	Gerontology
CHCE	Continuing Health Careers	GRET	Geographic Information Systems
CHDV	Child Development	GRMN	German
CHEM	Chemistry	HEOT	Heavy Equipment Operator Training
CHSE	Community Health Services Education	HERT	Heavy Equipment Repair Technician
CITA	Computer Information Technology/Applications	HIST	History
CITD	Computer Information Technology/Database	HMFS	Hospitality Management and Food Service
CITF	Computer Information Technology/Foundations	HONR	Honors
CITN	Computer Information Technology/Networking	HORT	Horticulture
CITP	Computer Information Technology/Programming	HUMS	Humanities
CITS	Computer Information Technology/Support	HUSE	Human Services
CITW	Computer Information Technology/Web	HVAC	Heat, Ventilation and Air Conditioning
CIVL	Civil Technology	IDMS	Diagnostic Medical Sonography



INSU	Insurance	PFWT	Physical Fitness: Weight Training
INTR	Interior Design	PHIL	Philosophy
IRXT	Radiologic Technology	PHOT	Photography Technology
ISCI	Integrated Science	PHYS	Physics
JAPN	Japanese	POLS	Political Science
JRNL	Journalism	PSYC	Psychology
LABR	Labor Relations	RDGR	Reading: Restricted
LAND	Landscape	READ	Reading
LBST	Liberal Studies Special Topics	REAL	Real Estate
LEGL	Legal Assistant/Paralegal	RELG	Religion
LING	Linguistics	SCIN	Science Technology Internship
MASG	Massage	SCIS	Science Seminars
MATH	Mathematics	SDEV	Student Development
METD	Manufacturing Engineering Technology - Design	SIGN	Sign Language
METM	Manufacturing Engineering Technology - Machining	SOCL	Sociology
METS	Manufacturing Engineering Technology - Systems	SOWK	Social Work
MGMT	Management	SPAN	Spanish
MILS	Military Science	SPCH	Speech Communication
MKTG	Marketing	SPEL	Spelling Development
MTEC	Media Technology	STAT	Statistics
MUSC	Music	STEC	Stage Technology
NANO	Nanotechnology	SURG	Surgical Technology
NURS	Nursing	TDTP	Truck Driver Training Program
PARA	Paramedic	THEA	Theatre
PFAQ	Physical Fitness: Aquatics	TRVL	Travel and Tourism
PFDA	Physical Fitness: Dance	VCBL	Vocabulary Improvement
PFFT	Physical Fitness: Fitness	VIET	Vietnamese
PFHW	Physical Fitness: Health/Fitness Wellness	WELD	Welding Technology
PFKN	Physical Fitness: Kinesiology	WRIT	Writing
PFSP	Physical Fitness: Team and Individual Sports	WRTR	Writing Restricted

# DESCRIPTIONS

## ACCG - Accounting

### ACCG100 Practical Accounting for Non-Majors 3

**Prerequisite:** None

Students will learn the bookkeeping procedures necessary for preparation of financial statements and payroll. (F,Sp,Su)

### ACCG101 Accounting Information for Management 3

**Prerequisite:** None

Students will learn to interpret financial statements and use this information for analysis, budgeting, and decision-making. (F,Sp)

### ACCG102 Special Topics in Accounting 1-4

**Prerequisite:** Determined by Unit Section

This course explores current issues, knowledge, and skills relevant to the accounting profession. Specific topics vary by semester. Check the semester schedule book. (F,Sp,Su)

### ACCG140 Income Tax Preparation 3

**Prerequisite:** None

Students will complete individual income tax returns and supporting schedules according to the Internal Revenue Code. The focus is on the completion of forms rather than the theoretical aspects of the tax law. (F)

### ACCG160 Payroll Systems and Taxes 2

**Prerequisite:** None

**Recommended:** ACCG100 or equivalent work experience  
This course covers laws affecting payroll, calculation of payroll and payroll taxes using both manual and computer payroll systems, preparation of tax forms for payroll taxes, sales and use taxes, and personal property taxes. (Su)

### ACCG161 Accounting with Quickbooks 2

**Prerequisite:** Math Level 4

**Recommended:** ACCG100 or equivalent course coursework or equivalent work experience

Students will have hands-on experience in setting up an accounting system for a new or existing company using the QuickBooks general ledger accounting software. Students also will learn how to perform numerous types of accounting procedures using QuickBooks. (F,Sp,Su)

### ACCG210 Principles of Accounting I 4

**Prerequisite:** Reading Level 5

**Recommended:** Algebra knowledge

Principles of Accounting I is the first class of a two-semester sequence focusing on financial accounting. The course includes accounting for service organizations and merchandisers, doing business as sole proprietorship, partnership or corporation. Topics covered include the basic accounting cycle, financial reporting, accounting theory, and accounting for inventories, cash, receivables and payables, plant assets, and stockholders equity. (F,Sp,Su)

### ACCG211 Principles of Accounting II 4

**Prerequisite:** Minimum 2.0 in ACCG210

**Recommended:** Intermediate Algebra or higher

Principles of Accounting II is the second course in the two-semester accounting sequence. Topics include statement of cash flows, budgets and other managerial reports, capital budgeting, short-term decision-making, equity investments, time value of money, long-term liabilities, manufacturing accounting, job and process costing systems, and accounting for quality and cost management. (F,Sp,Su)

### ACCG220 Intermediate Accounting I 4

**Prerequisite:** Minimum 2.0 in ACCG211

**Recommended:** Electronic spreadsheet experience

Intermediate Accounting I is the first in a two-course sequence focusing on financial accounting and reporting in accordance with generally accepted accounting principles. Topics include the environment and conceptual framework of financial accounting, a review of principles of accounting, accounting for most assets, time value of money concepts, and revenue recognition. (F,Sp)

### ACCG221 Intermediate Accounting II 4

**Prerequisite:** Minimum 2.0 in ACCG220

**Recommended:** Electronic spreadsheet experience

Intermediate Accounting II is the second in a two-course sequence focusing on financial accounting and reporting in accordance with generally accepted accounting principles. Topics include accounting for investments, liabilities, and shareholders' equity. In addition, the statement of cash flows and accounting changes and error correction are reviewed in depth. (F,Sp)

### ACCG230 Cost/Managerial I 4

**Prerequisite:** Minimum 2.0 in ACCG211

**Recommended:** Electronic spreadsheet experience

This course focuses on accounting for manufacturing; cost-volume-profit analysis, responsibility accounting, decision models, activity based costing and activity based management. Other topics include: Just-In-Time inventory, absorption vs. variable costing, role-responsibility and professional ethics of the accountant. Computer applications are emphasized. (F)

### ACCG231 Cost/Managerial II 4

**Prerequisite:** Minimum 2.0 in ACCG230

**Recommended:** Electronic spreadsheet experience

This course focuses on decision-making through control and management of information flow; activity based costing, activity based management; Just-In-Time and other inventory management tools. Other topics include: pricing; cost allocation; sales variances; management control systems; management performance measurement systems; transfer pricing and multi-nationals. Computer applications are emphasized. (Sp)

### ACCG240 Federal Income Tax I 4

**Prerequisite:** Minimum 2.0 in ACCG210

This class is the first in a two-semester sequence in federal income tax. This course deals with taxation of individuals from a historical and theoretical perspective, as well as preparation of individual income tax returns under current tax law. (F,Sp)

### ACCG241 Federal Income Tax II 4

**Prerequisite:** Minimum 2.0 in ACCG240

This class is the second in a two-semester sequence in federal income tax. This course deals with the taxation of corporations, s-corporations, LLC's, partnerships, estates, and trusts from a historical and theoretical perspective, and as well as preparation of tax and information returns under current tax law. (Sp)

### ACCG245 Accounting Internship 2

**Prerequisite:** Department Approval

**Recommended:** Minimum of 8 upper level ACCG credits

This course provides an opportunity to apply classroom learning to a career-related position by working a minimum of 128 hours at an approved work site. A student may do an internship at his/her own job only if the duties are new, accounting related, and provide an appropriate learning situation. (F,Sp,Su)

**ACCG250 Advanced Accounting** 4  
**Prerequisite:** Minimum 2.0 in ACCG221  
 This course covers business consolidations, foreign currency accounting, and partnerships. In addition, the course provides an overview of governmental and nonprofit accounting. (F)

**ACCG260 Accounting Systems** 4  
**Prerequisite:** Minimum 2.0 in ACCG210  
**Recommended:** Keyboarding experience  
 Accounting Systems prepares students to work with and design information systems. Students analyze systems, work with computerized accounting systems, database design, and problem solving with spreadsheets. (F,Sp)

**ACCG266 Independent Study Accounting** 1-4  
**Prerequisite:** Department Approval  
 With this course, students will learn accounting topics currently not included in existing courses. It is expected that the student will spend approximately 48 hours per credit. (F,Sp,Su)

**ACCG271 Principles of Finance** 3  
**Prerequisite:** Minimum 2.0 in ACCG211  
 This course emphasizes the short- and long-term decisions a financial manager may face. Topics include working capital management, risk, cost of capital, capital markets, long-term debt, stocks and dividend policy, mergers and acquisitions, and international financial markets as these topics relate to obtaining financing for a business. (Su)

**ACCG280 Governmental Accounting** 4  
**Prerequisite:** Minimum 2.0 in ACCG211  
 Applications of fund accounting principles are applied to governmental (local and state) and not-for-profit entities. Students learn skills necessary to understand the organization, accounting functions, auditing, and financial reporting practices of governmental and non profit organizations. Governmental Accounting Standards Board (GASB) and Financial Accounting Standards Board (FASB) requirements are taught. (Sp)

**ACCG290 Auditing** 4  
**Prerequisite:** Minimum 2.0 in ACCG221  
 Students will primarily learn about the audit of historical financial statements as performed by certified public accounting firms. Material covered on the CPA exam will be emphasized. (F)

**ACCG295 CPA Review - Tax, Mgmt, Cost and Govern** 1  
**Prerequisite:** None  
**Recommended:** Meet requirements for CPA Examination  
 The course is designed to provide CPA exam candidates with a review of federal taxation, cost, managerial, governmental and nonprofit accounting. Emphasis is given to typical exam questions and strategies to answer them correctly. (F,Sp)

**ACCG296 CPA Review - Business Law** 1  
**Prerequisite:** None  
**Recommended:** Meet requirements for CPA Examination  
 This course is designed to provide CPA exam candidates with a review of business law, especially the provisions of the Uniform Commercial Code. Emphasis is given to typical exam questions and strategies to answer them correctly. (F,Sp)

**ACCG297 CPA Review - Auditing** 1  
**Prerequisite:** None  
**Recommended:** Meet requirements for CPA Examination  
 This course is designed to provide CPA exam candidates with a review of audit concepts, assumptions, and procedures. Emphasis is given to typical exam questions and strategies to answer them correctly. (F,Sp)

**ACCG298 CPA Review - Fin Acct/Report** 1  
**Prerequisite:** None  
**Recommended:** Meet requirements for CPA Examination  
 This course is designed to provide CPA exam candidates with a review of the theory and practice of financial accounting and reporting for business enterprises. Emphasis is given to typical exam questions and strategies to answer them correctly. (F,Sp)

**ADMN - Administrative**

**ADMN102 Editing Business Documents** 3  
**Prerequisite:** Reading Level 5 and Writing Level 4  
**Recommended:** ADMN103 (previously OADM103) and WRIT114 and Keyboarding 25 wpm  
 This course focuses on the development of applied editing skills for business documents and a review of English fundamentals. Topics include use of standard references, grammar and usage of punctuation, spelling, vocabulary, and proofreading. (F,Sp,Su)

**ADMN103 Beginning Keyboarding on the Computer** 2  
**Prerequisite:** None  
**Recommended:** Reading Level 5 and Writing Level 4  
 This course is designed for students having no previous typing experience. Basic keyboarding skills using the touch method are developed. Emphasis is on correct finger usage, developing speed and accuracy using the alphabetic keyboard, number and symbol keys. Basic speed level of 20-35 wpm is developed. Basic letter and report formatting are addressed. (F,Sp,Su)

**ADMN105 Employability Skills** 1  
**Prerequisite:** None  
 Students will develop the basic employability skills necessary to function in a work environment with an emphasis on the use of technology and lifelong learning. The course is designed for those planning to complete the Information Technology Job Readiness certificate program or the Administrative Internship course. (F,Sp,Su)

**ADMN106 Keyboarding Basics** 1  
**Prerequisite:** None  
 Students will develop the introductory keyboarding skills necessary to function in a work environment. The course prepares students for productivity software coursework and is designed for those planning to complete the Information Technology Job Readiness certificate program. (F,Sp,Su)

**ADMN108 Input Technologies/Business** 3  
**Prerequisite:** Reading Level 5 and Writing Level 4  
**Recommended:** Keyboarding and MS Office experience or CITA110  
 This course is designed to expose students to a variety of emerging input mediums for the office environment. Students will learn speech-to-text input using voice recognition software and handwriting input using Microsoft Office, MS One Note, Dragon Naturally Speaking, and a Tablet PC. Students will also be introduced to the use of Personal Digital Assistants (PDAs). (F,Sp,Su)

- ADMN109 Keyboarding Improvement** 2  
**Prerequisite:** None  
**Recommended:** Previous keyboarding and Reading Level 5 and Writing Level 4  
 This course is designed to develop speed and accuracy at the keyboard. Students need to know the alphabetic key locations prior to taking this class. A net speed of 25 words per minute on a three-minute timing is recommended. (F,Sp,Su)
- ADMN119 Business Document Production/MS Office** 4  
**Prerequisite:** Minimum 2.0 in CITA110 and Reading Level 5 and Writing Level 4  
**Recommended:** Typing minimum 35 wpm and ADMN102 (previously OADM102)  
 This course will focus on the creation, revision, and formatting of original business documents such as: reports, minutes, direct mail, brochures, newsletters, proposals and tenders, using a variety of office applications and technologies. Students will complete a semester-long Event Planning project. (F,Sp)
- ADMN195 Human Relations in the Work Place** 2  
**Prerequisite:** Reading Level 5 and Writing Level 4  
 This course emphasizes the importance of human relations in the workplace. Through a combination of case studies, self-analysis inventories, and discussion, students explore the dynamics and interrelatedness of career and personal success. Course topics include self-understanding, dealing effectively with people, conflict resolution, problem-solving, career planning, and lifelong learning. (F,Sp,Su)
- ADMN197 Medical Practice Vocabulary** 3  
**Prerequisite:** Reading Level 5 and Writing Level 4  
 This course introduces concepts of medical vocabulary using a body-systems approach. Emphasis centers on development of the medical language foundation needed for the healthcare field. Students will develop understanding of definition, pronunciation, and spelling by prefixes, root words, suffixes, combining forms, and build medical vocabulary from word parts. (F,Sp,Su)
- ADMN198 Health Information Management** 3  
**Prerequisite:** Minimum 2.0 in ADMN197 (previously OADM197) and Reading Level 5 and Writing Level 4  
 This course introduces students to the diverse settings in health information management. Topics include coding and classification, computerized information systems in health care, quality assurance, and utilization management, risk management, and legal issues. Developments in telemedicine, health informatics, and other technological trends are also presented. (F,Sp,Su)
- ADMN203 Administrative Office Procedures** 3  
**Prerequisite:** Reading Level 5 and Writing Level 4  
**Recommended:** (Keyboarding 40 wpm and MS Office experience) or (CITA110 and ADMN102 (previously OADM102))  
 Students will explore and develop the workplace behaviors and technical skills required of administrative support personnel. Course topics include organizing and planning functions, maintaining equipment and supplies, managing records and files, communications, document production, and information distribution. Use of office and information technologies will be emphasized. (F,Sp)
- ADMN205 Legal Vocabulary, Citations and Document** 4  
**Prerequisite:** Reading Level 5 and Writing Level 4  
**Recommended:** (Keyboarding 40 wpm and MS Office experience) or CITA119  
 This course familiarizes students with commonly used legal terms. Correct citation practice and proper formatting and use of legal language in document production are stressed; legal transcription skills are developed. Procedures for filing documents with the court system and service of process on parties of court action are introduced. (F)
- ADMN207 Medical Transcription** 3  
**Prerequisite:** Reading Level 5 and Writing Level 4  
**Recommended:** (ADMN197 (previously OADM197) or CHSE120) and (BIOL145 or BIOL151 or BIOL201) and ((Keyboarding 40 wpm and MS Office experience) or CITA110)  
 This course is designed to develop foundation skills in the transcription of basic health care dictation, incorporating skills in English language, technology, medical knowledge, proofreading, editing, and research while meeting accuracy and productivity standards. (F,Sp)
- ADMN210 Medical Practice Coding Concepts** 3  
**Prerequisite:** Minimum 2.0 in (ADMN197 (previously OADM197) and ADMN198 (previously OADM198)) and Reading Level 5 and Writing Level 4  
 This course focuses on medical coding concepts in the health care system and deals exclusively with abstracting and coding information from the patient record to optimize reimbursement. The course also provides an opportunity to build the foundation for a future career in medical coding. (F,Sp)
- ADMN215 Information Management I** 2  
**Prerequisite:** Minimum 2.0 in CITA110 and Reading Level 5 and Writing Level 4  
 This course includes an overview of records management; document maintenance at each stage of the records cycle; use of the Internet for RM projects; selection of proper equipment, service bureaus, and off-site storage facilities; and procedures for control of automated records technology in a systems environment. Students will complete computer applications modules using Microsoft Access. (F,Sp)
- ADMN216 Information Management II** 3  
**Prerequisite:** Minimum 2.0 in CITA110 and Reading Level 5 and Writing Level 6  
 This course focuses on the establishment and evaluation of an information/records management program, from preparing an inventory to establishing long-term archival storage for electronic as well as paper media. Knowledge of various government and industry standards will be used to determine the parameters within which an information/records management program should be established. (F)
- ADMN220 Administrative Mgmt in Organizations** 3  
**Prerequisite:** Minimum 2.0 in CITA110 (or concurrently) and Reading Level 5 and Writing Level 6  
**Recommended:** ADMN195 (previously OADM195) and ADMN203 (previously ODM203)  
 This course examines the management of administrative services in the work place and the role of the Administrative Office Manager. Topics include office functions, job analysis, ergonomic planning, and the design, installation and evaluation of office systems. (F,Sp)

4	<p><b>ADMN222 Advanced Medical Transcription</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in ADMN207 (previously OADM207)</p> <p>This course is designed for transcription of advanced healthcare dictation. Students will be required to utilize advanced proofreading, editing, and research skills while meeting increased accuracy and productivity standards. (F,Sp,Su)</p>	<p><b>AEET110 Energy Site Evaluation</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in AEET102 or concurrently</p> <p>This course will cover how to evaluate a site for the most efficient energy usage in terms of site geography, topography, availability of energy and resources, and age of building. Evaluation of a building style and materials for energy usage will be included. Site design features will be redesigned for efficiency/management concerns. (F,Sp)</p>
3	<p><b>ADMN228 Financial Management in Health Care</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in (CITA110 or CITA126) and ADMN198 (previously OADM198) and Reading Level 5 and Writing Level 6</p> <p><b>Recommended:</b> Minimum 2.0 in ACCG100</p> <p>This course focuses on concepts of managed care and its significance in the health care system. Managed care and its impact on financial management, decision making, and information requirements of the health care system are emphasized. Students will view managed care, including ambulatory care, from the perspective of both health insurance companies and providers. (Su)</p>	<p><b>AEET120 Conventional Energy Sources and Use</b> 3</p> <p><b>Prerequisite:</b> Reading Level 3 and Writing Level 4</p> <p>The focus of this course will be on the history of traditional energy sources and reasons why government, business, and industry are turning to alternative and renewable energy sources. Topics include how to reduce fossil fuel usage and how to convert from traditional energy sources to alternative and renewable energy sources. (F,Sp,Su)</p>
3	<p><b>ADMN240 Administrative Internship</b> 2</p> <p><b>Prerequisite:</b> Department Approval with keyboarding 50 wpm and (minimum 2.0 in ADMN105 (previously OADM105) or concurrently)</p> <p>This course is designed to provide on-the-job training relating to an Administrative and Information Management major. Students obtain employment in an approved training station to earn credits for satisfactory work performance. A minimum of 120 hours worksite experience is required. (F,Sp)</p>	<p><b>AEET175 Special Topics in Alternative Energy</b> .25-8</p> <p><b>Prerequisite:</b> Determined by Unit Section</p> <p>This course offers students the opportunity to learn new or advanced skills in Alternative Energy Engineering Technology and other related topics. Specific content may vary with each offering and will be related to the Alternative Energy Engineering Technology Program and profession. (F,Sp,Su)</p>
2	<p><b>ADMN275 Diversity in Business</b> 3</p> <p><b>Prerequisite:</b> Reading Level 5 and Writing Level 6</p> <p>This course is designed to help students become familiar with, understand, and appreciate people of different cultures to promote a more effective basis for working together in the business world. Emphasis and application is placed upon business etiquette and business practices as they differ in various cultures. (F,Sp,Su)</p>	<p><b>AEET215 Geothermal Technology</b> 3</p> <p><b>Prerequisite:</b> Reading Level 3 and Writing Level 4</p> <p>This course will cover the basics of geothermal energy production and technology. Essentials on how to utilize and integrate geothermal technology as an energy source will be analyzed and demonstrated. Examples of residential and commercial applications will be shown and reviewed. (F)</p>
3	<p><b>ADMN291 Administrative Mgmt Capstone</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in (ADMN220 (previously OADM220) or ADMN275 (previously OADM275))</p> <p>This capstone course concludes associate degree requirements for Administrative and Information Management curricula. Students will utilize CAP (Certified Administrative Professional) exam review materials to reinforce the concepts and skills developed in the program. Students will also develop a program portfolio and participate in a service-learning project with a community partner. (F,Sp,Su)</p>	<p><b>AEET216 Solar Energy Technologies</b> 3</p> <p><b>Prerequisite:</b> Reading Level 3 and Writing Level 4</p> <p>This course will cover the basics of solar energy generation including energy collection and storage. Solar power ranging from the heat of the day to solar electric conversion technologies will be covered including Solar Electric (Photovoltaic); Thermal; and Heating, Cooling and Lighting (Active and Passive). A brief history of solar powered energies will be included. (F,Sp)</p>
3	<p><b>ADMN299 Special Topics in Administrative Mgmt</b> 1-3</p> <p><b>Prerequisite:</b> Reading Level 5 and Writing Level 6</p> <p>This course explores current issues, knowledge, skills, attitudes and/or behaviors relevant to the professional preparation and development of office professionals and Administrative and Information Management students. (Sp)</p>	<p><b>AEET217 Biomass, Biogas, and Microturbine Tech</b> 3</p> <p><b>Prerequisite:</b> Reading Level 3 and Writing Level 4</p> <p>This course will focus on the release of chemical energy by accelerating the naturally occurring carbon dioxide cycle and the use of this energy to power engines and generators. Natural fuels and fuels made from plant materials and garbage will be discussed. Engine efficiency and its impact on lower emissions will also be discussed. (F,Sp)</p>
3	<p><b>ADMN299 Special Topics in Administrative Mgmt</b> 1-3</p> <p><b>Prerequisite:</b> Reading Level 5 and Writing Level 6</p> <p>This course explores current issues, knowledge, skills, attitudes and/or behaviors relevant to the professional preparation and development of office professionals and Administrative and Information Management students. (Sp)</p>	<p><b>AEET218 Fuel Cell and Hydrogen Technologies</b> 3</p> <p><b>Prerequisite:</b> Reading Level 3 and Writing Level 4</p> <p>This course will focus on fuel cell conversion devices and other hydrogen based technologies. The history of hydrogen and fuel cell technologies, their application, instrumentation, specifications, codes, system designs and materials will be covered. Basic thermodynamics and heat/mass transfer technology will be discussed. Specific licensing, permits, and safety issues will be covered. (F)</p>
3	<p><b>AEET - Alternative Energy Engineering Technology</b></p> <p><b>AEET102 Prin of Alternative/Renewable Energies</b> 3</p> <p><b>Prerequisite:</b> Reading Level 3 and Writing Level 4</p> <p>This course will cover basic principles and history of alternative energy sources. Industry and government status of geothermal, wind, solar, biomass, fuel cells and other energy sources will be highlighted. Alternative and traditional energies will be defined and compared in terms of today's use. The evolving energy career areas will be discussed. (F,Sp,Su)</p>	<p><b>AEET219 Wind Energies</b> 3</p> <p><b>Prerequisite:</b> Reading Level 3 and Writing Level 4</p> <p>This course will cover the use of naturally occurring winds to create electricity. Wind farms, collection devices and current status of wind energy will be discussed. Horizontal Axis and Vertical Axis Turbines systems will be covered. A brief history of wind energy will be included. (F,Sp)</p>

**AEET250 Alternative Energy Analysis I** 3  
**Prerequisite:** Minimum 2.0 in AEET102  
 This course will analyze current energy systems, their applications and status. The process will include project recommendations based on the site, structures and both existing and proposed features. Analysis will be project-based and require cost comparison of various energy solutions. (F,Sp)

**AEET255 Alternative Energy Analysis II** 3  
**Prerequisite:** Minimum 2.0 in AEET250  
 This course will analyze current energy management systems and technologies for the most efficient energy usage in terms of site geography, topography, availability of energy and resources. Site design features will include energy efficiency/management concerns. The Energy Star Program guidelines from the U.S. Department of Energy for energy efficient solutions will be covered. (F,Sp)

**AEET260 Codes, Regulations and Standards** 3  
**Prerequisite:** Reading Level 5 and Writing Level 6  
 This course will cover the codes, regulations, and industry standards that are currently in place for sustainable energy buildings and Green Buildings. Evaluation of a building style and the energy efficient materials used in its construction will be included. (F,Sp)

**AEET270 The Energy Crisis: Business Solutions** 3  
**Prerequisite:** Reading Level 3 and Writing Level 2  
 In this course, students develop an awareness of the energy crisis and the use of alternative energy. Topics include the nature and extent of energy and its resources, energy conservation and efficiency, the economic and environmental effects of energy use, and business, tax, and legal structures, and grant funding for alternative energy technologies. (F,Sp)

**AERO - Aerospace Studies**

**AERO111 Foundation of the USAF I** 1  
**Prerequisite:** None  
 This course provides an introduction to the U.S. Air Force today. Course topics include mission and organization, group leadership problems, and introduction to communication skills. Includes a leadership laboratory. (F)

**AERO112 Foundation of the USAF II** 1  
**Prerequisite:** None  
 This course provides an introduction to the U.S. Air Force today. Course topics include officership and professionalism, group leadership problems, and introduction to communication skills. Includes a leadership laboratory. (Sp)

**AERO211 Evolution of USAF Air & Space Power I** 1  
**Prerequisite:** None  
 This course focuses on Air Force heritage. Course topics include evaluation of air power concepts and doctrine, introduction to ethics and values, introduction to leadership, and the continuing application of communication skills. Includes a leadership laboratory. (F)

**AERO212 Evolution of USAF Air & Space Power II** 1  
**Prerequisite:** None  
 Course topics include the role of technology in the growth of air power, group leadership problems, and the continuing application of communication skills. Includes a leadership laboratory. (Sp)

**AGRI - Agriculture**

**AGRI101 Principles of Precision Agritechology** 2  
**Prerequisite:** None  
 This course introduces the field of precision agricultural technology. The combining of the latest technologies, i.e., Global Positioning Systems and Integrated Pest Management, make traditional agricultural practices as accurate and customized as possible for each specialized crop. (F,Sp)

**AGRI106 Diseases & Insects of Agrinomic Crops** 2  
**Prerequisite:** None  
 This course is for the professional applicator or farm operator interested in a basic knowledge of insects, diseases, vertebrates, and microorganisms that affect agrieconomic crops. Environmental problems, soil, fertilizers, planting, integrated pest management, and problem solving techniques will be stressed. Can be used toward pesticide certification by the Michigan Department of Agriculture. (F)

**AGRI175 Special Topics in Precision Agriculture** .25-8  
**Prerequisite:** Determined by Unit Section  
 This course offers students the opportunity to learn new or advanced skills in Precision Agriculture Technology and other related topics. Specific content may vary with each offering and will be related to the Precision Agriculture Technology Program and profession. (F,Sp,Su)

**AGRI200 Vegetation and Weed Management** 3  
**Prerequisite:** None  
 Students will develop skills necessary to monitor, control, and identify by species both vegetation and weed plants. Vegetation will be evaluated from seedling to mature stage for proper control measures by both natural and chemical controls. Various chemicals will be judged for environmental impact and effective control. (F,Sp)

**AGRI201 Principles of Sustainable Agriculture** 3  
**Prerequisite:** None  
 The modern era principles of sustainable agriculture will be covered by way of lecture and demonstration. The practice of proper plant selection, species requirements, land use, fertilization needs, and pesticide practices will be highlighted. Scientific practices utilized in plant genetics and technology applications will also be discussed. (F)

**AGRI202 Agricultural Soils and Crop Management** 3  
**Prerequisite:** None  
 This course covers all aspects of soils related to agricultural production of food and fiber crops. Soil classification, texture, composition and conditions will be analyzed, evaluated and managed. Soil conditions relating to environmental fertilization and composition problems will be evaluated. Soil erosion and conservation management practices will also be highlighted. (F,Sp)

**AGRI211 Agricultural Crop Production** 3  
**Prerequisite:** None  
 This course will focus on the basic components of cash crop production in the modern agricultural environment. Crop identification management and harvesting techniques will be highlighted for the major crops utilized in today's marketplace. Crop production techniques will be emphasized with a thorough evaluation of modern technology practices. (Sp)

**AGRI212 Vegetable Crop Production** 3  
**Prerequisite:** None  
 This agricultural production course will cover the seed production, planting, management, IPM and harvesting of vegetable crop plants. Vegetable crops such as sweet corn, tomatoes, peppers, beans, spinach, melons, peas and cold weather crops will be discussed. Vegetable crop marketing in the Great Lakes region will also be discussed. (F,Sp)

**AGRI213 Agri Site Specific Research Technology** 3  
**Prerequisite:** None  
 This course will evaluate the various new technologies available to farmers and agriculturists. Technologies such as computers, GIS systems, GPS receivers, field monitors, sensors, pad computers, etc. will be evaluated as to their function and incorporation into specific farming production practices. IPM and crop genetic technologies will also be discussed. (Sp)

### ANTH - Anthropology

**ANTH270 Cultural Anthropology** 3  
**Prerequisite:** Reading Level 5 and Writing Level 6  
 This course compares ways of life for societies worldwide using anthropological theory and methodology. Basic institutions of pre-industrial society, such as kinship, religion, law, politics, and economics are examined to provide a better understanding of the diversity of contemporary societies. Cultural variations and the role culture plays in adapting to the environment is emphasized. (Sp)

**ANTH271 Medical Anthropology** 3  
**Prerequisite:** Reading Level 5 and Writing Level 6  
 Medical Anthropology examines the connections between culture and health and illness. The course focuses on contemporary and alternative medicine, including traditional and native healing; and disease patterns in different cultures. A cross-cultural perspective that is invaluable in working with the health of diverse populations is explored. (F)

**ANTH275 Physical Anthropology and Archaeology** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** SOCL120 and (BIOL145 or BIOL201 or High School Biology)  
 An overview of human biological and cultural evolution as evidenced in fossil records. Mechanisms of evolution and cultural adaptation will be traced from pre-historic origins through the development of modern homo sapiens. Major theoretical approaches and methodologies within the subdisciplines of anthropology will be incorporated. (F)

**ANTH276 World Archaeology** 3  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** ANTH270 and/or SOCL120  
 A general survey of archaeology. Includes an overview of the history of the field and the basic theories and methods employed in the study of prehistoric and historic cultures. Archaeological data and sites are used to explain the extinction and continuation of human societies. (Sp)

### ARCH - Architecture

**ARCH100 Introduction to Architectural Drawing** 3  
**Prerequisite:** Math Level 3  
**Recommended:** MATH050 or concurrently  
 This course provides a background in basic drafting. It is an introductory course that teaches the fundamental concepts of drafting and provides hands-on experience for developing drafting skills and techniques. Students will learn architectural line work, orthographic and isometric drawings, lettering, sketching and an introduction to architectural plan, section and elevation. (F,Sp,Su)

**ARCH110 Visual Communications I** 3  
**Prerequisite:** Minimum 2.0 in (ARCH100 or concurrently) or Drafting Placement Test 80%  
 This course concentrates on architectural graphics and will introduce students to basic techniques of freehand sketching, drafting, orthographic, axonometric, and perspective drawings. Entourage and delineation skills will also be addressed. The production of the most commonly used techniques of black and white architectural rendering and presentation drawing will be studied. (F,Sp,Su)

**ARCH111 Architectural Design Fundamentals** 3  
**Prerequisite:** Reading Level 4 and Writing Level 4  
**Recommended:** ARCH110 (previously ARCH121) or concurrently  
 This course examines the universal principles and elements of two-dimensional design and their application as it relates to architecture. Case studies of buildings that exemplify the elements and principles will be presented and diagrammed to develop an understanding of basic organizational approach to building design. (F,Sp)

**ARCH112 Residential Planning** 3  
**Prerequisite:** Minimum 2.0 in ((ARCH110 (previously ARCH121) or concurrently) and (ARCH111 or concurrently))  
 In this course for beginning students of architecture technology, the theories and practices of planning through research and application of interior design elements will advance their specific knowledge of residential planning. Further development of visual communication techniques and development of professional oral communication skills will be emphasized. (F,Sp)

**ARCH114 Architectural Drawing/Basic CAD** 4  
**Prerequisite:** Minimum 2.0 in ((CITF108 or concurrently) or MS Windows Assessment 80%) and Reading Level 4 and Writing Level 4 and Math Level 4  
**Recommended:** Minimum 2.0 in (ARCH112 (previously ARCH128) or concurrently) or (minimum 2.0 in INTR170)

This course introduces architecture technology students to computer-aided drafting for residential application. Basic commands, drafting techniques, drawing accuracy, and industry standards will be emphasized. Lectures, in class demonstration and lab sessions will be utilized to create two-dimensional residential drawings. (F,Sp,Su)

**ARCH116 Materials of Construction** 4  
**Prerequisite:** Reading Level 4  
 This course consists of the evaluation of the various characteristics of all materials commonly used in residential and light commercial structures. Students will develop a sensitivity to the use of building products based on a knowledge of their properties, limitations, and availability. (F,Sp)

- ARCH120 Visual Communications II** 3  
**Prerequisite:** Minimum 2.0 in ARCH110 (previously ARCH121)  
 This course is a continuation of Visual Communications I. Students will gain knowledge of basic color rendering techniques using a variety of media. (Sp)
- ARCH126 Architectural Model Building** 3  
**Prerequisite:** Minimum 2.0 in ARCH100 or Drafting Placement Test 80%  
**Recommended:** ARCH111  
 Students in this course will enhance their design and communication skills by developing various techniques for building three-dimensional architectural models. Examples constructed will range from the most basic of study models, using readily available materials, to more sophisticated presentation models. (F)
- ARCH141 History of Architecture I** 3  
**Prerequisite:** Reading Level 4 and Writing Level 4  
 Beginning with ancient times, this course studies the major civilizations and works of architecture, and analyzes the form and function of the built environment contributed by the most significant of the Western civilizations. A variety of visual media will be used to present the major theories, architectural works, and the significant personalities contributing to architecture up to the Italian Renaissance. (F)
- ARCH142 History of Architecture II** 3  
**Prerequisite:** Reading Level 4 and Writing Level 4  
 This course is the second in a series about the architectural history of the western world. The works and figures of architecture and the decorative arts in western architectural history from the 1500's to contemporary times are examined. (Sp)
- ARCH146 Preservation/Adaptive Use Architecture** 3  
**Prerequisite:** Minimum 2.0 in (ARCH110 (previously ARCH121) or concurrently)  
 This course is an overview of the principles and practices of preservation, restoration, and adaptive use architecture. Students will have the opportunity to work on a preservation/adaptive use project while being introduced to research methods, materials, terminology, architectural styles, and appropriate preservation and adaptive measures for historic structures. (F)
- ARCH175 Special Topics in Architecture** .25-8  
**Prerequisite:** Determined by Unit Section  
 This course offers students the opportunity to learn new or advanced skills in computer aided drafting or other topics as applied to architecture. Specific content may vary with each offering and will be related to the Architecture Program and profession. (F,Sp,Su)
- ARCH181 Universal Design Theory** 3  
**Prerequisite:** None  
 Access for people with disabilities to building and other man-made environments will be discussed as well as the application of the Americans with Disabilities Act (ADA) and other residential and commercial building codes. Elements of successful design will be emphasized as well as their design and construction. (F,Su)
- ARCH182 Applied Universal Design** 3  
**Prerequisite:** None  
**Recommended:** ARCH100 and ARCH181  
 Students will learn to apply the requirements of the Americans with Disabilities Act (ADA) and building codes to successfully design solutions to both commercial and residential design problems. Both study cases and original design projects will be used as well as first hand experiences. (Sp)
- ARCH210 Residential Detailing** 4  
**Prerequisite:** Minimum 2.0 in (ARCH114 (previously ARCH231) and (ARCH116 (previously ARCH283) or INTR190 or concurrently))  
 Intermediate level computer-aided architectural detailing course using the latest release of AutoCAD software. Students will focus on development of residential construction details while building on the skills acquired in ARCH114. Students will complete advanced projects and research in a variety of typical architectural practice applications. (F)
- ARCH211 Design Studio** 3  
**Prerequisite:** Minimum 2.0 in ARCH111  
 This course is an introduction to the basic theories and methods of architectural design, problem-solving techniques, and design methodologies using contemporary architects as examples. Students will be given a series of problem-solving exercises and will be instructed in developing presentation and verbal techniques to present their solutions. (Sp)
- ARCH213 Facilities Design** 3  
**Prerequisite:** Minimum 2.0 in (ARCH100 or METD100 (previously CADD100) or Drafting Placement Test 80%)  
 In this course, students will explore, tour, and study the design theory behind a full range of existing structures used for commercial purposes. Students will be given a site specific project and will be instructed in developing a program related solution. Students will use previously obtained CAD, research, and presentation skills to design, delineate and present their project. (F,Sp,Su)
- ARCH214 Structural Theory** 4  
**Prerequisite:** Math Level 5  
**Recommended:** (ARCH100 or concurrently) or Drafting Placement Test 80%  
 This course introduces the principles of statics and relates the application of physical forces to structural materials and elements. The structural and design properties of steel and wood will be studied. The ability to read structural tables and accurately make calculations will be emphasized. (F,Sp)
- ARCH216 Residential Drawing** 4  
**Prerequisite:** Minimum 2.0 in (ARCH210 and ARCH214 (previously ARCH271))  
 A capstone course designed for advanced students of architecture technology for preparation of residential construction documents. Added to previously obtained computer-aided drafting skills, structural theory and materials of construction, students will advance their specific knowledge through readings, lecture and completion of a fully drafted and detailed residential construction document set. (Sp)
- ARCH218 Commercial Architectural Planning** 4  
**Prerequisite:** Minimum 2.0 in (ARCH111 and ARCH114 (previously ARCH231) and (ARCH116 (previously ARCH283) or INTR190))  
 In this intermediate level architecture technology course, students will use previously obtained drawing, research, and presentation skills to design, delineate, and present a light commercial project from basic schematics to presentation drawings. (F)
- ARCH220 Commercial Architectural Drawing** 4  
**Prerequisite:** Minimum 2.0 in (ARCH214 (previously ARCH271) and ARCH218 (previously ARCH201))  
 In this capstone course, students of architecture technology will complete a set of commercial construction documents based on the schematic design developed in ARCH218. Previously obtained computer-aided drafting, research, and structural theory skills will be used to aid in the completion of a full set of construction documents. (Sp)



**ARCH221 Architectural DataCAD I** 4  
**Prerequisite:** Minimum 2.0 in ((CITF108 or concurrently) or MS Windows Assessment 80%) and Reading Level 4 and Writing Level 4 and Math Level 4  
**Recommended:** Minimum 2.0 in (ARCH112 (previously ARCH128) or concurrently) or (minimum 2.0 in INTR170)  
 This is an introduction to architectural computer-aided drafting. Students will use Data CAD's Edit and Utility functions to create a series of two-dimensional drawings, including floor plans, elevations and building sections. An introduction to DataCAD's 3-D Modeler will also allow students to develop basic three-dimensional images. (F,Sp)

**ARCH222 Architectural DataCAD II** 4  
**Prerequisite:** Minimum 2.0 in ARCH221  
 This course is a continuation of ARCH221 and will develop students' skills by introducing advanced two-dimensional operations, the creation and use of template symbols, and a complete overview of DataCAD's macro programs. Complete three-dimensional modeling will be taught including complex 3-D entities for developing professional presentations. (Sp)

**ARCH225 Architectural DataCAD Independent Study** 1-4  
**Prerequisite:** Minimum 2.0 in ARCH222 and Department Approval  
 This course is intended to give advanced architectural students an opportunity to complete a special project(s) that relates to the student's curriculum. The student will research, outline, design and construct a project(s) of their own selection with the approval and guidance of the instructor, using the DataCAD software program. (F,Sp,Su)

**ARCH232 AutoCAD Architectural Desktop** 4  
**Prerequisite:** Minimum 2.0 in ARCH114 (previously ARCH231)  
 This course is a continuation of the basic/introduction of AutoCAD and utilizes advanced two-dimensional techniques. Architectural Desktop software will be introduced to create three-dimensional drawings and drawing sets. The course will also emphasize advanced methods of drawing/file setup, presentation techniques, and introduce the student to various methods of program customization. (F)

**ARCH233 Autodesk Revit Building** 3  
**Prerequisite:** Minimum 2.0 in (ARCH114 (previously ARCH231) or ARCH210)  
 This course is an introduction to Autodesk Revit Building software, a three-dimensional building modeler that generates all phases of design from concept sketches through construction documentation. Students will develop three-dimensional parametric models and standard two-dimensional construction drawings for typical construction use. Previously obtained AutoCAD knowledge will be used as a reference. (Sp)

**ARCH235 Architectural AutoCAD Independent Study** 1-4  
**Prerequisite:** Minimum 2.0 in ARCH232 and Department Approval  
 This course is intended to give advanced architectural students an opportunity to complete a special project(s) that relates to the student's curriculum. The student will research, outline, design and construct a project(s) of their own selection, with the approval and guidance of the instructor, using the AutoCAD software program. (F,Sp,Su)

**ARCH273 Environmental Systems** 4  
**Prerequisite:** None  
**Recommended:** ARCH100 or equivalent  
 This course is designed for architecture and interior design students. All elements affecting the interior environment of a commercial or residential structure, such as lighting, HVAC systems, and acoustics, will be studied. Calculations and the sizing of systems will be part of all sections. (F,Sp)

**ARCH276 Alternative Structures** 3  
**Prerequisite:** None  
 A survey of several unconventional construction types that include concrete systems, log building, pole construction, timber frame, structural insulated panel, straw bale, tire building and earthen systems. Field examples will demonstrate many different technologies. Concepts will relate these structures to emerging appropriate architecture issues: integrated technologies, material sustainability and recycling in construction. (F,Sp)

**ARCH278 Building Science** 4  
**Prerequisite:** None  
 Building science is used to examine how buildings work. The concept of systems integration is studied from the perspective of the building and its occupants in their environmental context. Computer assisted calculation of heat loss, passive solar design and economic analysis will be covered. Communication and analytic skills will be developed through classroom activities and research. (F,Sp)

**ARCH295 Architectural Independent Study** 1-4  
**Prerequisite:** Department Approval  
 This course will give advanced architectural students an opportunity to complete a special project(s) that relates to their architectural curriculum. With the approval and guidance of an instructor, the students will research, outline, design, and construct a project(s) of their own selection. (F,Sp,Su)

### ARTS - Art, Design and Multimedia

**ARTS102 Design & Communication** 3  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** Computer experience  
 An examination of visual communications theory, process and history. Students will study the universal elements and principles of two-dimensional design and their applications in monochromatic, color, still, and time-based media. (F,Sp,Su)

**ARTS103 3-Dimensional Design** 3  
**Prerequisite:** Minimum 2.5 in (ARTS102 or IMAG112 )  
 This is an introductory course exploring the elements and principles of three-dimensional design. The course will examine traditional and time-based potentials of materials and objects. (F,Sp)

**ARTS105 Adobe Photoshop for Non-Majors** 2  
**Prerequisite:** None  
**Recommended:** Computer experience  
 This course is designed to give non-majors an introduction to the Adobe Photoshop software. Students will learn file formats and saving files properly, scanning, color correction and adjustment, compositing, and image manipulation of print and digital images for web use and printed output. (F,Sp,Su)

**ARTS106 Color Theory and Practices** 3  
**Prerequisite:** Minimum 2.5 in ARTS102  
 Introduces the student to the applications of additive and subtractive color theory. Students will learn to produce acceptable color imagery for print, web, and multimedia output, using both traditional and digital media. (F,Sp)

<p><b>ARTS110 Special Topics in Fine Arts</b> 1</p> <p><b>Prerequisite:</b> None</p> <p>This course offers students the opportunity to learn new art techniques, skills and/or styles. These topics are open to students of all skill levels. Specific topics will vary by semester; check semester schedule book for topics to be offered. (F,Sp)</p>	<p><b>ARTS145 Screen Printing I</b> 4</p> <p><b>Prerequisite:</b> Minimum 2.5 in ARTS102 or concurrently</p> <p>An introduction to basic silkscreen stencil processes with an emphasis on registration techniques. Includes constructing a frame and making a photo transparency. (F,Sp)</p>
<p><b>ARTS114 Oriental Watercolor</b> 2</p> <p><b>Prerequisite:</b> None</p> <p>An introduction to the materials and techniques that are unique to Oriental watercolor and calligraphy. Examines rice paper characteristics and degrees of paper wetness; brushes and tools; calligraphy; and inscriptions and seals. Students will also learn the underlying philosophy behind the practice of Oriental watercolor. (F,Sp)</p>	<p><b>ARTS146 Screen Printing II</b> 4</p> <p><b>Prerequisite:</b> Minimum 2.5 in ARTS145</p> <p>Students expand on processes and concepts introduced in Screen Printing I (ARTS145). Includes an in-depth study of photographic processes in combination with paper, cut film, and block-out stencils. (F,Sp)</p>
<p><b>ARTS131 Drawing I</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in (ARTS102 or FASH110 or IMAG112 or INTR110) or concurrently</p> <p>An introductory studio course using a variety of drawing media and methods. Concepts of realism, visualization, and abstraction are examined. Fundamental elements of drawing, concepts of perception, and exploring properties of various media are stressed. Basic principles of one- and two-point perspective are covered. (F,Sp,Su)</p>	<p><b>ARTS151 Computer Graphics/Illustration</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in ARTS131 and Reading Level 5 and Writing Level 6</p> <p><b>Recommended:</b> Knowledge of Mac OSX</p> <p>An introduction to digital painting and illustration. Integrates foundational drawing and design skills with the creation and manipulation of digital art media. This course prepares students in advanced image creation for all ARTS curricula. (Su)</p>
<p><b>ARTS132 Figure Drawing</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in ARTS131</p> <p>This course explores fundamentals elements of drawing, visualization, and perception of the human figure, using a variety of drawing media and methods. Live models will be use. (F,Sp,Su)</p>	<p><b>ARTS153 Image and Idea</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in ARTS132</p> <p>This is an introductory level course in visual thinking, conceptual drawing and studio practices. Students will learn to translate verbal and written ideas (concepts) through creative processes into visual information in the form of black &amp; white and color drawings that are consistent with specific reproduction issues. (F,Sp)</p>
<p><b>ARTS133 Surface Anatomy for Artists</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in ARTS132 or concurrently</p> <p>This course is designed specifically for the visual artist. Emphasis will be on identifying and visually representing the effects that the skeletal and muscular systems and body type have on human surface anatomy. Live models will be used. This course cannot be taken as a Science Department anatomy requirement. (F,Sp,Su)</p>	<p><b>ARTS162 Type Communications</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in ARTS102 or concurrently</p> <p>An introduction to the utilization of type in a variety of visual communications with an emphasis on creativity and problem solving. Students will be introduced to the tools and techniques of manual and digital type formatting in professional type layout for print and web purposes. (F,Sp,Su)</p>
<p><b>ARTS136 Figure Sculpture</b> 4</p> <p><b>Prerequisite:</b> Minimum 2.5 in ARTS132</p> <p>A studio course in the 3-Dimensional representation of the human figure. The student will use various modeling tools to sculpt the figure in clay. Projects will include: gestural sketches, anatomical details, and reclining, seated and standing full-figure poses. Live models will be used. (F,Sp)</p>	<p><b>ARTS171 Computer Graphics/Digital Imaging</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in (ARTS102 or FASH110 or IMAG112 or INTR110) or concurrently</p> <p>An introduction to computer manipulation of photographic images. Topics covered include resolution, scanning, output, file formats, retouching, color correction, and compositing. (F,Sp,Su)</p>
<p><b>ARTS137 Perspective Drawing</b> 2</p> <p><b>Prerequisite:</b> Minimum 2.5 in ARTS131</p> <p>This course provides further development of the drawing process by presenting expanded perspective principles and quality of light with an emphasis on visualization. (F,Sp,Su)</p>	<p><b>ARTS173 Computer Graphics/Web Design</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in ARTS171 or concurrently and Reading Level 5 and Writing Level 6</p> <p>A course in the effective visual presentation of ideas for the web from concept and design to structure, preparation and production. Focus on the elements and principles of design as applied to layout, graphics and animation. (F,Sp,Su)</p>
<p><b>ARTS140 Printmaking I</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in (ARTS102 and ARTS131)</p> <p>An introduction to Printmaking processes, tools, and the vocabulary of the printmaker. Students will work with intaglio, monotype, and relief printing processes. (F,Sp)</p>	<p><b>ARTS175 Creative Design and Publishing</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in (ARTS102 and ARTS162)</p> <p>An introductory creative course involving page layout software, vector-based illustration software, and related software programs utilizing the Macintosh computer. The focus is on using related publishing applications for design and layout. (F,Sp,Su)</p>
<p><b>ARTS141 Printmaking II</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in ARTS140</p> <p>Students expand on processes and concepts introduced in Printmaking I (ARTS140). Emphasizes refining technical skills and conceptual development. (F,Sp)</p>	<p><b>ARTS190 Matting and Framing Techniques</b> 1</p> <p><b>Prerequisite:</b> None</p> <p>An overview of the various materials and techniques for displaying and exhibiting artwork. Students will apply demonstrated techniques to matting and framing their work. (F,Sp)</p>

4	<p><b>ARTS195 Employment &amp; Business Issues for Artists</b> 1</p> <p><b>Prerequisite:</b> None</p> <p>An introduction to business, legal, and marketing issues relevant to visual artists. Students will be introduced to copyright, contracts and negotiation concerns, and basic record keeping. (F,Sp)</p>	<p><b>ARTS221 Airbrush Techniques I</b> 4</p> <p><b>Prerequisite:</b> None</p> <p>Introduction to the operation and techniques of the airbrush in shading and creating textures in both black and white and color. Assignments include using various masking methods and freehand techniques. (F,Sp,Su)</p>
4	<p><b>ARTS200 Painting I</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in (ARTS106 and ARTS131)</p> <p>An introduction to oil and/or acrylic painting. The course examines the basic materials, tools, techniques, and modes of expression of painting. (F,Sp,Su)</p>	<p><b>ARTS222 Airbrush Techniques II</b> 4</p> <p><b>Prerequisite:</b> Minimum 2.5 in ARTS221 or (minimum 2.5 in ARTS131 or concurrently)</p> <p>A continuation of Airbrush Techniques I (ARTS221) with an emphasis on more complex airbrushing problems including portrait rendering and painting of non-metallic surfaces. A variety of surfaces will be used including fabric, leather, fingernails, and pastries. (F,Sp,Su)</p>
3	<p><b>ARTS201 Painting II</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in ARTS200</p> <p>A continuation of Painting I (ARTS200) emphasizing more advanced techniques and increasingly complex problems in painting. A variety of media, techniques, and approaches is explored. (F,Sp,Su)</p>	<p><b>ARTS225 Comics: Narrative in Art</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in ARTS132</p> <p>This class is the foundation course for producing Sequential Art. It deals with techniques applicable in the design and rendering of artwork used in contemporary illustrated publications such as comic books, comic strips, graphic novels, and web comics. (F,Sp)</p>
3	<p><b>ARTS203 Figure Painting</b> 4</p> <p><b>Prerequisite:</b> Minimum 2.5 in (ARTS102 and ARTS132)</p> <p>A studio course in the human figure using various media such as oil paint, watercolor, acrylic paint, and pastel. Live models will be used. (F,Sp,Su)</p>	<p><b>ARTS226 Storyboards</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in ARTS151</p> <p>Storyboards are the standard method of translating visual information for animation, video and film. This course teaches visual thinking and techniques for designing and drawing professional storyboards. (F,Sp)</p>
3	<p><b>ARTS204 Watercolor I</b> 4</p> <p><b>Prerequisite:</b> Minimum 2.5 in (ARTS102 and ARTS131)</p> <p>An introduction to the art of transparent watercolor. Examines paper characteristics, degrees of wetness, brushes and tools, and various techniques in producing watercolor art works. (F,Sp)</p>	<p><b>ARTS228 Advanced Digital Imaging</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in ARTS171 and Reading Level 5 and Writing Level 6 and Math Level 5</p> <p>An advanced level study in the manipulation and processing of digital photographic images. Emphasis is on professional scanning, manipulation and output of digital images using available software products. Instruction includes preparation of images for prepress (hardcopy) and soft display (Multimedia, CD-ROM and World Wide Web). (F,Sp,Su)</p>
3	<p><b>ARTS205 Watercolor II</b> 4</p> <p><b>Prerequisite:</b> Minimum 2.5 in ARTS204</p> <p>A continuation of Watercolor I (ARTS204) emphasizing more advanced techniques and increasingly complex problems using watercolor. (F,Sp)</p>	<p><b>ARTS229 Computer Graphics/Advanced Web Design</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in ARTS173 and Reading Level 5 and Writing Level 6 and Math Level 5</p> <p>An advanced course in interaction and its application to web design problems. Focuses on the structuring of information, conceptualization and sequencing in the design of web sites. (F,Sp)</p>
3	<p><b>ARTS206 Advanced Watercolor</b> 4</p> <p><b>Prerequisite:</b> Minimum 2.5 in ARTS205</p> <p>An opportunity for the advanced student to continue with his or her personal exploration and development of watercolor skills under the guidance of an instructor. (F,Sp)</p>	<p><b>ARTS231 Computer Graphics/Advanced Illustration</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in (ARTS151 and ARTS171)</p> <p>This is an advanced digital art course emphasizing visualizations from data, observation, and/or imagination. Imagery will be created from individual or integrated multiple software packages for digital or print output. Aesthetic issues of printing, time and digital environment genres will be introduced. (F,Sp)</p>
3	<p><b>ARTS213 Illustration Fundamentals</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in ARTS132</p> <p>Illustrative techniques are utilized to prepare working sketches and convert them to finished illustrations. Emphasis is placed on sound draftsmanship and solving simple graphic problems through illustration. (F,Sp)</p>	<p><b>ARTS232 Computer Graphics/2-D Animation</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in (ARTS151 and ARTS171 and ARTS216) and Reading Level 5 and Writing Level 6</p> <p>Creation of 2-D animations using the computer. Emphasis is on the theory and principles of animation. Student will develop an animation of a bipedal character. (F,Sp)</p>
3	<p><b>ARTS216 Humorous Illustration I</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in ARTS132</p> <p>Basic humorous illustration/cartooning foundations are demonstrated. Exercises are given on cartooning heads, animals, objects, and drawing techniques. Graded projects include a caricature utilizing a drawing technique. Originality and imagination are emphasized. (F,Sp,Su)</p>	
1	<p><b>ARTS217 Humorous Illustration II</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in ARTS216</p> <p>A continuation of Humorous Illustration I designed to expand the student's humorous illustration skills through a variety of black-and-white and color projects. Projects will concentrate on the various commercial applications of humorous illustration. (Sp)</p>	

**ARTS234 Comp Graphics/3-D Animation I** 3

**Prerequisite:** Minimum 2.5 in (ARTS151 and ARTS171) and minimum 2.0 in PHYS120 and Reading Level 5 and Writing Level 6 and Math Level 4

Concepts and techniques of 3D computer animation. An introduction to the world of Digital Form, Space and Lighting. Topics covered in this course include the theories of 3-D space, surface modeling, rendering, lighting and key frame animation. Includes an overview of the history of 3D computer modeling, rendering and animation. (F,Sp)

**ARTS235 Computer Graphics/3-D Animation II** 3

**Prerequisite:** Minimum 2.5 in ARTS234 and Reading Level 5 and Writing Level 6 and Math Level 4

This course builds upon ARTS234. It continues the approach of increasing skills and artistic practice in all areas of 3D animation: concept, modeling, animation and rendering. (F,Sp)

**ARTS236 Computer Graphics and Production** 3

**Prerequisite:** Minimum 2.5 in (ARTS229 or ARTS234)

This course covers analysis, design, and development of a completed electronic project such as a CD, videotape, or WWW publishing. Techniques include recording and editing of two- and three-dimensional graphics, animation, video, audio, and imaging. Students implement theory and practice for designing, producing, and disseminating multimedia at planning pre-production, managing production, and post-production levels. (F,Sp)

**ARTS237 Computer Graphics/Flash Game Design** 3

**Prerequisite:** Minimum 2.5 in ARTS229 and Reading Level 5 and Writing Level 6 and Math Level 5

**Recommended:** Experience with simple programming concepts  
This course introduces students to the fundamental programming concepts used to create 2D games. Students will learn what makes a good game, how to design it, and how to program it for web delivery using ActionScript, the object-oriented scripting language in Flash. (F,Sp)

**ARTS238 Comps and Animatics** 3

**Prerequisite:** Minimum 2.5 in ARTS151 and (ARTS232 or ARTS234) and Reading Level 5 and Writing Level 6

**Recommended:** Experience with a digital editing software such as Adobe Premiere, Final Cut Pro, or Adobe After Effects

The purpose of this course is to prepare the student to make comprehensive presentation art for print advertising, illustrated periodicals, storyboards, and animatics. This is an advanced level sequential art and production rendering course. Students will produce artwork using traditional media as well as computer software. (F,Sp)

**ARTS240 Art for Elementary Teachers** 3

**Prerequisite:** Reading Level 5 and Writing Level 6

**Recommended:** EDUC201 and EDUC220

Especially for elementary school teachers responsible for the student art experience. Emphasis on developing a greater art appreciation, awareness of art forms, and competency working with a variety of art media. Covers the creative and mental growth of children and their needs in an art situation. (F,Sp,Su)

**ARTS242 Digital Video & Audio Effects** 3

**Prerequisite:** Minimum 2.5 in ARTS171 and (FILM118 or MTEC140) and Reading Level 5 and Writing Level 6

This course covers the creation of computer graphics effects for compositing, with an emphasis on technical and aesthetic aspects using advanced professional software. Students will produce several projects combining digital video, static images, computer graphics, animation, special effects, and audio. (F,Sp)

**ARTS251 Graphic Design Communications** 3

**Prerequisite:** Minimum 2.0 in ARTS175 or concurrently

An overview of the designer's role in developing comprehensive designs for clients. Color, paper, and type selection will be emphasized. (F,Sp)

**ARTS252 Graphic Design Publications** 3

**Prerequisite:** Minimum 2.5 in ARTS251

An overview of publication design and the designer's role in the creative organization of typography, photography, and illustration. Emphasis on editorial concept, format, and design considerations. (F,Sp)

**ARTS253 Graphic Design Branding** 3

**Prerequisite:** Minimum 2.5 in ARTS251

An advanced collaborative learning course involving the design of promotional graphics, in two- and three-dimensions for corporate marketing purposes. The course will focus on effective prepress, innovative design and other media considerations. (F,Sp)

**ARTS257 Computer Prepress Production Techniques** 4

**Prerequisite:** Minimum 2.5 in (ARTS171 and ARTS252)

An overview of digital prepress techniques for computer-generated media, including color separation, output, and digital file preparation. Instruction includes computer system components, printing terminology and processes. The course emphasis is on professional knowledge and accuracy. (F,Sp)

**ARTS261 Topics in Design & Multimedia** 1-3

**Prerequisite:** Determined by Unit Section

A study of specific topics affecting the areas of graphic design and multimedia. This course is designed to expose students to the latest theories and practices in the area. Course format may include lectures, discussion, demonstration and hands-on experiences. (F,Sp)

**ARTS267 Interpretive Figure and Environment** 3

**Prerequisite:** Minimum 2.5 in (ARTS131 and ARTS153)

This is an advanced drawing course emphasizing the skill sets required to create observed or envisioned images and their environments. Imaginative treatments of figure and data will be pursued. Digital drawing, single and multiple figures (objects), and the process of image making will be addressed. (F,Sp)

**ARTS269 The Portfolio** 2

**Prerequisite:** Department Approval

Under advisor supervision, students will assemble their best work into a cohesive, relevant presentation for the purpose of securing career-oriented employment. Job search/market skills content, including creative resumes, letter-writing, and self-promotion will focus on matching individual presentations to specific career goals. ARTS269 is intended as the final program course. (F,Sp)

**ARTS270 Computer Graphics Independent Study** 3

**Prerequisite:** Department Approval

Individual pursuit of special projects not incorporated in regular class offerings. The student must submit a written application detailing his or her project to receive department approval. (F,Sp,Su)

**ARTS272 Printmaking Independent Study** 3

**Prerequisite:** Department Approval

Individual pursuit of special projects not incorporated in regular class offerings. The student must submit a written application detailing his or her projects to receive department approval. (F,Sp,Su)

**ARTS276 Art Independent Study** 3  
**Prerequisite:** Department Approval  
 Individual pursuit of special projects not incorporated in regular class offerings. The student must submit a written application detailing his or her project to receive department approval. (F,Sp,Su)

**ARTS281 Art Internship** 3  
**Prerequisite:** Department Approval  
 Students will gain pre-career experience by working in a professional environment under the supervision of a professional artist/designer. Regularly scheduled progress reports will be given and discussed with supervising faculty member. A typical internship will average 210 hours in a semester. (F,Sp,Su)

### ARWS - Art Seminars and Workshops

**ARWS120 Basic Drawing** 1  
**Prerequisite:** None  
 An introductory course using a variety of materials including pencil, charcoal, and ink. For non-majors. (F,Sp,Su)

**ARWS131 Intro to Computer Illustration** 1  
**Prerequisite:** None  
 A condensed, hands-on introduction to computer graphics, utilizing sophisticated, user-friendly artistic software. This workshop uses Corel Painter on Windows computers. (F,Sp,Su)

**ARWS132 Introduction to QuarkXPress** 1  
**Prerequisite:** None  
 A condensed, hands-on workshop designed to provide the student with a beginning knowledge of QuarkXpress software utilizing a Macintosh computer. Emphasis is on page layout software and hardware issues. (F,Sp)

**ARWS133 Introduction to Electronic Page Layout** 1  
**Prerequisite:** None  
 A condensed hands-on workshop designed to provide the student with a beginning understanding of page layout software utilizing a Macintosh computer. (F,Sp,Su)

**ARWS136 Intro to Adobe Illustrator** 1  
**Prerequisite:** None  
 A condensed, hands-on workshop designed to provide the student with a working knowledge of Adobe Illustrator software utilizing a Macintosh computer. Emphasis is on desktop publishing applications. (F,Sp,Su)

**ARWS137 Intro to Adobe Photoshop** 1  
**Prerequisite:** None  
 A condensed, hands-on workshop designed to provide the student with a working knowledge of Adobe Photoshop software. Emphasis is on desktop publishing applications. (F,Sp,Su)

**ARWS139 Multi-Media Web Graphics** 1  
**Prerequisite:** None  
 A hands-on course designed to provide the student with a working knowledge of multi-media and web page design. Emphasis is on web design issues for artistic, creative and/or visual learners using Macintosh computers and a variety of multi-media/web software. (F,Sp,Su)

**ARWS141 Watercolor Workshop** 1  
**Prerequisite:** None  
 A condensed learning experience introducing the student to the art of transparent watercolor. Emphasis is on the use of different papers, degrees of wetness, tools, and techniques. Students will progress to more complex problems as ability develops. (F,Sp,Su)

**ARWS145 Landscape Painting & Drawing** 1  
**Prerequisite:** None  
 Emphasis is on the use of color, perspective, and compositional strategies of the landscape. Most sessions spent in the field. All types of media are acceptable. (Su)

**ARWS201 Introduction to Macromedia Dreamweaver** 1  
**Prerequisite:** None  
**Recommended:** Windows 98/2000/XP experience  
 A condensed, hands-on workshop designed to provide the student with a beginning knowledge of Macromedia Dreamweaver software for web site design. (F,Sp)

**ARWS203 Introduction to Macromedia Flash** 1  
**Prerequisite:** None  
**Recommended:** Windows 98/2000/XP experience  
 A condensed, hands-on workshop designed to provide the student with a beginning knowledge of Macromedia Flash software for web site design. (F,Sp)

**ARWS221 Calligraphy I** 1  
**Prerequisite:** None  
 Introduces the student to the art of fine writing using italic pens. Emphasis on hand lettering, surveying different styles and scripts used in early manuscripts, and adaptation to modern use. (F,Sp)

**ARWS224 Cartooning Workshop** 1  
**Prerequisite:** None  
 Emphasizes simple but imaginative characterizations and dramatic exaggerated action in a variety of media including pencil, fiber tipped pen, and brush and ink. Previous drawing experience helpful. (F,Sp,Su)

### ASTR - Astronomy

**ASTR201 Introductory Astronomy** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6 and (Math Level 5 or MATH107 concurrently).  
 A survey course of astronomy. Topics include the celestial sphere, apparent motions, and orbital mechanics; the nature of light, spectroscopy and astronomical instrumentation; the Earth, the Moon, the Sun and the solar system; stellar nucleosynthesis, and stellar characteristics, distances, classification and evolution; and galaxies and cosmology. (F,Sp,Su)

### AUTB - Auto Body Collision Repair

**AUTB110 Non-Structural Repair** 3  
**Prerequisite:** Department Approval  
**Recommended:** Evidence of mechanical ability  
 This course introduces the student to elementary repairs that are completed in the collision repair industry. This allows the student to become familiar with the collision repair field environment. (F,Sp)

**AUTB112 Advanced Non-Structural Repair** 5  
**Prerequisite:** Minimum 2.0 in AUTB110  
**Recommended:** Evidence of mechanical ability  
 This course is for students who are familiar with the auto body repair environment and are ready to begin development of specific marketable repair skills. (F,Sp)

**AUTB114 Auto Body Welding and Cutting** 5  
**Prerequisite:** Department Approval  
**Recommended:** Evidence of mechanical ability  
 This course will present welding processes that will be the basis of many of the repair techniques in any advanced auto body course. MIG, TIG, oxyacetylene, resistance spot welding and plasma arc cutting are included. (F,Sp,Su)

**AUTB116 Auto Body Structural Repair** 5  
**Prerequisite:** Minimum 2.0 in (AUTB110 and AUTB114)  
 This course addresses the repair of the unibody and vehicle frames which often are damaged by major collision forces. The student will learn damage diagnosis and repair techniques including stress relief, heating, welding and corrosion protection. (F)

**AUTB118 Introduction to Refinishing** 5  
**Prerequisite:** Department Approval  
 The material in this course will form the basis for all automotive refinishing work. Surface preparation, material selection and the use of hand and power tools (including automotive spray guns) will be covered. (F,Sp,Su)

**AUTB120 Advanced Refinishing** 5  
**Prerequisite:** Minimum 2.0 in AUTB118  
 This course builds on skills developed in AUTB118. Overall refinishing, spot repairs and color matching with a variety of contemporary color-coat materials will be stressed. (F,Sp)

**AUTB122 Collision Repair Estimating** 3  
**Prerequisite:** Minimum 2.0 in (AUTB112 and AUTB116 and AUTB120)  
 This course prepares the student for analyzing collision damage, determining what parts are needed for repair, calculating labor allowances and figuring the total cost of repair. Collision repair manuals and computer programs will be used as sources of information. (F,Sp)

**AUTB124 Automotive Plastic Repair** 3  
**Prerequisite:** Minimum 2.0 in AUTB118  
 This course covers repair techniques and materials for repairing the wide variety of plastic materials used in the manufacturing of current vehicles. Refinishing repaired parts is also included. (Sp)

**AUTB160 Advanced Auto Body Repair and Painting** 4  
**Prerequisite:** Department Approval  
**Recommended:** Evidence of mechanical ability  
 This course covers the identification and safe operation of various equipment in auto body and refinishing facilities. Students will learn to diagnose problems, make necessary repairs and perform refinishing. Disposal of hazardous wastes will be taught in accordance with applicable laws. This course follows Auto Collision Repair (I-CAR) National standards. (F,Sp,Su)

**AUTB162 Collision Repair Internship** 3  
**Prerequisite:** Department Approval  
**Recommended:** Evidence of mechanical ability  
 Students are able to earn credits while employed as a technician in collision repair. The program coordinator must approve the training station and working conditions. (F,Sp,Su)

**AUTB163 Auto Body Independent Study** 1-4  
**Prerequisite:** Department Approval  
**Recommended:** Evidence of mechanical ability  
 Special research projects and/or individual readings are used to apply personal and professional experience to the academic area of interest. The completion of a written project report is required. (F,Sp,Su)

**AUTB204 Collision Repair Topics 4 Credits** 4  
**Prerequisite:** Minimum 2.0 in (AUTB114 and AUTB118)  
 A study of various specific topics affecting collision repair and auto body restoration. Course format will include lectures, discussion, demonstration, and hands-on experiences. Specific topics vary by semester; check the semester schedule book for topics to be offered. (F,Sp,Su)

**AUTB205 Collision Repair Topics 5 Credits** 5  
**Prerequisite:** Minimum 2.0 in (AUTB114 and AUTB118)  
 A study of various specific topics affecting collision repair and auto body restoration. Course format will include lectures, discussion, demonstration, and hands-on experiences. Specific topics vary by semester; check the semester schedule book for topics to be offered. (F,Sp,Su)

**AUTB206 Collision Repair Topics 6 Credits** 6  
**Prerequisite:** Minimum 2.0 in (AUTB114 and AUTB118)  
 A study of various specific topics affecting collision repair and auto body restoration. Course format will include lectures, discussion, demonstration and hands-on experiences. Specific topics vary by semester; check the semester schedule book for topics to be offered. (F,Sp,Su)

**AUTB210 Topics in Contemporary Collision Repair** .25-8  
**Prerequisite:** Department Approval  
 This course offers students the opportunity to learn new or advanced skills in contemporary collision repair issues. Specific content may vary with each offering and will be related to the Collision Repair Program and profession. (F,Sp,Su)

**AUTB230 Custom Graphics** 3  
**Prerequisite:** Minimum 2.0 in AUTB120  
 This course provides an introduction to automotive graphics, custom painting, pinstriping, lettering, and texturing as well as the equipment, materials, and tools needed to apply these effects. Graphic layout and design are also covered. Hands-on projects include flames, marbleizing, murals and other "trick" painting. (F,Sp)

**AUTB240 Auto Body Restoration** 4  
**Prerequisite:** Minimum 2.0 in (AUTB114 and AUTB118)  
 Students will learn skills, equipment use, and techniques to perform auto body restoration. This will include panel evaluation, preparation, and preservation, as well as fabrication, shrinking, stretching, and hammer welding techniques. Students will also learn to fill, sand, and prime panels for painting. (F,Sp,Su)

**AUTO - Automotive**

**AUTO100 Automotive Service I** 3  
**Prerequisite:** Reading Level 3 and Writing Level 2 and Math Level 3  
 This course is intended to provide the student with an extensive orientation to an automotive repair facility while developing tool and equipment usage skills needed to advance in the automotive repair field. (F,Sp,Su)

1-4	<p><b>AUTO110 Automotive Electrical Theory</b> 5</p> <p><b>Prerequisite:</b> Minimum 2.0 in AUTO100 or concurrently</p> <p>This course is designed for the typical automobile owner who wants to gain a better understanding of the automobile and be able to make some basic repairs. It will encompass an overview of servicing needs and factors related to vehicle safety. Students will be able to inspect their vehicles, make informed decisions on purchasing vehicle products and services, and identify service items the owner might do themselves. (F,Sp)</p>	
4	<p><b>AUTO120 Automotive Drive Train</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in AUTO100 or concurrently</p> <p>This course covers manual transmissions/transaxles, differentials and four-wheel drive components. Students will learn to diagnose, disassemble, inspect and reassemble these components according to National Automotive Technicians Education Foundation (NATEF) standards. (F,Sp)</p>	
5	<p><b>AUTO121 Automatic Transmissions I</b> 5</p> <p><b>Prerequisite:</b> Minimum 2.0 in AUTO110 or concurrently</p> <p>Course covers hydraulic and mechanical principles including diagnosis, removal, disassembly, inspection, and repair of automatic transmissions/transaxles according to National Automotive Technicians Education Foundation (NATEF) standards. (F,Sp)</p>	
6	<p><b>AUTO122 Automatic Transmissions II</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in AUTO121</p> <p>This course expands on knowledge obtained in AUTO121. Topics include diagnosis, disassembly, inspection, and reassembly of automatic transmissions/transaxles. Students will gain knowledge of three additional transmissions/transaxles in this class. All aspects of this course follow National Automotive Technicians Education Foundation (NATEF) standards. (F,Sp)</p>	
25-8	<p><b>AUTO130 Automotive Engines I</b> 5</p> <p><b>Prerequisite:</b> Minimum 2.0 in AUTO100 or concurrently</p> <p>This course covers the disassembly, inspection (using specialized tools and measuring equipment), repair, and reassembly of an automotive engine according to engine manufacturer standards and National Automotive Technicians Education Foundation (NATEF) standards. (F,Sp)</p>	
3	<p><b>AUTO131 Automotive Engines II</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in AUTO130 and Reading Level 3 and Writing Level 2 and Math Level 3</p> <p>This course covers the disassembly, inspection (using specialized tools and measuring equipment), repair and reassembly of an automotive engine. Students will be allowed to work on their own engines. (F,Sp,Su)</p>	
4	<p><b>AUTO133 Small Engine Repair</b> 3</p> <p><b>Prerequisite:</b> None</p> <p>This course uses the theory of operation for "small engines" (lawn mowers, outboard motors, chain saws, and other engines up to 18 horsepower) to diagnose problems in operation, repair or overhaul defective components, and make engines operate according to manufacturer standards. (F,Sp)</p>	
3	<p><b>AUTO134 Light Duty Diesel Engines</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in AUTO100 or concurrently</p> <p>This course covers the operation of a light duty diesel engine, diagnosis and repair of mechanical and electronic fuel injection systems, air induction and exhaust systems diagnosis and repair, and general engine diagnosis according to the engine manufacturer standards. (F,Sp)</p>	
	<p><b>AUTO140 Automotive Brakes</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in AUTO110 or concurrently</p> <p>This course covers the diagnosis, service and repair of disc and drum standard anti-lock brake system problems according to National Automotive Technicians Education Foundation (NATEF) and manufacturer standards. (F,Sp,Su)</p>	
	<p><b>AUTO150 Automotive Steering &amp; Suspension</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in AUTO100 or concurrently</p> <p>This course covers automotive front end alignments and how steering and suspension systems work. Students will diagnose, repair and align steering and suspension systems according to National Automotive Technicians Education Foundation (NATEF) standards. (F,Sp)</p>	
	<p><b>AUTO160 Automotive Heating &amp; Air Conditioning</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in (AUTO110 or HERT101)</p> <p>Course covers the theory, diagnosis, recovery and recycling of Freon and the repair of automotive air conditioning systems according to National Automotive Technicians Education Foundation (NATEF) standards. (F,Sp,Su)</p>	
	<p><b>AUTO190 Automotive Special Topics</b> .25-8</p> <p><b>Prerequisite:</b> Determined by Unit Section</p> <p>The Automotive Special Topics series will feature topics related to the automotive industry. The lectures will allow participants to explore a wide variety of topics that will range from State of Michigan Recertification and Alternative Fuels to Advanced Drivability Diagnosis. Specific topics vary each semester; check the semester schedule book for topics to be offered. (F,Sp,Su)</p>	
	<p><b>AUTO191 Automotive Workshop Series</b> .25</p> <p><b>Prerequisite:</b> None</p> <p>The Automotive Workshop Series will feature topics related to the automotive industry. The workshop format allows for hands-on participation in the particular topic area. Participants can explore topics from ABS Diagnosis to 4-Gas Analysis. Specific topics vary each semester; check the semester schedule book for topics to be offered. (F,Sp,Su)</p>	
	<p><b>AUTO192 Automotive Workshop Series</b> .5</p> <p><b>Prerequisite:</b> None</p> <p>The Automotive Workshop Series will feature topics related to the automotive industry. The workshop format allows for hands-on participation on the particular topic area. Participants can explore topics from ABS Diagnosis to 4-Gas Analysis. Topics will vary by the semester; check the semester schedule book for topics to be covered. (F,Sp,Su)</p>	
	<p><b>AUTO210 Advanced Auto Electrical/Electronics</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in AUTO110 and Reading Level 3 and Writing Level 2 and Math Level 3</p> <p>This course expands on knowledge obtained in AUTO110. Topics include advanced electrical/electronics diagnosis, introduction to body control computers, advanced lighting systems and electronic instrumentation, electronic chassis control and accessory systems, and passive restraint systems. (F,Sp)</p>	
	<p><b>AUTO215 Engine Performance &amp; Tune-Up</b> 5</p> <p><b>Prerequisite:</b> Minimum 2.0 in AUTO130</p> <p>Students will obtain knowledge on ignition, fuel and emission systems, and will be introduced to computer controls. Topics include the diagnosis, removal, inspection, repair and reassembly of these systems based on National Automotive Technicians Education Foundation (NATEF) standards. (F,Sp)</p>	

**AUTO225 Automotive Computers 5**

**Prerequisite:** Minimum 2.0 in AUTO215

This course covers automotive engine computer systems, ignition systems, emission systems, exhaust gas treatment systems, air induction, exhaust gas recirculation and early fuel evaporation systems. Students will diagnose, remove, inspect, repair and replace these systems according to National Association for Technical Education Foundation (NATEF) standards. (F,Sp)

**AUTO235 Advanced Computer/ABS Brake Systems 3**

**Prerequisite:** Minimum 2.0 in (AUTO140 and AUTO225)

This course covers automotive anti-lock braking systems and advanced computer systems, including the theory and how these systems function. Students will learn to diagnose, disassemble, and repair these systems according to the standards of the National Automotive Technician Education Foundation. (F,Sp)

**AUTO260 Introduction to Alternative Fuels 2**

**Prerequisite:** Minimum 2.0 in (AUTO130 and AUTO225)

Students will use various sources in the alternative fueled vehicle industry to learn what alternative fuels are available. Students will closely examine the technologies involved when using compressed natural gas (CNG) as a fuel for vehicles. (F,Sp)

**AUTO261 Alternative Fuels - CNG 3**

**Prerequisite:** Minimum 2.0 in AUTO260

This course is designed to help prepare the student to enter the auto repair and service industry. It is an intensive study covering the use of compressed natural gas (CNG) on automobiles and light trucks. Theory, application, installation, diagnosis and safety regulations pertaining to the use of CNG will be covered. (F,Sp)

**AUTO262 Alternative Fuels-Propane (LPG) 3**

**Prerequisite:** Minimum 2.0 in AUTO260

This course is an intensive study covering the use of propane as fuel for automobiles and light trucks. Theory, application, installation, diagnosis and safety regulations applicable to LPG vehicles will be covered. (F,Sp)

**AUTO270 Race Engine Machining I 5**

**Prerequisite:** Minimum 2.0 in AUTO130 and Reading Level 3 and Writing Level 2 and Math Level 3

**Recommended:** Minimum 2.0 in METM110 (previously PMMT105)  
This course covers the disassembly, inspection, measurement and recording of specifications (using specialized tools and measuring equipment), and machining of an automotive high performance engine to racing industry accepted engine specifications. (F,Sp)

**AUTO271 Race Engine Machining II 5**

**Prerequisite:** Minimum 2.0 in AUTO270 and Reading Level 3 and Writing Level 2 and Math Level 3

**Recommended:** Minimum 2.0 in METM110 (previously PMMT105)  
This course covers the disassembly, inspection, measurement, and recording of specifications (using specialized tools and measuring equipment), and machining of an automotive high performance engine to racing industry accepted engine specifications. (F,Sp)

**AUTO277 Race Engine Assembly 5**

**Prerequisite:** Minimum 2.0 in AUTO271 and Reading Level 3 and Writing Level 2 and Math Level 3

This course covers the inspection, measurement and recording of specifications (using specialized tools and measuring equipment), and proper assembly of an automotive high performance engine to racing industry accepted engine specifications. (F,Sp)

**AUTO279 Motorsports Dynamometer 5**

**Prerequisite:** Minimum 2.0 in AUTO277 and Reading Level 3 and Writing Level 2 and Math Level 3

**Recommended:** Minimum 2.0 in AUTO215

This course provides an introduction to the purpose, operation, and safety requirements for using an engine dynamometer as an evaluation tool. Students will use specialized equipment, to racing industry accepted specifications, to generate and analyze dynamometer data. (F,Sp)

**AUTO280 Automotive Service Laboratory 4-6**

**Prerequisite:** Department Approval

This laboratory course is designed to provide work experience and develop trade-entry skills in general and light-line repair. (F,Sp,Su)

**AUTO285 Automotive Internship 3**

**Prerequisite:** Department Approval

Students are able to earn credits while employed as a technician in auto mechanics or auto body. The program coordinator must approve the training station and working conditions. (F,Sp,Su)

**AUTO286 Automotive Independent Study 1-4**

**Prerequisite:** Department Approval

Special research projects and/or individual readings are used to apply personal and professional experience to the academic area of interest. A presentation or written report is required at the end of the project. (F,Sp,Su)

**AVAF - Aviation Airframe Maintenance**

**AVAF125 Aircraft Systems I 2**

**Prerequisite:** Department Approval

The study of fuel management, transfer, defueling and fuel pump systems. The course covers the procedures used to inspect, check, service, troubleshoot and repair aircraft fuel systems and fuel system components. Course material emphasizes fluid quantity indicating, fluid pressure and warning systems. (Sp)

**AVAF126 Aircraft Systems II 6**

**Prerequisite:** Department Approval

The study, analysis and repair of aircraft landing gear and brake systems and their related warning systems. Includes the study, inspection, servicing and repair of aircraft hydraulic and pneumatic systems and their related components. (Sp)

**AVAF127 Aircraft Systems III 3**

**Prerequisite:** Department Approval

Course covers the inspection, checking, troubleshooting, servicing and repair of aircraft heating, cooling, air-conditioning, pressurization, oxygen, ice and rain control and fire protection systems. (Su)

**AVAF130 Avionics Airframe Applications 2**

**Prerequisite:** Department Approval

This course covers airframe related subjects necessary for an avionics technician. Topics include aircraft structure principles, installation procedures, material and fastener identification and antenna installation procedures. Students will work with sheet metal and composite structures. (F)



5	<b>AVAF134 Aircraft Instruments</b>	2
riting	<b>Prerequisite:</b> Department Approval	
	Course covers inspection, checking, servicing, troubleshooting, repair of electronic flight instrument systems, both mechanical and electrical speed, altitude, temperature, pressure and flow instrument systems. Also, special removal and installation techniques applicable to aircraft instruments are included. (Su)	
and alu- stry data.		
4-6	<b>AVAF208 Aircraft Structures I</b>	4
d de-	<b>Prerequisite:</b> Department Approval	
	This course introduces the procedures for identification, inspection, testing and repairing of wood, fabric-covered and sheet metal aircraft. The installation and removal of conventional rivets, forming of aircraft sheet metal, installation of special rivets and fasteners, and an introduction to applying finishing materials will also be covered. (Sp)	
3		
auto e the	<b>AVAF209 Aircraft Structures II</b>	4
	<b>Prerequisite:</b> Department Approval	
	Covers assembly and rigging of fixed wing and rotary wing aircraft control structures. Provides practical application in removal, installation and adjustment of flight controls by balancing, cable tension and motion studies. Aircraft inspection procedures to insure conformity with flight safety standards will be included. (F)	
1-4		
apply rest. ject.	<b>AVAF210 Aircraft Structures III</b>	4
	<b>Prerequisite:</b> Department Approval	
	An advanced course covering inspection, repair, layout, bending and assembly of aircraft sheet metal. Inspection, testing and repair of fiberglass, plastics, honeycomb, composite and laminated structures are practiced. Installation and removal of special fasteners for bonded and composite structures and servicing of aircraft windows, doors and interior furnishings is included. (F,Sp)	
2		
sys- vice, npo- res-	<b>AVAF211 Aircraft Electrical I</b>	4
	<b>Prerequisite:</b> Department Approval	
	An intermediate aviation electrical course concentrating on theory, calculation and measurement of A.C. electrical systems. Includes reading and interpreting aircraft electrical circuit diagrams, including those with solid-state devices and logic functions. The installation, checking and servicing of airframe and engine wiring, controls, switches, indicators and protective devices are also covered. (Sp,Su)	
6		
ems ser- their	<b>AVAF212 Aircraft Electrical II</b>	4
	<b>Prerequisite:</b> Department Approval	
	Repair of airframe and engine electrical system components with an emphasis on the inspection, checking, servicing and repair of alternating and direct current systems. General troubleshooting techniques are practiced with special emphasis on A.C. and D.C. electrical systems. (Su)	
3		
and oxy-		
2	<b>AVAF246 National Airframe Certif Procedures</b>	1
	<b>Prerequisite:</b> Department Approval	
	Study of the Federal Aviation Regulations pertaining to national certification as a licensed airframe mechanic. Includes testing in all required areas of study as a Prerequisite: to receiving authorization to take the general and airframe national certification test administered by representatives of the Federal Aviation Administration. (F)	

**AVEL - Aviation Electronics**

<b>AVEL150 Avionics Test Equipment</b>	2
<b>Prerequisite:</b> None	
<b>Co-requisite Course(s):</b> AVEL151	
Covers the operational characteristics and operation of basic and specialized test equipment found in the aviation maintenance industry. Students will develop an understanding of maintenance manual organization for electronic test equipment and specialized aviation electronic equipment. Equipment covered includes multimeters, oscilloscopes, power supplies, multifunction test generators, wattmeters, time domain reflectometers and spectrum analyzers. (Sp)	
<b>AVEL151 Avionics Test Equipment Lab</b>	1
<b>Prerequisite:</b> None	
<b>Co-requisite Course(s):</b> AVEL150	
Subjects covered in AVEL150 will be put to practical use in this laboratory. The student builds and calibrates his/her own digital volt ohm meter. The student will construct aircraft wiring harnesses and complete soldering exercises. Common electronic and specialized avionics test equipment is used in the lab. (Sp)	
<b>AVEL190 Receiver Troubleshooting</b>	2
<b>Prerequisite:</b> None	
<b>Co-requisite Course(s):</b> AVEL191	
Familiarization with basic superheterodyne receiver principles and operation using block diagrams and component level theory. Various logical troubleshooting techniques are discussed. (Su)	
<b>AVEL191 Receiver Troubleshooting Lab</b>	1
<b>Prerequisite:</b> None	
<b>Co-requisite Course(s):</b> AVEL190	
Familiarization with basic superheterodyne receiver principles and operation. Various logical troubleshooting techniques will be put to practical use in the laboratory. Students construct, align and troubleshoot an AM superheterodyne receiver. (Su)	
<b>AVEL200 Flight Line Testing</b>	2
<b>Prerequisite:</b> None	
A study of the avionics systems found aboard modern aircraft focusing on the flight line testing of such systems as VHF communications, VHF navigation, ADF, radar, autopilots and others. (F,Su)	
<b>AVEL201 Flight Line Testing Lab</b>	1
<b>Prerequisite:</b> None	
A practical study of the electronics systems found aboard modern aircraft, focusing on the flight line testing of such systems as VHF communications, VHF navigation, ADF, radar, autopilots and others. (F,Su)	
<b>AVEL203 Avionics Systems Interconnect I</b>	3
<b>Prerequisite:</b> Reading Level 5 and Writing Level 2 and Math Level 5 and Department Approval	
This course is the study and practical application of aircraft wiring and avionic system interconnection procedures. Topics include aircraft structural considerations, wiring harness construction, schematic design and reading, cockpit instrument panel design, and FAA regulatory considerations in installations. (F,Sp)	

**AVEL211 Avionics Systems Interconnect II 3**

**Prerequisite:** Minimum 2.0 in AVEL203 and Reading Level 5 and Writing Level 2 and Math Level 5

Introduction to databus communications in avionics systems. Topics include databus architectures, topologies and protocols, study of industry standard busses including RS 232, ARINC 429 & 629, MIL-STD-1553, CSDB, and AFDX (Ethernet) as well as others. Students will construct, test, and communicate with a basic avionics databus in laboratory projects. (F,Sp)

**AVEL220 Avionics Systems I 3**

**Prerequisite:** None  
**Co-requisite Course(s):** AVEL221

A study of the communications, navigation and other systems found in modern aircraft, focusing on component level repair and testing to manufacturer's specifications. Students will have the opportunity to obtain factory certifications for the repair of various systems. (F)

**AVEL221 Avionics Systems I Lab 2**

**Prerequisite:** None  
**Co-requisite Course(s):** AVEL220

A hands-on study of the communications, navigation and other systems found in modern aircraft, focusing on component level repair and testing to manufacturer's specifications. (F)

**AVEL223 Adv Avionics Training & Troubleshooting 5**

**Prerequisite:** Reading Level 5 and Writing Level 2 and Math Level 5 and Department Approval

Advanced electronics applied to aviation. FCC rules and regulations are studied. Elements 1 and 3 of the FCC GROL examination are presented, preparing the student for actual examination (offered on-site). Component level troubleshooting is studied. Students assemble, align, and troubleshoot an amplitude modulated superheterodyne receiver in a Repair Station environment. (F,Sp)

**AVEL225 FCC License Preparation 1**

**Prerequisite:** None  
Federal Communication Commission rules and regulations are discussed as they pertain to the avionics technician. Elements 1 and 3 of the FCC General Radiotelephone Operator's License examination are presented to prepare the student for successful completion of the actual examination. (F)

**AVEL226 FAA Rules/Regs Avionics Techs 1**

**Prerequisite:** None  
This course covers various Federal Aviation Administration rules and regulations as they pertain to avionics shop operations and the avionics technician. (F)

**AVEL227 Advanced Avionics Systems 2**

**Prerequisite:** Minimum 2.0 in AVEL200 and Reading Level 5 and Writing Level 2 and Math Level 5 and Department Approval

A study of state-of-technology Avionics systems currently in-service or development for modern day aircraft, such as Enhanced Ground Proximity Warning, advanced Weather Detection (active and passive), and Reduced Vertical Separation Minimum-compliant systems and subsystems. Field demonstrations on site and at industry Avionics operations will be conducted. (F,Sp)

**AVEL230 Avionics Systems II 3**

**Prerequisite:** Minimum 2.0 in (AVEL190 and AVEL200)  
**Co-requisite Course(s):** AVEL231

A study of navigation, microwave pulse equipment and other systems found in modern aircraft, focusing on component level repair and testing to manufacturers' specifications. Students will have the opportunity to obtain factory certification of the repair of various systems. (Sp)

**AVEL231 Avionics Systems II Lab 2**

**Prerequisite:** Minimum 2.0 in AVEL201  
**Co-requisite Course(s):** AVEL230

A hands-on study of navigation, microwave pulse equipment and other systems found in modern aircraft, focusing on component level repair and testing to manufacturers' specifications. (Sp)

**AVEL297 Avionics Internship 2**

**Prerequisite:** Minimum 2.0 in AVEL151  
**Restriction:** Avionics and Avionics Installation Majors  
Minimum 128 hours per semester as an aviation electronics intern. Part-time occupational internship in avionics technology. The internships will be at certified repair stations as established by the intern coordinator. (Su)

**AVFT - Aviation Flight Training**

**AVFT201 Flight Training I 7.5**

**Prerequisite:** Reading Level 5 and Department Approval  
Provides in-flight and ground training in a single-engine, non-complex aircraft culminating in aeronautical knowledge, experience and skill in accordance with the Federal Aviation Administration Private Pilot Practical Test standards. (F,Sp)

**AVFT202 Flight Training II 5**

**Prerequisite:** Reading Level 5 and Department Approval  
Provides in-flight and ground training in a single-engine, non-complex airplane; developing the student's instrument, night and cross-country flying skills. (F,Sp,Su)

**AVFT203 Flight Training III 5.5**

**Prerequisite:** Reading Level 5 and Department Approval  
Provides instruction in a complex, single-engine airplane; developing the student's skill at Instrument Flight Rules (IFR) navigation and Air Traffic Control (ATC) procedures in en route and terminal environments. (F,Sp,Su)

**AVFT204 Flight Training IV 5**

**Prerequisite:** Reading Level 5 and Department Approval  
Provides in-flight and ground instruction in a complex airplane; developing student skills in Instrument Flight Rules (IFR) navigation and Air Traffic Control (ATC) procedures in en route and terminal environments. Students will develop skills at performing commercial proficiency flight maneuvers. Upon completion of this course, the student will take the practical test for commercial/instrument pilot airplane. (F,Sp,Su)

**AVFT205 CFI Flight Training 3.5**

**Prerequisite:** Reading Level 5 and Department Approval  
Provides in-flight and ground training in common primary training and complex airplanes. The student will develop instructional skills necessary to train pilots for certification in accordance with Federal Aviation Regulations. The student will take his/her practical test for Certified Flight Instructor Airplane upon completion. (F,Sp,Su)

**AVFT206 Instrument Instructor Flight Training** 2.5

**Prerequisite:** Reading Level 5 and Department Approval  
Provides in-flight and ground training in a non-complex aircraft. The student will develop instructional skills necessary to train pilots for the instrument rating. The student will take the practical test for the instrument flight instructor rating airplane upon completion of this course. (F,Sp,Su)

**AVFT207 Multi-Engine Flight Training** 1.5

**Prerequisite:** Reading Level 5 and Department Approval  
Provides in-flight and ground instruction in a multi-engine airplane. The student will take the multi-engine practical test upon completion of this course. (F,Sp,Su)

**AVFT208 Multi-Engine Instructor Flight Training** 1.5

**Prerequisite:** Reading Level 5 and Department Approval  
Provides in-flight and ground instruction in a multi-engine airplane. The student will develop instructional skills necessary to train students for the multi-engine practical test. The student will take the multi-engine instructor practical test upon completion of this course. (F,Sp,Su)

**AVFT220 Aviation Law** 3

**Prerequisite:** None  
**Recommended:** Reading Level 5 and completion of a Core Writing course

In this course we will examine various aspects of the law and how that law is applied in an aviation environment. This will include a review of tort, insurance, contract, and administrative law as well as government liability, international treaties and national security laws as they are applied in the aviation industry. (F)

**AVGM - Aviation General Maintenance**

**AVGM111 Aviation General I** 4

**Prerequisite:** Department Approval  
This course is designed to develop the skills and knowledge required to weigh an aircraft and record the appropriate data. It involves mathematical and basic physics principles related to aviation, including aerodynamics, theory of flight, aircraft structural design and simple machines. (F,Sp)

**AVGM112 Aviation General II** 6

**Prerequisite:** Department Approval  
Introduces the Federal Aviation Regulations involving the mechanic's privileges, limitations and related aviation operations. Includes the selection and use of aviation publications, maintenance forms, records, reports, aircraft drawings, graphs and charts, symbols, blueprints and system schematics. Also focuses on aircraft ground operations and servicing of related aircraft systems. (F,Sp)

**AVGM113 Aviation General III** 4

**Prerequisite:** Department Approval  
This initial aviation electrical course offers instruction in basic electrical theory and its aviation application. It includes the calculation and measurement of voltage, current resistance, continuity and power; and the theory, inspection and servicing of aircraft lead-acid and ni-cad batteries; and the construction of a volt-ohm meter. (F,Sp)

**AVGM114 Materials and Processes** 5

**Prerequisite:** Department Approval  
This course covers identification and selection of the appropriate aviation hardware, hand tools, cleaning materials, fluid lines and nondestructive testing methods. Performance of nondestructive testing, precision measurements, aircraft cleaning and corrosion control, fabrication, installation and testing of fluid lines is included. (F,Sp)

**AVGS - Aviation Ground School**

**AVGS101 Private Pilot Ground School** 4

**Prerequisite:** Reading Level 5  
**Recommended:** SDEV124  
This course prepares the student for successful completion of the Federal Aviation Administration private pilot written examination. The student will learn basic aerodynamic theory, principles of aircraft/powerplant operation and performance, Federal Aviation Regulations, air traffic control procedures, meteorology, navigation and flight physiology. (F,Sp,Su)

**AVGS121 Aviation Meteorology** 4

**Prerequisite:** None  
**Recommended:** SDEV124  
This course focuses on the application of meteorological theory to the practical aspects of flight planning. The student will understand basic concepts of weather theory, obtain weather briefings by using a personal computer, interpret domestic and international weather charts, forecasts and reports,(ICAO) and make appropriate "go/no go" decisions. (Sp)

**AVGS211 Instrument Pilot Ground School** 4

**Prerequisite:** Reading Level 5  
**Recommended:** AVGS121 and SDEV124  
This course prepares the student for successful completion of the FAA instrument rating written examination. The student will learn operation and interpretation of the flight instruments: the use of en route, approach, SID and STAR charts for navigation; air traffic control procedures and meteorology as it applies to the instrument pilot. (F,Sp,Su)

**AVGS221 Commercial Pilot Ground School** 4

**Prerequisite:** Reading Level 5  
**Recommended:** AVGS121 and SDEV124  
This course prepares the student for the successful completion of the FAA commercial pilot written examination. The student will develop knowledge of aerodynamics, high performance aircraft systems, aircraft performance, Federal Aviation Regulations, navigation and flight planning, and meteorology as it applies to commercial pilots. (F)

**AVGS222 Flight Instructor Ground School** 4

**Prerequisite:** Reading Level 5  
**Recommended:** AVGS121  
This course will prepare the student for the successful completion of the FAA Fundamentals of Instructing and the Flight Instructor-Airplane and Advanced Ground Instructor written exams. The student will develop a flight training syllabus with lesson plans for use in training pilots. (Sp)

**AVPP - Aviation Powerplant Maintenance**

**AVPP241 Reciprocating Engine** 8

**Prerequisite:** Department Approval  
Presents the theory and practices used in the removal, inspection, overhaul, service, repair and installation of reciprocating engines. This course also studies the inspection, service, repair and troubleshooting of reciprocating engine lubrication systems. (F)

**AVPP251 Reciprocating Engine Systems** 2

**Prerequisite:** Department Approval  
This course covers the inspection, servicing, troubleshooting and repair of reciprocating engine cooling and exhaust systems. In addition, the inspection requirements necessary to meet established conformity and standards of airworthiness are studied; and reciprocating engine operations and adjustments are conducted using FAA and maintenance publication procedures. (F,Sp)

**AVPP253 Reciprocating Ignition Systems** 5  
**Prerequisite:** Department Approval  
 This course covers the operation, analysis, inspection, service and repair of reciprocating engine ignition systems and components. This includes magnetos, ignition harnesses, spark plugs and starter systems. (F,Sp)

**AVPP255 Reciprocating Induction Systems** 4  
**Prerequisite:** Department Approval  
 Study and analysis of reciprocating engine fuel systems and components. Includes inspection, checking, servicing, troubleshooting and repair of carburetors, water injection systems, heat exchangers, superchargers, intake and induction manifolds and other engine fuel system components. Also includes carburetor overhaul procedures. (F,Sp)

**AVPP257 Aircraft Propeller Systems** 4  
**Prerequisite:** Department Approval  
 Covers the study, analysis, service and repair of aircraft propellers, systems and controls. Includes propeller synchronizing, ice control, lubrication, balancing, pitch control, repair procedures and removal, and installation of both fixed-pitch and variable-pitch propellers. (F,Sp)

**AVPP259 Turbine Engine I** 4  
**Prerequisite:** Department Approval  
 Covers the theory of operation and design of the varied turbine engine and turbine-driven auxiliary power unit types, including the induction and cooling systems of each. (F,Sp)

**AVPP261 Turbine Engine II** 4  
**Prerequisite:** Department Approval  
 Covers inspection, checking, servicing, repair, removal, installation and troubleshooting of turbine engines and systems. Detailed study of the lubrication system and inspection procedures to insure conformity with FAA specifications and standards are included. (Sp,Su)

**AVPP263 Turbine Engine Systems** 2  
**Prerequisite:** Department Approval  
 This course is a detailed study of turbine-engine ignition, pneumatic and electric starters, exhaust and thrust reverser, fire detection and protection, fuel metering and electronic fuel control systems and components. Study also includes inspection, checking, servicing, repair and troubleshooting procedures. (Su)

**AVPP265 Powerplant Instruments** 2  
**Prerequisite:** Department Approval  
 This course covers the inspection and repair of turbine and reciprocating engine instruments. Troubleshooting of mechanical/electrical fluid rate-of-flow, temperature, pressure, RPM and airflow indicators will be included. (Sp,Su)

**AVPP267 National Powerplant Certif Procedures** 1  
**Prerequisite:** Department Approval  
 Study of the Federal Aviation Regulations pertaining to national certification as a licensed powerplant mechanic. Includes testing in all required areas of study as a Prerequisite: to receiving authorization to take the powerplant national certification tests administered by representatives of the Federal Aviation Administration. (Sp,Su)

**AVST - Aviation Simulator Training**

**AVST211 Flight Simulator I** 1  
**Prerequisite:** Reading Level 5 and Department Approval  
 Provides flight simulator and ground training to develop student's basic attitude instrument flying skills. Course is intended to be taken concurrently with AVFT201. (F,Sp,Su)

**AVST212 Flight Simulator II** 1  
**Prerequisite:** Reading Level 5 and Department Approval  
 Provides flight simulator and ground training to develop student's skills in IFR navigation and ATC procedures in terminal environment. This course is intended to be taken concurrently with AVFT202. (F,Sp,Su)

**AVST213 Flight Simulator III** 1  
**Prerequisite:** Reading Level 5 and Department Approval  
 Provides flight simulator and ground training to further develop the student's skills at IFR navigation and ATC procedures in en route and terminal environments. This course is intended to be taken concurrently with AVFT203. (F,Sp,Su)

**AVST214 Flight Simulator IV** 1  
**Prerequisite:** Reading Level 5 and Department Approval  
 Provides flight simulator and ground training to develop student skills to the level of instrument rating practical test standards. Student will perform simulated flights in en route and terminal environments, including compliance with emergency procedures. This course is intended to be taken concurrently with AVFT204. (F,Sp,Su)

**AVST215 Multi-Engine Flight Simulator** 1  
**Prerequisite:** Reading Level 5 and Department Approval  
 Provides flight simulator training culminating in aeronautical knowledge and maneuvering skills in support of advanced visual and instrument flight training in multi-engine aircraft. Intended for the Flightmatic multi-engine simulator. (F,Sp,Su)

**AVST216 Airline Transport Pilot Prep** 1  
**Prerequisite:** Reading Level 5 and Department Approval  
**Recommended:** AVFT207  
 This course prepares students for initial flight training at a regional or major airline and is centered on the use of standard industry procedures. Upon successful completion of this course and completion of all of the experience requirements required by federal aviation regulations, students will be eligible to take the Airline Transport Pilot check ride. (F,Sp,Su)

**BIOL - Biology**

**BIOL120 Environmental Science** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
 Students will develop an ecological knowledge base to allow them to understand how human actions impact the environment. They will develop applied analytical skills through laboratories, fieldwork, simulations and a discussion of contemporary issues. They will investigate and evaluate basic ecological and environmental issues. (F,Sp,Su)

**BIOL121 Biological Foundations for Physiology** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6 and Math Level 4  
**Recommended:** CHEM120 or High School Chemistry  
 Topics include atomic structure, chemical bonding, organic molecules, biological molecules, enzymes, metabolism, cell structure and function, passage of materials across membranes, harvesting energy, mitosis, meiosis, and the relationship between DNA, RNA, and protein synthesis. Designed for students preparing for health careers. Recommended Prerequisite: for BIOL202. (F,Sp,Su)

- BIOL127 Cell Biology** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6 and Math Level 4  
**Recommended:** CHEM120 or High School Chemistry  
 Lecture topics include chemistry of carbohydrates, lipids and proteins; structure and function of prokaryotic and eukaryotic cells; biochemistry of respiration and photosynthesis; and genetics and the regulation of gene expression. Laboratory stresses techniques of cell and molecular biology as well as genetics. (F,Sp,Su)
- BIOL128 Organismal Biology** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6 and Math Level 4  
 This course examines adaptations of organisms to changing environments. Major emphasis is on physiological adaptations, natural selection, and ecology. Lab topics include a survey of the kingdoms, behavior experiments, and field studies. (F,Sp,Su)
- BIOL145 Introductory Anatomy and Physiology** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
 An introductory course in human anatomy and physiology which combines lecture and laboratory experiences to provide a basic understanding of the structure and function of body systems. Designed for vocational programs, that include emergency medical technicians, massage therapists, medical technicians, and medical transcriptionists, as well as for non-science majors. (F,Sp,Su)
- BIOL201 Human Anatomy** 4  
**Prerequisite:** (Minimum 2.0 in BIOL121 or BIOL127 or CHEM120 or passing score on Health Biology Proficiency Test) and Reading Level 5 and Writing Level 6 and Math Level 4  
 A study of the anatomy of the human body that includes the structures of the skeletal, muscular, nervous, sensory, circulatory, respiratory, digestive, excretory, endocrine, and reproductive systems. Designed for students preparing for health occupations such as nursing, radiologic technology, and dental hygiene. (F,Sp,Su)
- BIOL202 Human Physiology** 4  
**Prerequisite:** Minimum 2.0 in BIOL201 and Reading Level 5 and Writing Level 6 and Math Level 5  
 The physiology, regulation, biochemistry, and integration of various organ systems in the human body are presented. Emphasis is on normal function, but appropriate clinical aspects may be discussed. Laboratory topics complement the lecture. Designed for students preparing for health occupations such as nursing, radiologic technology and dental hygiene. (F,Sp,Su)
- BIOL203 Microbiology** 3  
**Prerequisite:** (Minimum 2.0 in BIOL121 or BIOL127 or CHEM120 or passing score on Health Biology Proficiency Test) and Reading Level 5 and Writing Level 6 and Math Level 4  
 An introduction to bacteria, viruses, and other microorganisms as they relate to human health. Emphasis on bacterial and viral structure, life cycles, and genetics; antimicrobial therapy; immunology and host defenses; epidemiology, treatment, and prevention of infectious human diseases. Designed for health career and other science students. (F,Sp,Su)
- BIOL204 Microbiology Laboratory** 1  
**Prerequisite:** Minimum 2.0 in BIOL203 or concurrently  
 Basic laboratory principles of microbiology for allied health students. Emphasis on microscopy, aseptic cultivation of microorganisms, differential staining, assays of antimicrobial agents, and diagnostic laboratory techniques. Students will identify unknown bacterial species and examine medically important parasites. (F,Sp,Su)
- BIOL210 Natural Resource Conservation** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6 and Math Level 4  
 This course examines the renewable natural resources and the policies which govern their use in Michigan. Lecture topics include ecology, water, wildlife, forests, and soils. Laboratory investigations include measurement techniques, environmental problem solving and field studies. (F,Sp,Su)
- BIOL229 Nature Study for Educators** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6 and Math Level 4  
**Recommended:** ISCI122  
 A general biology course for educators and education majors on integrated understanding of the natural world, including the biotic and abiotic components comprising three typical mid-Michigan environmental communities: an aquatic, a forest, and a field community. (F,Sp,Su)
- BIOL260 Botany** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** One semester of college-level biology  
 An introduction to the study of plants that includes structure and function, development, and ecology. Emphasis will be placed on the diversity, adaptations, and life cycles of major plant groups. Laboratory will complement the basic concepts with emphasis on physiology, systematics, and species of value to medicine and agriculture. (F)
- BIOL265 Zoology** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6 and Math Level 4  
**Recommended:** One semester of college-level biology  
 Topics include principles of taxonomy; early animal development; the diversity of animal body plans; and protozoan biology. Course deals principally with taxonomy, early development, and comparative anatomy of members within the animal phyla and classes. Groups are surveyed in a phylogenetic approach. (Sp)
- BIOL270 Human Genetics** 3  
**Prerequisite:** Reading Level 5 and Writing Level 6 and Math Level 4  
**Recommended:** One semester of college-level biology  
 Presents general principles of genetics with specific human application. Topics include Mendelian genetics, mitosis and meiosis, chromosome structure and aberrations, sex determination and x-linkage, molecular basis of inheritance, gene mutations, genetics of immune system, cancer genes, recombinant DNA technology, and genetic screening and counseling. (Sp)
- BIOL275 Molecular Biology I** 4  
**Prerequisite:** Minimum 2.0 in (BIOL127 and CHEM151 and CHEM161) and Reading Level 5 and Writing Level 6 and Math Level 4  
 Introduces principles of molecular biology, DNA/RNA structure, function and replication, Polymerase Chain Reaction, and recombinant DNA technology. Laboratory emphasizes reagent preparation, culturing bacteria, isolating and purifying bacterial and plasmid DNA, restriction enzyme digests, and agarose gel electrophoresis analysis. Field trip to research laboratories. Designed for Laboratory Technicians. (F)
- BIOL276 Molecular Biology II** 4  
**Prerequisite:** Minimum 2.0 in BIOL275 and Reading Level 5 and Writing Level 6 and Math Level 4  
 Continuation of BIOL275. Advanced lecture topics in bacteriophage biology, gene analysis, gene sequencing, and applications of molecular biotechnology. Gene cloning experiments with lambda bacteriophage and plasmid vectors, Southern hybridizations, and construction of a genomic library of lambda phage DNA. Designed for Laboratory Technicians. (Sp)

**BIOL285 Biology in the Tropics** 2**Prerequisite:** Reading Level 5 and Writing Level 6 and Math Level 4

A field experience to study tropical ecosystems in Costa Rica. An eight week lecture series on tropical biology will culminate with a ten day visit to various ecosystems in Costa Rica. Individual writing projects emphasizing evolutionary and ecological concepts will be conducted in the field. (Sp)

**BIOL287 Tropical Aquatic Systems** 4**Prerequisite:** Reading Level 5 and Writing Level 6 and Math Level 4**Recommended:** College-level biology or chemistry

This course combines a classroom lecture series with a 10-day field study in Puerto Rico. Students will study tropical aquatic systems including forested streams, tide pools, urban waterways, and coral reefs. Evaluation will be based on lecture tests, journals, and the development and completion of individual research projects. (F)

**BLDR - Building Related****BLDR112 Wood Projects Lab** .75**Prerequisite:** None**Recommended:** Previous woodworking experience

This class is designed to offer students the opportunity to work on their own woodworking projects. The tools and equipment in the shop are available for student use. The instructor is available to help with the use of tools and to assist with their projects. (Su)

**BLDR144 Build Your Own Home** 1.5**Prerequisite:** None

This course is designed for students who wish to build their own homes. Included are design considerations, land acquisition, selection of materials, choosing contractors, scheduling of work, financing, and landscaping. Guest speakers, who are experts in their various fields, provide the instruction. (F,Sp,Su)

**BLDT - Building Trades****BLDT100 Introduction to Construction** 3**Prerequisite:** None

This course covers basic concepts of construction; including city and regional planning, managing, contracting, designing, engineering, estimating, bidding and inspecting; as well as the production work normally associated with construction. (F)

**BLDT101 Basic Woodworking** 2**Prerequisite:** None

An introductory course designed for students with little or no experience with woodworking. Students will learn hand and portable power tools, joint construction, fastening methods, woodworking techniques and procedures, and wood finishing techniques. Reviews basic wood harvesting and characteristics through project design, hands-on activities and capped with an individual student project. (F,Sp)

**BLDT103 Structural Blueprint Reading** 4**Prerequisite:** None

This course covers symbols, conventions and abbreviations used in structural blueprints. The student will be able to recognize conventions and verbally describe their interpretation in trade or lay terms according to standard architectural practices. Residential and commercial prints are used to show the relationship between working drawings and specifications. (F,Sp,Su)

**BLDT121 Residential Framing** 4**Prerequisite:** None

Students will learn to frame residential buildings using accepted framing techniques; such as framing member spacing, framing floor systems, interior and exterior walls, ceilings, roofs and stairs. Various types of foundations and the advantages and disadvantages of each are covered. Hands-on methods are used. (F,Sp,Su)

**BLDT123 Remodeling** 4**Prerequisite:** Minimum 2.0 in BLDT121 or concurrently

Building on existing construction skills and knowledge, this course teaches students how to approach a residential remodeling project. Subjects covered include analyses of existing structures, design, estimating, problem solving, building practices, materials, and installation methods for various types of remodeling projects. (Sp)

**BLDT125 Roofing and Siding** 4**Prerequisite:** Minimum 2.0 in BLDT121 or concurrently

Students will learn how to install different roofing and siding materials. This course covers analysis, design, estimating, problem solving, building practices, materials, and installation methods for roofing and exterior wall covering projects. (Sp)

**BLDT126 Interior Carpentry** 4**Prerequisite:** Minimum 1.0 in BLDT121 or concurrently

Students will learn to finish the interior of a residential building. This course covers the materials, installation practices and material takeoff to do the finish carpentry for a house to include windows, doors, base, chair rail, wood floors, stairs, simple built-ins and cabinets. (F)

**BLDT132 General Home Maintenance** 2**Prerequisite:** None

This is an introductory course in general home maintenance. Areas to be covered will include basic tools, electrical, plumbing, framing, roofing, interior trim, drywall and painting, appliance maintenance and repair, and concrete flatwork and blocklaying. (F,Sp,Su)

**BLDT262 Builder's Business License** 4**Prerequisite:** None

This course covers the principles of residential builder organizations and business practices, along with other useful information to help students pass the State of Michigan Builder's License Exam. Preparation for a residential project from planning to actual construction and sale of the project is covered. (Sp)

**BLDT277 Construction Cost Estimating** 4**Prerequisite:** Minimum 1.0 in (BLDT103 or ARCH114 or ARCH101) or concurrently

Students will learn to do a structural material takeoff and a complete estimate for residential and light commercial buildings. The course uses standard estimating practices to estimate the cost of buildings based on detailed blueprints. (F,Sp)

**BLDT281 Michigan Residential & Building Codes** 3**Prerequisite:** None

Students will be introduced to the Michigan Residential Code and the Michigan Building Code. This course will emphasize the interpretation and application of the Michigan Residential Code and the Michigan Building Code. Requirements for materials, barrier-free design and fire standards for residential and commercial construction will also be emphasized. (F,Sp,Su)

**BLDT285 Residential Building Internship** 2**Prerequisite:** Minimum 1.0 in BLDT121 and Department Approval**Restriction:** Residential Building Majors

This course offers students the opportunity to work for a residential builder in an actual job situation. The students can gain experience working with tools used in the industry and applying what they learned in the classroom and laboratory. (F,Sp,Su)

**BLDT296 Ceramic Tile Seminar** .5**Prerequisite:** None

This seminar will teach the basic principles for installation of ceramic tile. This includes the selection of types of tile, how to lay out the tile, preparation of the surface, care of tools used, and estimation of labor and materials. (F,Sp)

**BLDT298 Builder's License Review** 1**Prerequisite:** None

This is a two-day workshop designed to prepare individuals for the State of Michigan Residential Builder's Examination. This workshop will include concentrated instruction in blueprint reading, state regulations, building terms, basic math, and construction codes. (F,Sp,Su)

**BUSN - Business****BUSN101 Business Special Topics** 1-3**Prerequisite:** None

This course explores special topics and current issues, as well as knowledge, skills, attitudes and/or behaviors relevant to the professional development of business students and professionals. (F,Sp,Su)

**BUSN118 Introduction to Business** 3**Prerequisite:** Reading Level 5

Introduces students to principles, problems, and practices related to the world of business. Topics covered include business management and organization, marketing, finance, economics, production, and international business. (F,Sp,Su)

**BUSN160 Starting a Business** 2**Prerequisite:** Reading Level 5 and Writing Level 4

This course will introduce students to the world of entrepreneurs and their role in small business. There will be an emphasis on building a "business" which will include the elements of entrepreneurship, management, marketing and finance. The Internet will be used as a resource and many real-life cases will be studied. (F,Sp)

**BUSN161 Writing a Business Plan** 2**Prerequisite:** Minimum 2.0 in BUSN160 or concurrently and Reading Level 5 and Writing Level 6

The focus of this course is on writing a business plan. Students will develop a realistic business plan which includes the marketing plan and financial plan. The successful plan will be clear and concise and incorporate the mission, goals, objectives and implementation strategies of the business as outlined and presented in the course text. (F,Sp)

**BUSN191 Independent Study in Business** 1-3**Prerequisite:** Department Approval

Students are allowed to undertake special research projects and/or individual readings to apply personal and professional experience to academic area of interest. Minimum of 16 hours work per credit required, plus completion of written project report. (F,Sp,Su)

**BUSN201 International Business** 3**Prerequisite:** None**Recommended:** BUSN118

Overview of international business: organizational, social, cultural, and economic variables that create change in the international marketplace. Includes exchange rates, resource allocation, import quotas and export controls, balance of payments, and free trade versus protectionism. (F,Sp,Su)

**BUSN250 Personal Finance** 3**Prerequisite:** None

Provides a broad survey of topics including budgeting, smart shopping, buying a car, renting, buying or selling a home, credit requirements, investing, insurance, and estate and retirement planning. Not intended to be a financial planning course, but students will develop a fundamental knowledge of financial concerns. (F,Sp)

**BUSN251 Stock Market Essentials** 3**Prerequisite:** None

Study of securities market to give framework with which to set investment goals and achieve desired results. Introduction to some of the more prevalent theories, concepts, and skills to aid in developing strategies and making sound investment decisions related to the stock market. (F,Sp)

**BUSN254 Introduction to Investments** 2**Prerequisite:** None

This course covers the fundamental principles of investing and its role in our economy. Emphasis will be on developing terminology, types of investments, and personal financial planning such as mutual funds, real estate, CDs, money market funds, limited partnerships, insurance, IRAs, stock, and tax shelters. This is an overview course. (F,Sp)

**BUSN295 Small Business Management Capstone** 2**Prerequisite:** None

This capstone course offers practical work on small business operations, including business and managerial functions, environment, financial, marketing, legal and governmental relationships. Editing, revising, and finalizing the business plan prepares the student for seeking funding, obtaining credit from suppliers, and achieving goals and objectives. (F,Sp)

**CABS - Computer Applications Using Business Software****CABS100 Computer Related Seminars** .25-1**Prerequisite:** None

This series of seminars provides the successful participant with operational proficiency in using specific microcomputer software. The seminars also provide the students with some experience using commands, functions, and features of the software beyond the basic level. Extensive hands-on activity is the primary method used in learning. (F,Sp,Su)

**CHCE - Continuing Health Careers****CHCE106 Cardiac Dysrhythmia Interpretation** 2.5**Prerequisite:** None

This course introduces the student to identification of common dysrhythmias seen on a monitor or telemetry unit. Content will include criteria, causes, hemodynamic effects, and treatment of dysrhythmias according to ACLS guidelines. Use of monitoring equipment is integrated within the course content. (F,Sp,Su)

**CHCE210 PALS Training** 1**Prerequisite:** Current Basic Life Support or CPR Card

This seminar is designed for members of the health care team who work with pediatric patients. A combination of lecture and practice in skills stations will prepare the student for success in achieving American Heart Association certification as a Pediatric Advanced Life Support Provider. Prior assigned reading mandatory. Participants must have a current healthcare provider card for CPR. (F,Sp,Su)

**CHCE211 PALS Renewal** .5**Prerequisite:** Current Basic Life Support or CPR Card and Current PALS Provider Card

This seminar is designed to renew according to the American Heart Association (AHA) standards, the provider status of healthcare professionals currently possessing a valid Pediatric Advanced Life Support (PALS) card. A new card will be issued upon successful completion of this course. Prior assigned reading is mandatory. (F,Sp,Su)

**CHCE227 Health Related Seminars** .25-8**Prerequisite:** Determined by Unit Section

Seminar content is dependent upon course requirement. (F,Sp,Su)

**CHCE230 ACLS Training Seminar** 1**Prerequisite:** Current Basic Life Support or CPR Card

This seminar is designed for members of the health care team to develop knowledge and skills in Advanced Cardiac Life Support (ACLS). A combination of lecture and skills performance will prepare the student to achieve success in American Heart Association certification as an ACLS provider. Prior assigned reading mandatory. Participants must have a current healthcare provider CPR card. (F,Sp,Su)

**CHCE235 ACLS Renewal** .5**Prerequisite:** Current Basic Life Support or CPR Card and Current ACLS Provider Card

This seminar is designed to renew according to the American Heart Association (AHA) standards, the provider status of healthcare professionals currently possessing a valid Advanced Cardiac Life Support (ACLS) card. A new card will be issued upon successful completion of this course. Prior assigned reading is mandatory. (F,Sp,Su)

**CHDV - Child Development****CHDV100 Foundations in Early Childhood Education** 3**Prerequisite:** Reading Level 3 and Writing Level 4

This course provides a broad view of essential elements in early childhood education and care including the role of the early childhood education professional. Topics include elements of quality, providing a supportive emotional environment, influences on children's learning including family and culture, and the importance of matching curriculum to development. (F,Sp,Su)

**CHDV101 Child Growth/Development: 0-10 Years** 4**Prerequisite:** Reading Level 5 and Writing Level 4

This course examines the growth and development patterns of children up through age ten in physical, social, emotional, cognitive and language development. This includes the influences of health, play, families, the early childhood education experience, and other environmental factors which impact development. Students acquire skills in observing and recording child behavior. (F,Sp,Su)

**CHDV111 Child Guidance and Communication** 4**Prerequisite:** Minimum 2.5 in CHDV100 or concurrently and Reading Level 3 and Writing Level 4

This course, which includes field work, examines interaction skills and environmental structures which foster social and emotional growth in children in early childhood education and care settings. Topics include positive guidance and discipline, effective communication with children, problem solving, and social skill development. (F,Sp)

**CHDV112 Family Relationship/Early Child Programs** 2**Prerequisite:** Minimum 2.5 in (CHDV100 and CHDV111)

This course examines ways to establish and maintain positive and supportive relationships with families in early education and care programs. The focus includes understanding the parent's perspective, supporting the child's relationship with his or her family, encouraging parental involvement, and communicating with parents. (F,Sp)

**CHDV113 Health/Safety: Early Child Programs** 2**Prerequisite:** Reading Level 3 and Writing Level 4

This course examines health and safety issues in early education and care programs. Topics include identifying and preventing communicable illnesses, bloodborne pathogens, safe equipment and play areas, prevention of accidents, nutrition, and health and safety education. (F,Sp)

**CHDV120 Curriculum: Physical Dev/Early Childhood** 1**Prerequisite:** None

This course examines curriculum and activities which enhance the development of physical and motor skills of children in early childhood programs. It includes specific information on developmentally appropriate activities for fine motor, gross motor, and sensory development for a variety of ages. Seminar format is used. (F)

**CHDV121 Curriculum: Cognitive Development** 1**Prerequisite:** None

This course examines the theoretical foundations of cognitive development of young children and their impact on curriculum development in early childhood programs. Students will explore curriculum, including classroom materials, activities, and effective teaching strategies that support children's cognitive development. Seminar format used. (Sp)

**CHDV122 Curriculum: Creative Dev/Early Childhood** 1**Prerequisite:** None

This course examines curriculum and activities which enhance the creative development of children in early childhood education and care programs. Specific information on activities in the areas of art, music, creative, and dramatic play with a variety of materials are shared. Seminar format is used. (Su)

**CHDV123 Curriculum: Early Childhood Literacy** 1**Prerequisite:** None

This course examines curriculum which enhances the development of literacy in early childhood education and care programs. The focus is on designing and implementing developmentally appropriate strategies, environments and activities that promote the acquisition of basic concepts about literacy for children five years of age and under. Topics include: oral language, emergent reading, emergent writing, and literacy environments. Seminar format is used. (F,Su)



<p><b>CHDV124 Curriculum: Early Math Development</b> 1  <b>Prerequisite:</b> None  <b>Recommended:</b> Experience in Early Childhood Education and Care  This course examines curriculum which enhances the interest in, and development of, math skills, concepts and awareness in early childhood education and care programs. The focus is on designing and implementing developmentally appropriate strategies, environments, and activities that promote the acquisition of basic concepts about math to include number, measurement, shape, data analysis, problem solving, and patterns for preschool aged children. Seminar format is used. (F,Sp)</p> <p><b>CHDV130 Introduction to Early Education and Care</b> 1  <b>Prerequisite:</b> None  This course introduces factors in providing quality early education and care. Topics include program planning; curriculum development; child growth and development; positive guidance and discipline skills; safety, health and nutrition; parent communication and involvement; and professionalism. (F,Sp,Su)</p> <p><b>CHDV131 Family Child Care Management</b> 2  <b>Prerequisite:</b> Reading Level 3 and Writing Level 4  This course presents a systematic approach to managing a family child care home and creating a positive learning environment for young children in a home setting. Topics include business aspects, program development, professionalism, managing personnel, and organizing the environment. (F)</p> <p><b>CHDV181 Adult Communication/Early Child Programs</b> 1  <b>Prerequisite:</b> None  <b>Recommended:</b> Experience in Early Childhood Program  This course examines effective adult-adult communication (both staff-staff and staff-parent) in early childhood education and care programs. Topics include personal communication style, challenging situations, and effective strategies to improve communication, problem-solving and team building. Seminar format is used. (Sp)</p> <p><b>CHDV184 Children and Stress</b> 1  <b>Prerequisite:</b> None  This course examines stress as it relates to children. Specific topics include symptoms and causes of stress, situations which are stressful for children, ways to help children cope with stress, and techniques for reducing stress. Divorce and death are among topics discussed. Seminar format is used. (Sp,Su)</p> <p><b>CHDV185 Preventing Child Sexual Abuse</b> 1  <b>Prerequisite:</b> None  This course explores preventing child sexual abuse through teaching personal safety to children. Topics include the sexually abusive situation, behavioral indicators, legal mandates, reporting protocol and appropriate adult responses. It emphasizes appropriate ways of teaching personal safety to children, selecting personal safety materials, and adult concerns when teaching it. Seminar format is used. (Sp)</p> <p><b>CHDV186 Child Self-Esteem/Positive Discipline</b> 1  <b>Prerequisite:</b> None  This course looks at children's self-esteem: what it is, where it comes from, and how it can be fostered in both home and early education settings. It focuses on practical suggestions and teaches positive discipline techniques that build self-esteem. Seminar format is used. (F,Sp,Su)</p>	<p><b>CHDV188 Caring for Children with Special Needs</b> 2  <b>Prerequisite:</b> Reading Level 3 and Writing Level 4  This course focuses on the special and diverse individual needs of children and their families in early childhood education and care settings. It addresses identification of children with disabilities or in "at-risk" categories; community services; inclusion in least restrictive environments; family-centered intervention; and communication skills which enhance work with children with special needs and their families. (Sp,Su)</p> <p><b>CHDV189 Helping Children Value Diversity</b> 1  <b>Prerequisite:</b> None  This course explores how early education and care programs can promote diversity and encourage tolerance through embracing similarities and differences. Topics include identity formation, bias, cultural awareness and integrating diversity into the program and curriculum. Seminar format is used. (F)</p> <p><b>CHDV197 Child Development Special Topics</b> 1-4  <b>Prerequisite:</b> Determined by Unit Section  This course explores recently identified current issues, knowledge, skills and/or attitudes in the field of early childhood education and care. (F,Sp,Su)</p> <p><b>CHDV220 Preschool Curriculum/Learning Environment</b> 4  <b>Prerequisite:</b> Minimum 2.5 in (CHDV101 and CHDV111)  This course, with field work, explores developmentally appropriate programming which promotes physical, cognitive, language, literacy, and creative development in preschool-age early education and care settings. Emphasis is on active involvement of children in concrete experiences. Other topics include learning environments, materials and equipment, learning goals, and observation and assessment skills. (F,Sp)</p> <p><b>CHDV221 Infant-Toddler Program Development</b> 4  <b>Prerequisite:</b> Minimum 2.5 in (CHDV101 and CHDV111)  This course, which includes field work, explores physical and emotional environments needed for quality early education and care for infants and toddlers. Focus includes developing nurturing skills, developmentally appropriate activities and materials, managing schedules and routines, and observation skills. (F,Su)</p> <p><b>CHDV222 School-Age ChildCare Program Development</b> 2  <b>Prerequisite:</b> Minimum 2.5 in CHDV101  This course examines the developmentally appropriate programming for school-aged children in out-of-school-time programs. Content includes appropriate equipment and activities, environment and program structure, and individual and group management. (F,Sp)</p> <p><b>CHDV230 Early Childhood Center Administration</b> 2  <b>Prerequisite:</b> Minimum 2.5 in (CHDV220 or CHDV221) and Writing Level 6  This course examines the administrator's role in directing an early childhood and care center and in providing a systematic approach to program management. Topics include goal-setting, safety, licensing, health and nutrition, policy development, business techniques, and personnel management. (F,Sp)</p>
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**CHDV240 Developmental Discipline** 2

**Prerequisite:** Minimum 2.5 in (CHDV101 and CHDV111) and Reading Level 5 and Writing Level 4

**Recommended:** Experience in an early childhood education program  
Responding effectively to young children when they engage in behavior that challenges the adults who care for them requires developmentally appropriate guidance techniques. Most challenging behavior is developmental, and early childhood education is family focused, so interventions must address relationships, environment and curriculum, positive behavioral support and effective use of external consultation. (Sp)

**CHDV251 CDA Credentialing Preparation&Fieldwork** 3

**Prerequisite:** Minimum 2.5 in CHDV111 and (CHDV220 or CHDV221) and Department Approval

**Recommended:** Employed or volunteer 8+ hrs/week in approved regulated child care program

This course, and accompanying field work, examines credentialing procedures and competency standards for the Child Development Associate (CDA) Credentialing Assessment. Students complete the resource file, are observed using the CDA observation instrument, and prepare for the CDA situational assessment. Content covers functional area of families, professionalism, program management, and observation. (F)

**CHDV251A CDA Credential Assessment Preparation** 1

**Prerequisite:** Minimum 2.5 in CHDV111 and (CHDV220 or CHDV221) and Department Approval

**Recommended:** Employed or volunteer 8+ hrs/week in approved regulated child care program

This course examines credentialing procedures and competency standards for the Child Development Associate (CDA) Credentialing Assessment. Students complete the resource file and prepare for the Verification Visit of the CDA Council Representative. Content of the course also covers the CDA formal education requirements: "Maintaining a commitment to professionalism." (Sp)

**CHDV251B CDA Formal Training Completion** 1

**Prerequisite:** Minimum 2.5 in CHDV111 and (CHDV220 or CHDV221) and Department Approval

**Recommended:** Employed or volunteer 8+ hrs/week in approved regulated child care program

This course examines CDA credentialing procedures and competency standards for the Child Development Associate (CDA) Credentialing Assessment in the required formal education in the CDA functional areas of families, program management, and observing and recording children's behavior. (Sp)

**CHDV251C CDA Practicum** 1

**Prerequisite:** Minimum 2.5 in CHDV111 and (CHDV220 or CHDV221) and Department Approval

**Recommended:** Employed or volunteer 8+ hrs/week in approved regulated child care program

This course is the field work required for completion of the CDA Assessment Observation Instrument by a CDA Advisor who meets the CDA eligibility requirements. The CDA competency standards for the Child Development Associate (CDA) Credentialing Assessment are applied in the field with children 0-5 years old and the student is assessed using the CDA tool. (Sp)

**CHDV284 Early Childhood Practicum** 5

**Prerequisite:** Minimum 2.5 in CHDV220 and CHDV221 and (CHDV112 or concurrently) and Writing Level 6 and Department Approval

A capstone supervised field experience working directly with children in an early education and care program. Students gain skill in planning and implementing the daily children's program, and in setting and assessing goals for individual children and the classroom. Accompanying seminar explores the teacher's professional role in planning, goal-setting, and evaluation. (Sp)

**CHDV297 Child Development Independent Study** 1-3

**Prerequisite:** Department Approval

This course includes special research, directed study, or service-learning projects in child development. It requires at least 16 hours of independent work for each credit. A learning contract specifying objectives, activities, and outcomes is required. (F,Sp,Su)

**CHEM - Chemistry****CHEM120 General Organic and Biological Chemistry** 4

**Prerequisite:** Reading Level 5 and Writing Level 4 and Math Level 4

Introduces topics in general, organic, and biological chemistry that are used in health-related occupations. Included are scientific measurement, atomic structure and bonding, chemical equations and stoichiometry, solutions, acids, bases, buffers, gas behavior, nuclear radiation, organic functional groups, and the biologically important compounds: carbohydrates, lipids, and proteins. (F,Sp,Su)

**CHEM125 Basic Chemistry** 4

**Prerequisite:** Reading Level 5 and Writing Level 4 and (Math Level 5 or MATH107 concurrently)

Intended for students who have not had high school chemistry or who require a refresher course. Measurement, problem solving, chemical formulas, chemical equations, stoichiometry, atomic structure, chemical bonding, gas laws, solutions, and acids and bases are emphasized. (F,Sp,Su)

**CHEM130 Biochemistry** 4

**Prerequisite:** Reading Level 5 and Writing Level 6

**Recommended:** Minimum 2.0 in (CHEM120 or CHEM125)

This course is designed to provide an understanding of the chemistry of life processes. Topics include organic functional groups, enzymes, carbohydrates, lipids, proteins, metabolic pathways, nucleic acids, biochemical genetics, blood and respiratory chemistry, urine, electrolytes, acid-base balance, and hormones. (Sp,Su)

**CHEM135 Chemistry in Society** 4

**Prerequisite:** Reading Level 5 and Writing Level 6 and Math Level 4

A general education course which presents chemistry to non-science majors who must function and make decisions in a society shaped by science and technology. Chemistry knowledge is introduced and applied on a need-to-know basis with respect to issues in society that have significant chemistry components. (F,Sp)

**CHEM145 Introduction to Forensic Chemistry** 4

**Prerequisite:** Reading Level 5 and Writing Level 4 and (Math Level 5 or MATH107 concurrently)

**Recommended:** Minimum 2.0 in CHEM125 or High School Chemistry  
This course will introduce chemistry from the perspective of forensic laboratory practice. Students will explore a variety of physical and chemical methods of analysis using unknowns designed to simulate physical evidence problems. Students will also learn to use the scientific method in reaching conclusions about evidence. (F,Sp)

<b>CHEM151 General Chemistry Lecture I</b>	<b>4</b>
<b>Prerequisite:</b> Reading Level 5 and Writing Level 6 and (Math Level 6 or MATH112 concurrently)	
<b>Recommended:</b> (Minimum 2.0 in CHEM125 or High School Chemistry) and CHEM161 concurrently	
The first of two semester courses designed to provide an in-depth introduction to general chemistry for students who plan careers in the health professions, physical sciences, biological sciences, or engineering. Topics discussed include measurement, aqueous reactions, stoichiometry, thermochemistry, atomic structure, bonding, and acids and bases. (F,Sp,Su)	
<b>CHEM152 General Chemistry Lecture II</b>	<b>3</b>
<b>Prerequisite:</b> Minimum 2.0 in CHEM151 and (Math Level 8 or MATH121 or MATH126 concurrently)	
The second of two semester courses designed to provide an in-depth introduction to general chemistry for students who plan careers in the health professions, sciences, or engineering. Topics include kinetics, ionic equilibria, thermodynamics, electrochemistry, descriptive chemistry, and nuclear chemistry. (F,Sp,Su)	
<b>CHEM161 General Chemistry Lab I</b>	<b>1</b>
<b>Prerequisite:</b> Minimum 2.0 in CHEM151 or concurrently and Reading Level 5 and Writing Level 6 and Math Level 5	
Laboratory course designed to complement CHEM151. Stresses basic laboratory techniques, writing lab reports, and critical thinking exercises. Topics include density determination, synthesis, empirical formulas, molecular geometry, gas laws, pH and water hardness. (F,Sp,Su)	
<b>CHEM162 General Chemistry Lab II</b>	<b>1</b>
<b>Prerequisite:</b> Minimum 2.0 in (CHEM152 or concurrently) and CHEM161	
Laboratory course designed to complement CHEM152. CHEM162 is the second semester general chemistry laboratory course. Stresses laboratory techniques and analyzing and reporting laboratory data. Topics include inorganic synthesis, chemical analysis, acid-base and solubility equilibria, oxidation-reduction reactions, and chemical kinetics. (F,Sp,Su)	
<b>CHEM182 Introductory Organic Chemistry</b>	<b>3</b>
<b>Prerequisite:</b> Reading Level 5 and Writing Level 6	
<b>Recommended:</b> Minimum 2.0 in CHEM151	
A survey of the principles of organic chemistry. Introduces the student to structure, nomenclature, chemical and physical properties, selected characteristics, preparations and reactions of the most common classes of organic compounds. Other topics include polymers, optical isomerism, and selected reaction mechanisms. (F,Sp,Su)	
<b>CHEM192 Introductory Organic Chemistry Lab</b>	<b>1</b>
<b>Prerequisite:</b> Minimum 2.0 in CHEM182 or concurrently and Reading Level 5 and Writing Level 6	
<b>Recommended:</b> CHEM151	
Designed for students in majors such as chemical processing, packaging, agriculture, and forestry who require only one credit of organic lab. It gives students an introduction to common techniques, equipment, and chemicals found in an organic laboratory. Particular attention is given to compounds studied in CHEM182. (F,Sp,Su)	
<b>CHEM211 Chemical Processing Technology I</b>	<b>4</b>
<b>Prerequisite:</b> Minimum 2.0 in CHEM151 and Reading Level 5 and Math Level 6	
This course provides an overview of Chemical Process Technology. Topics include the roles and responsibilities of Chemical Process Technicians, the equipment and systems that they operate, and relevant safety and environmental issues. The student will apply previously learned scientific principles to the field of Chemical Process Technology. (Sp)	

<b>CHEM251 Organic Chemistry Lecture I</b>	<b>4</b>
<b>Prerequisite:</b> Minimum 2.0 in CHEM151	
<b>Recommended:</b> Minimum 2.0 in CHEM152	
The first lecture course of a two-semester sequence in organic chemistry for chemical engineering, chemical technology, chemistry, or pre-professional majors. Topics include structure and bonding, hybridization, nomenclature, stereochemistry, thermodynamics and kinetics of organic reactions, functional groups including reactions and mechanisms, and applications of mass spectrometry. (F,Sp,Su)	
<b>CHEM252 Organic Chemistry Lecture II</b>	<b>4</b>
<b>Prerequisite:</b> Minimum 2.0 in CHEM251	
Continuation of CHEM251. Topics include aromatic compounds, spectroscopy, organometallic compounds, aldehydes and ketones, carboxylic acids and their derivatives, amines, enolates, phenols, carbohydrates, polymers, and proteins. (F,Sp,Su)	
<b>CHEM262 Quantitative Analysis</b>	<b>3</b>
<b>Prerequisite:</b> Minimum 2.0 in (CHEM152 and CHEM162)	
This course covers the theory and procedures of classical analytical techniques, including gravimetric analysis and titrimetric methods. Use of instruments such as spectrophotometers, pH meters, and others is also included. Designed for laboratory technician preparation and for Chemical Process or transfer students. (F)	
<b>CHEM272 Organic Chemistry Laboratory</b>	<b>2</b>
<b>Prerequisite:</b> Minimum 2.0 in CHEM251	
<b>Recommended:</b> CHEM252 concurrently	
Designed for students (in majors such as chemistry, pre-med, and pre-pharmacy) who require more than one credit of organic lab. It gives students experience with the chemicals, techniques, and equipment commonly employed in organic laboratories. Particular attention is given to compounds studied in CHEM251 and 252. (F,Sp)	
<b>CHSE - Community Health Services Education</b>	
<b>CHSE100 Introduction to Health Professions</b>	<b>3</b>
<b>Prerequisite:</b> Reading Level 5	
This course is an overview of the health care industry, including medical ethics, trends in health care, and exploration of career options. It includes introduction to medical terminology, anatomy and physiology, vital signs measurement, math used for conversions, basic cardiac life support skills, and universal precautions / blood borne pathogen training. (F,Sp,Su)	
<b>CHSE101 Acute Care Nursing Assistant/Orderly</b>	<b>6</b>
<b>Prerequisite:</b> Reading Level 4	
This course will prepare an individual for employment as a nursing assistant/orderly in a hospital, or other acute care delivery setting. The course will provide the knowledge and skills needed in order to provide safe basic patient care. This course does not provide eligibility to become a Certified Nurse Assistant (CNA). (F,Sp,Su)	
<b>CHSE108 Long-Term Care Nurse Aide</b>	<b>4</b>
<b>Prerequisite:</b> Reading Level 3	
This course will prepare an individual to be a nurse aide in a long-term care facility or home health care agency. This state-approved course will provide specific knowledge and skills required for a nurse aide to safely function in a long-term care setting. Upon successful completion, the student is eligible to take the Certified Nurse Assistant (CNA) Exam. (F,Sp,Su)	

<p><b>CHSE110 Nurse Aide: Acute &amp; Long-Term Care</b> 8</p> <p><b>Prerequisite:</b> Reading Level 4</p> <p>This course will prepare individuals to be nurse aides in an acute care setting, long-term care facility, or home health care agency. The course will provide specific knowledge and skills required to deliver safe basic care. Successful completion of this course provides eligibility to take the Certified Nurse Assistant (CNA) Exam. (F,Sp,Su)</p>	<p><b>CHSE120 Medical Terminology</b> 4</p> <p><b>Prerequisite:</b> Reading Level 5 and Writing Level 4</p> <p>Medical Terminology will provide a basic knowledge of word building, use, pronunciations, spelling of medical terms, applying terms to the function and structure of body systems and specific disease conditions. Emphasis is placed on medical terms in periodicals, textbooks, and medical care areas. This is a health careers foundational course. (F,Sp,Su)</p>
<p><b>CHSE114 Pathology-Allied Health</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in BIOL145</p> <p>General principles of pathology are discussed, rather than specific disease entities, to develop a new way of thinking about disease processes. Concepts of disease processes and their effect on normal structure and function of the body are emphasized. (F,Sp)</p>	<p><b>CHSE120A Medical Terminology: The Basics</b> .5</p> <p><b>Prerequisite:</b> Reading Level 5 and Writing Level 4</p> <p>This Medical Terminology module presents the basics of word building, use, pronunciation, spelling, and application of terms to the function and structure of the body as a whole. Emphasis is on medical terms in periodicals, textbooks, and medical care areas. CHSE120, the parent course of this module, is a health careers foundational course. (F,Sp,Su)</p>
<p><b>CHSE115 Pharmacology-Allied Health</b> 2</p> <p><b>Prerequisite:</b> Minimum 2.5 in BIOL145 or (BIOL201 and BIOL202)</p> <p>This course is designed to familiarize the student with common medications encountered in health care occupations. Emphasis is on drug categories and the responsibilities associated with medication administration. (F,Sp)</p>	<p><b>CHSE120B Med Term: Heart &amp; Lungs</b> .5</p> <p><b>Prerequisite:</b> Minimum 2.5 in CHSE120A or concurrently</p> <p>This Medical Terminology module expands on the basics presented in Module A. Emphasis is on the cardiovascular and respiratory systems. The module utilizes reviews of medical terms in periodicals, textbooks, and medical care areas. CHSE120, the parent course of this module, is a health careers foundational course. (F,Sp,Su)</p>
<p><b>CHSE116 EKG Basics - Allied Health</b> 2</p> <p><b>Prerequisite:</b> Reading Level 4</p> <p><b>Recommended:</b> Health Careers Applicant or Professional</p> <p>This course is designed to teach the basic skills of electrocardiography necessary to perform, process, and explain the electrocardiogram. An overview of anatomy and physiology of the cardiovascular system, operation of the electrocardiograph and recording EKGs, cardiac pathology, and basic cardiac rhythm recognition will be presented. (F,Sp)</p>	<p><b>CHSE120C Med Term: Radiology/Musculoskeletal</b> .5</p> <p><b>Prerequisite:</b> Minimum 2.5 in CHSE120A or concurrently</p> <p>This Medical Terminology module expands on the basics presented in Module A. Emphasis is on radiology and the musculoskeletal system. The module utilizes reviews of medical terms in periodicals, textbooks, and medical care areas. CHSE120, the parent course of this module, is a health careers foundational course. (F,Sp,Su)</p>
<p><b>CHSE117 Health Law and Ethics</b> 2</p> <p><b>Prerequisite:</b> Reading Level 5 and Writing Level 4</p> <p><b>Recommended:</b> Health Careers Applicant or Professional</p> <p>This course presents for discussion, legal and ethical issues arising from the organization and delivery of health care services. Topics include contracts, torts, business law; medical recordkeeping and retention; physicians' public duties; licensure, certification and regulation of health professionals; consent for treatment; and exploration of issues arising from various bioethical topics. (F,Sp,Su)</p>	<p><b>CHSE120D Med Term: Digestive/Endocrine Systems</b> .5</p> <p><b>Prerequisite:</b> Minimum 2.5 in CHSE120A or concurrently</p> <p>This Medical Terminology module expands on the basics presented in Module A. Emphasis is placed on medical terminology of the digestive and endocrine systems. The module utilizes reviews of medical terms in periodicals, textbooks, and medical care areas. CHSE120, the parent course of this module, is a health careers foundational course. (F,Sp,Su)</p>
<p><b>CHSE118 Herbiology Therapy - Allied Health</b> 3</p> <p><b>Prerequisite:</b> Reading Level 5 and Writing Level 4</p> <p><b>Recommended:</b> Health Careers Student or Professional</p> <p>Principles of herbiology are discussed along with an overview of Western and Eastern herbal traditions. Pronunciation of names for herbs used in medicine is emphasized. Concepts of health, disease and treatment from Western versus Eastern medical perspectives are discussed with emphasis on herbal interactions with drugs and the use of herbal alternatives to drug therapies. (F)</p>	<p><b>CHSE120E Med Term: Urinary/Reproductive Systems</b> .5</p> <p><b>Prerequisite:</b> Minimum 2.5 in CHSE120A or concurrently</p> <p>This Medical Terminology module expands on the basics presented in Module A. Emphasis is on the urinary and reproductive systems. The module utilizes reviews of medical terms in periodicals, textbooks, and medical care areas. CHSE120, the parent course of this module, is a health careers foundational course. (F,Sp,Su)</p>
<p><b>CHSE119 Community Health Career Topics</b> .25-8</p> <p><b>Prerequisite:</b> Determined by Unit Section</p> <p>This course offers students the opportunity to learn new community health career skills and knowledge. Specific up-to-date content will vary with each seminar and will be related to the community health careers. (F,Sp,Su)</p>	<p><b>CHSE120F Med Term: Blood/Lymph/Oncology</b> .5</p> <p><b>Prerequisite:</b> Minimum 2.5 in CHSE120A or concurrently</p> <p>This Medical Terminology module expands on the basics in Module A. Emphasis is on the blood and lymphatic systems and oncology. The module utilizes reviews of medical terms in periodicals, textbooks, and medical care areas. CHSE120, the parent course of this module, is a health careers foundational course. (F,Sp,Su)</p>
<p><b>CHSE120G Med Term: Nervous, Eye &amp; Ear</b> .5</p> <p><b>Prerequisite:</b> Minimum 2.5 in CHSE120A or concurrently</p> <p>This Medical Terminology module expands on the basics in Module A. Emphasis is on the nervous system, eye and ear. The module utilizes reviews of medical terms in periodicals, textbooks, and medical care areas. CHSE120, the parent course of this module, is a health careers foundational course. (F,Sp,Su)</p>	

4	<p><b>CHSE120H Med Term: Skin &amp; Psychiatry</b> .5</p> <p><b>Prerequisite:</b> Minimum 2.5 in CHSE120A or concurrently</p> <p>This Medical Terminology module expands on the basics in Module A. Emphasis is placed on medical terminology relative to skin and psychiatry. The module utilizes reviews of medical terms in periodicals, textbooks, and medical care areas. CHSE120, the parent course of this module, is a health careers foundational course. (F,Sp,Su)</p>	<p><b>CHSE130 Medical Insur Billing/Coding Externship</b> 4</p> <p><b>Prerequisite:</b> Minimum 2.5 in (CHSE127 and CHSE128) and Pass grade in CHSE129 and Reading Level 5 and Writing Level 4 and Department Approval</p> <p>This course provides students with worksite experience and training that is both physician office and hospital-based. This experience will reinforce the skills learned in CHSE 123-129 and prepare students for an entry-level position in the medical billing and coding field. Students are required to attend lectures which will include discussion of professional work-place skills. (Sp)</p>
.5	<p><b>CHSE123 Medical Insurance Billing &amp; Coding I</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in CHSE120 or concurrently</p> <p>This course introduces insurance billing and diagnostic and procedure coding using the ICD-9, CPT, and HCPCS. Legal and compliance issues and responsibilities and their relationship to insurances are discussed. Computerized insurance billing information is provided. (F,Sp)</p>	<p><b>CHSE132 Health Unit Coordinator</b> 5</p> <p><b>Prerequisite:</b> Minimum 2.5 in CHSE120 or concurrently</p> <p>This course is designed to introduce the student to basic health care unit coordinator skills. Subject matter will include communication skills, computers, assertiveness, chart forms, admissions, transfers, discharges, death and dying, pharmacology, laboratory tests, transcribing physician orders, and job application skills. Clinical component is included. (F,Sp)</p>
.5	<p><b>CHSE124 Medical Insurance Billing &amp; Coding II</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in CHSE123</p> <p>The course provides comprehensive billing directions for BCBS of Michigan, Medicare, Medicaid, commercial insurances including HMOs, managed care, and worker's compensation. (F,Sp,Su)</p>	<p><b>CHSE143 Phlebotomy Technician</b> 2</p> <p><b>Prerequisite:</b> Reading Level 4</p> <p>This course is designed to prepare a person to function as a phlebotomy technician. It will provide the knowledge and skill necessary to safely and skillfully obtain a blood specimen from a patient. The course includes lecture and campus laboratory. (F,Sp,Su)</p>
.5	<p><b>CHSE125 Computers I-Med Insur Billing &amp; Coding</b> 1</p> <p><b>Prerequisite:</b> Minimum 2.5 in CHSE124 or concurrently</p> <p><b>Recommended:</b> Keyboarding experience</p> <p>This course in combination with CHSE 124 introduces students to software used in medical office billing and coding. Students learn to record charges/payments/information, schedule appointments, ICD-9 and CPT coding, produce claim forms and patient statements, and build office databases. (F,Sp)</p>	<p><b>CHSE144 Advanced Phlebotomy</b> 5</p> <p><b>Prerequisite:</b> Minimum 3.0 in CHSE143 and Department Approval</p> <p>This course is designed to enable the student to apply procedures learned in CHSE 143, Phlebotomy Technician, to a clinical laboratory setting. While at the worksite (clinical laboratory), students will be under the supervision of a preceptor. The course includes lecture, a practical review of techniques, and worksite experience. (F,Sp,Su)</p>
.5	<p><b>CHSE127 Medical Insurance Billing &amp; Coding III</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in CHSE124 and Reading Level 5 and Writing Level 4</p> <p>This course builds on the coding taught in CHSE123 and CHSE124 and focuses on coding for inpatient and outpatient hospital-based services. Students will learn to use the ICD-9, CPT and HCPCS to code services provided in a facility. Additionally, students will learn to record charges using the UB92 claim form by insurance (BCBS, Medicare, Medicaid, and commercial), post payments, and review/resubmit insurance rejections. (F)</p>	<p><b>CHSE145 Healthcare Central Service Technician</b> 5</p> <p><b>Prerequisite:</b> Minimum 2.5 in CHSE120 or concurrently and Reading Level 4</p> <p>This course prepares individuals to function competently in the central service department of a health care facility. Duties include (but are not limited to) processing of patient care equipment, supplies, and instruments for use in all departments. Includes principles and practices of decontamination, cleaning, disinfection, sterilization, and distribution of medical/surgical supplies. Clinical component is included. (F,Sp)</p>
.5	<p><b>CHSE128 Medical Insurance Billing &amp; Coding IV</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.5 in CHSE127 or concurrently and Reading Level 5 and Writing Level 4</p> <p>This course introduces students to specialty medical insurance billing and coding by body systems using the ICD-9, CPT, and HCPCS coding books. Instruction will focus on billing and coding specialty medical services provided by a physician in an office as well as for inpatient and outpatient hospital-based services. (F)</p>	<p><b>CHSE201 Food and Nutrition Management I</b> 5</p> <p><b>Prerequisite:</b> Department Approval</p> <p>The first course in a three-semester sequence preparing students for careers as food and nutrition managers. Comprised of classroom and field experience and focusing on nutrition and diet therapy, the content includes interpreting, modifying, planning, and recording nutritional data, as well as conducting client centered, nutritional education sessions. (F)</p>
.5	<p><b>CHSE129 Computers II-Med Insur Billing &amp; Coding</b> 1</p> <p><b>Prerequisite:</b> Pass grade in CHSE125 and (minimum 2.5 in CHSE127 or concurrently) and Reading Level 5 and Writing Level 4</p> <p>This course in combination with CHSE 127 provides instruction on facility medical billing software. Students will learn to record charges, payments, and information; process ICD-9 and CPT coding; produce claim forms and patient statements; and build facility databases. (F)</p>	<p><b>CHSE202 Food and Nutrition Management II</b> 6.5</p> <p><b>Prerequisite:</b> Minimum 2.5 in CHSE201</p> <p>The second course in a three-semester sequence preparing students for careers as food and nutrition managers. Comprised of classroom and field experience, this course focuses on the sanitation and management of a foodservice operation. The emphasis is on sanitary practices involving purchasing, storing, preparing, and serving food that is nutritious and safe. (Sp)</p>

**CHSE205 Food and Nutrition Management III**

5

**Prerequisite:** Minimum 2.5 in CHSE202

The third course in a three-semester sequence preparing students for careers as food and nutrition managers. Comprised of classroom and field experience, this course focuses on the management of a foodservice department's human resources, whose charge is to provide their clients with safe, wholesome food in a cost effective manner. (Su)

**CHSE235 Pharmacy Technician**

4

**Prerequisite:** Reading Level 4 and Math Level 4**Recommended:** Minimum 2.5 in CHSE115

This course is designed to introduce students to the skills necessary for a pharmacy technician position in a hospital or retail pharmacy. Students will be prepared to function with knowledge and accuracy in dispensing and control of drugs in either setting. Successful completion prepares students to take the Pharmacy Technician Certification Board National Certification Exam. (F,Sp)

**CITA - Computer Information Technology/Applications****CITA110 Introduction to Microsoft Office**

3

**Prerequisite:** None**Recommended:** Windows and keyboarding experience and Reading Level 5

This course provides an introduction to MS Office. It is designed to develop basic operational proficiency while using MS Office (MS Word, MS Excel, MS Access, and MS PowerPoint). Students learn how to use word processing, spreadsheet, database, and presentation software. Topics include creating letters, memos, simple spreadsheets, database structures, and slide presentations. (F,Sp,Su)

**CITA115 Microsoft PowerPoint**

3

**Prerequisite:** None**Recommended:** Windows and keyboarding experience and Reading Level 5

This course introduces students to the basic features of Microsoft PowerPoint. Major topics include creating presentations with slide layouts and Design Templates, using embedding objects and animation effects to enhance a presentation. Students will create interactive presentations with links to other applications and also learn how to share presentations with others on the World Wide Web. This course includes content to prepare the student for the Microsoft Office Specialist PowerPoint Comprehensive certification. (F,Sp,Su)

**CITA119 Microsoft Word**

3

**Prerequisite:** None**Recommended:** Windows experience and keyboarding 40 wpm and Reading Level 5 and Writing Level 6

This course is designed to provide the person new to the Word for Windows program with the ability to perform the most common word processing functions. The course also covers less frequently used features, such as creating tables, newsletters and mail merge. This course covers the content that prepares for Microsoft Office Specialist Word Core certification. (F,Sp,Su)

**CITA126 Microsoft Excel**

3

**Prerequisite:** Reading Level 5**Recommended:** Windows and keyboarding experience

This course provides introductory through intermediate level training in creating Excel spreadsheets and prepares the student to take the Excel Microsoft Office Specialist certification exam. Instruction includes creating worksheets and charts, using formulas and functions, sorting and querying a worksheet database, working with multiple worksheets, and using tools to collaborate with others. (F,Sp,Su)

**CITA130 Microsoft FrontPage**

3

**Prerequisite:** None**Recommended:** Reading Level 5 and Writing Level 6 and Windows experience and file management skills essential

This course provides Web authoring instruction using Microsoft FrontPage. Students will create and manage professional quality Web sites without writing HTML code. Web page development topics such as web page elements, hyperlinks, templates, tables, image maps, interactive forms, frames, subwebs, database interface, and web searches are also covered. (F,Sp,Su)

**CITA133 Microsoft Access Database**

3

**Prerequisite:** None**Recommended:** Windows and keyboarding experience and Reading Level 5

This course provides introductory through intermediate level training in the creation of database management systems using Microsoft Access. Instruction includes an introduction to Microsoft Access, database creation and maintenance, database querying, the generation of custom forms and reports, and integration of access with other programs. This course covers the content that prepares for the Microsoft Office Specialist Access Core certification. (F,Sp,Su)

**CITA140 Microsoft Outlook**

3

**Prerequisite:** None**Recommended:** Windows and keyboarding experience and Reading Level 5

Students will learn to use Outlook to manage typical business office communication needs. The course includes setting up the Outlook desktop information system, creating contacts, managing calendars and scheduling appointments. Students will also configure tasks, record journal entries and notes, organize and archive data, integrate Outlook with other Office applications. This course covers the content that prepares for Microsoft Office Specialist Outlook certification. (F,Sp,Su)

**CITA160 Using Project Management Software**

3

**Prerequisite:** None**Recommended:** Windows familiarity and Reading Level 5

Students will learn project management skills utilizing Windows-based project management software. Students work through all phases of setting up a project using multiple case studies that runs throughout the entire course. (F,Sp,Su)

**CITA219 Advanced Microsoft Word**

3

**Prerequisite:** Minimum 2.0 in CITA119 and Reading Level 5 and Writing Level 6

Advanced-level training in word processing using the Microsoft Word program. The instruction includes footnotes, tables, using and defining styles, using graphics, creating forms, and advanced font and text formatting, macro editing is also included. This course covers the content that prepares for Microsoft Office Specialist Word Expert certification. (F,Sp)

**CITA226 Microsoft Excel-Advanced**

3

**Prerequisite:** Minimum 2.0 in CITA126

In this course the student will learn skills to develop more advanced Excel applications. The student will work with logical functions and integrate Excel with other Windows Programs. Other topics include creating data tables, scenario management, using Excel Solver, and importing data into Excel. The course includes writing macros and working with the Visual Basic for Applications. This course prepares students for the Microsoft Specialist Excel Expert certification exam. (F,Sp,Su)

**CITA229 Special Topics in Applications .25-6****Prerequisite:** None

This course offers students the opportunity to learn new computer software application skills and knowledge. Specific up-to-date content will vary with each offering and will be related to the information technology professional. (F,Sp,Su)

**CITA233 Advanced Microsoft Access 2****Prerequisite:** Minimum 2.0 in CITA133 and Reading Level 5**Recommended:** CITF108 or equivalent

This course provides advanced level training in the creation of database management systems using Microsoft Access. Instruction includes working with web-enabled information, advanced custom reports and forms, advanced queries, advanced relationships, macros, switchboards, and introductions to the use of SQL and Visual Basic for Applications Code within Access. (F,Sp)

**CITD - Computer Information Technology/Database****CITD120 SQL Concepts 2****Prerequisite:** Reading Level 4 and Writing Level 4**Recommended:** Windows familiarity

This course introduces the student to Structured Query Language (SQL). Topics include relational database concepts, queries, special operators, and the join operation. Students will gain experience in ANSI standard SQL. (F,Sp,Su)

**CITD130 Introduction to Oracle: SQL 3****Prerequisite:** Reading Level 5**Recommended:** Windows familiarity

This class covers the concepts of relational databases and SQL. Students learn to create and maintain database objects; store, retrieve, and manipulate data. Topics covered in this course provide a strong preparation for the Oracle SQL Exam which is a part of the Oracle Internet Application Developer Certification. (F,Sp)

**CITD131 Oracle PL/SQL Program Units 3****Prerequisite:** Minimum 2.0 in CITD130

This course introduces the PL/SQL programming language. Students create PL/SQL blocks of application code, develop PL/SQL program units, develop database triggers, and use the Oracle-supplied package. Topics covered in this course provide a strong preparation for the Oracle PL/SQL Exam which is part of the Oracle Internet Application Developer Certification. (F,Sp)

**CITD227 Database Independent Study .25-4****Prerequisite:** Department Approval

This course includes special research, projects, or other independent study in Database. Students may enroll to update or enhance knowledge, skills, and competencies. Advanced students may explore topics related to, but not included in the curriculum. Grading criteria and course objectives are determined at the first meeting. (F,Sp,Su)

**CITD229 Special Topics in Database .25-6****Prerequisite:** None

This course offers students the opportunity to learn new Database Management skills and knowledge. Specific up-to-date content will vary with each offering and will be related to the Database professional. (F,Sp,Su)

**CITD250 Database Concepts 3****Prerequisite:** Minimum 2.0 in CITF110 and (CITP110 or CITP150) and Reading Level 5 and Writing Level 6

Students learn the functions of a database management system. The relational model and SQL are used. Normalization and database design are covered. The CODASYL model is discussed and emerging trends are studied. (F)

**CITF - Computer Information Technology/Foundations****CITF102 Computer Skills for Non-Majors 2****Prerequisite:** None

Surveys concepts and uses of software applications: word processors, spreadsheets, and database managers. Terminology, problem solving, and acquisition factors associated with personal computers are discussed. Hands-on computer use. (F,Sp,Su)

**CITF103 Internet Basics 2****Prerequisite:** None**Recommended:** Windows familiarity and Reading Level 3 and Writing Level 4

Designed to explore the potential uses of the Internet, students will complete hands-on, skill-based assignments and gain extensive experience utilizing a course management system to access and submit their course work. Students will develop basic skills using e-mail, search engines, modifying and posting a web page template. (F,Sp,Su)

**CITF106 Microsoft Windows Experience 1****Prerequisite:** None

This course introduces students to basic features of the Microsoft Windows operating system. Topics include using the Windows Desktop, menus, toolbars, and manage files. It is designed for the novice computer user desiring Windows experience to prepare for MS Office courses, online courses and general use of personal computers. (F,Sp,Su)

**CITF107 IC3 Certification 3****Prerequisite:** Reading Level 3 and Writing Level 4

This introductory level course provides a starting point for computer and Internet literacy skills sufficient for entrance into the job market or educational opportunities. Students prepare for the IC3 (Internet and Computing Core) certification gaining skill-based knowledge with both computer and Internet usage for enhanced productivity and marketability. (F,Sp,Su)

**CITF108 Microsoft Windows 2****Prerequisite:** None**Recommended:** Reading Level 5

This course is designed to provide students with a broad base of knowledge that is necessary for enhancing PC productivity through the efficient utilization of Microsoft Windows for file, application, and system use and management. Topics include the use of Windows Interface Objects, Utilities, Help features, Multimedia features, Internet features, closely related applications, and Applets (Windows XP). (F,Sp,Su)

**CITF110 Intro Computer Info Systems 3****Prerequisite:** Reading Level 4 and Writing Level 4

This course provides an introduction to computers, their role in managing business information systems, their influence on society, and their use in personal productivity. It includes a hands-on introduction to three major microcomputer tools: word processors, spreadsheets, and database management systems. (F,Sp,Su)

**CITF120 Operating Systems Concepts** 3**Prerequisite:** Reading Level 5**Recommended:** CITF110 and (CITP110 or CITP150)

The course covers what operating systems are, why they exist, what they do, and how they interface with the operators and programmers. Main memory management and processor scheduling are studied along with device and file management. Case studies of current operating systems are studied. (F,Sp,Su)

**CITF200 Information Systems and Problem Solving** 3**Prerequisite:** Reading Level 5 and Writing Level 6

This course chronicles the source of computer technology in science, explores the limitations of computer technology, examines the impact of technology in business organizations and society, and develops problem-solving techniques for use in conjunction with computer systems. Students will work individually and in teams, and make one group presentation. (F,Sp,Su)

**CITF227 Computer Foundations Independent Study** .25-4**Prerequisite:** Department Approval

This course includes special research, projects, or other independent study in a computer foundations area. Students may enroll to update or enhance knowledge, skills, and competencies. Advanced students may explore topics related to, but not included in the curriculum. Grading criteria and course objectives are determined at the first meeting. (F,Sp,Su)

**CITF229 Special Topics in Foundations** .25-6**Prerequisite:** None

This course offers students the opportunity to learn new computer foundational skills and knowledge. Specific up-to-date content will vary with each offering and will be related to the information technology professional. (F,Sp,Su)

**CITF240 IT Project Management** 3**Prerequisite:** Minimum 2.0 in (CITF110 or CITF200)

This course provides a comprehensive introduction to IT Project Management and covers the basic concepts of project scope, planning, execution, and closure. Students will develop project plans; track to those plans; manage ambiguity and risks; and make changes to the plan. This course covers the objectives for CompTIA Project+ certification. (Sp)

**CITF260 Systems Analysis and Design** 4**Prerequisite:** Minimum 2.0 in CITF110 and (CITP110 or CITP150) and Reading Level 5 and Writing Level 6

This course presents concepts and techniques used in the development of computer business application systems. The traditional approach for systems development is presented and compared to the approach used in a 4th Generation Environment. Techniques for structured analysis and project management techniques will be used. Recent developments in analysis, including Computer Assisted Software Engineering (CASE) and Object-Oriented Analysis will be introduced. (Sp)

**CITN - Computer Information Technology/Networking****CITN115 Home Technology Integration** 6**Prerequisite:** Reading Level 4 and Writing Level 4

This course provides an introduction to home technology integration with emphasis on the following: computer networking, audio/video, home security, industry standards, home lighting control, HVAC management, water system controls, home access controls and automated home features, low voltage wiring, and user interfaces. All topics are covered in lecture and lab experiments. (F,Sp,Su)

**CITN120 Introduction to Networking** 3**Prerequisite:** Reading Level 4 and Writing Level 4**Recommended:** CITF110

The student in this course learns the fundamentals of Local Area Networks (LANs) and related topics, including Wide Area Networking (WAN). Communication standards such as the OSI 7 layer model are introduced. Business telecommunications technologies will be introduced. (F,Sp,Su)

**CITN220 Networking Concepts** 3**Prerequisite:** Minimum 2.0 in (CITS120 and CITS130) or (CITS121 and CITS131) and Reading Level 5 and Writing Level 6

The course provides a comprehensive introduction to data communications systems, how they are integrated, and differences between the various networks and network carriers. Students learn terminology and major protocols to a level adequate to discuss data communication topics with other professionals. This course includes the exam that leads to Comp TIA Network+ certification. (F,Sp,Su)

**CITN227 Networking Independent Study** .25-4**Prerequisite:** Department Approval

This course includes special research, projects, or other independent study in Networking. Students may enroll to update or enhance knowledge, skills, and competencies. Advanced students may explore topics related to, but not included in the curriculum. Grading criteria and course objectives are determined at the first meeting. (F,Sp,Su)

**CITN229 Special Topics in Networking** .25-6**Prerequisite:** None

This course offers the opportunity to learn new computer networking skills and knowledge. Specific up-to-date content will vary with each offering and will be related to the networking profession. (F,Sp,Su)

**CITN230 Linux/UNIX Operating System** 3**Prerequisite:** Minimum 2.0 in (CITF120 and CITN120)

The student in this course learns to install, use and administer a Linux operating system, including shell programming, user account management, network operation, and application software for Linux. Practical hands-on training is used throughout. This course covers the content required for the student to prepare for the CompTIA Linux+ certification exam. (F,Sp)

**CITN250 Microsoft Network Server** 3**Prerequisite:** Minimum 2.0 in (CITF120 and CITN220)

The student in this course learns installation, security, and best administration techniques for Microsoft Servers. This course covers content required for students to help prepare for the Microsoft Server certification exam that leads to Microsoft Certified Professional certification (MCP). (F,Sp)

**CITN270 Novell Network Administration** 3**Prerequisite:** Minimum 2.0 in (CITF120 and CITN220)

The student in this course learns network administration techniques for Novell NetWare. Administration of NetWare and networking services and applications typically used on such a network are covered. Network security is stressed. This course covers the content required for students to prepare for the Certified Novell Administrator certification exam. (F,Sp)



**CITN280 IT Security Foundations** 3  
**Prerequisite:** Minimum 2.0 in CITN220  
**Recommended:** CITN230 or CITN250 or CITN270  
 This course provides a comprehensive introduction to IT security, covering basic concepts of data integrity, confidentiality, and availability, and focusing on relevant threats and countermeasures. Students will be prepared to evaluate Information Security needs of organizations and to develop policies addressing these needs. This course covers the objectives identified for CompTIA Security+ certification. (F,Sp)

### CITP - Computer Information Technology/Programming

**CITP110 Introduction to Computer Programming** 4  
**Prerequisite:** Reading Level 5  
 An introduction to computer programming which includes: structured program design; the basic programming control structures; user interface design; and file processing. A formalized problem solving method is used to create solutions to various applications. Students use appropriate design tools and write programs as part of their homework assignments. (F,Sp)

**CITP150 Introduction to VB.Net Programming** 4  
**Prerequisite:** None  
**Recommended:** Minimum 2.0 in CITP110  
 This course introduces students to programming concepts through the use of the Visual Basic.NET programming environment. Students learn to develop business applications by designing and creating a user interface and writing the necessary procedures. Students also learn and use logic development tools and object oriented programming terminology and techniques. (F,Sp)

**CITP190 Introduction to Programming in JAVA** 3  
**Prerequisite:** Minimum 2.0 in CITP110  
 This course introduces students to basic programming concepts using the Java Programming language. It introduces object-oriented programming methodology and features provided by the Java language. During the course, students will review sound programming practices and learn accepted Java programming procedures. Students will create and modify simple Java applications and applets. (F,Sp)

**CITP200 Programming Microsoft Access** 3  
**Prerequisite:** Minimum 2.0 in CITA233 (previously CABS232) and CITP110 (previously CISB114) or CITP150 (previously CISB179) or CISB119)  
 Advanced-level database management for the Access user who already has an advanced or good working knowledge of Access and wants to learn Visual Basic for Applications to program intelligent visual interface objects and automate database processes. (F,Sp)

**CITP227 Programming Independent Study** .25-4  
**Prerequisite:** Department Approval  
 This course includes special research, projects, or other independent study in Programming. Students may enroll to update or enhance knowledge, skills, and competencies. Advanced students may explore topics related to, but not included in the curriculum. Grading criteria and course objectives are determined at the first meeting. (F,Sp,Su)

**CITP229 Special Topics in Programming** .25-6  
**Prerequisite:** None  
 This course offers students the opportunity to learn new computer programming skills and knowledge. Specific up-to-date content will vary with each offering and will be related to the computer programming profession. (F,Sp,Su)

**CITP250 Advanced VB.NET Programming** 4  
**Prerequisite:** None  
**Recommended:** Minimum 2.0 in CITP150  
 This course is a second course in the VB.NET programming sequence and leads to the creation of functional Windows and Web based application programs. Topics include multitier application development, service base architecture, data validation, object oriented programming concepts, database access and programming, use of collections and developing help systems. (Sp)

**CITP290 Advanced JAVA Programming for Business** 4  
**Prerequisite:** Minimum 2.0 in CITP190 and CITW150 (previously CISB102)  
 This course introduces advanced Java Programming concepts. Students will use sound programming practices and accepted Java programming procedures. Students will create and modify computer programs as might be encountered in creating Java applications for industry. Topics covered in this course provide a strong preparation for the Sun Certified Programmer Certification. (F,Sp,Su)

**CITP295 Programming Internship** 3  
**Prerequisite:** Department Approval  
 This internship provides the student with on-the-job experience as a computer programmer. Two hundred hours of experience at a local computer information systems site is required. The student is expected to write or maintain programs, create documentation, learn job control commands, and work on interactive systems. (F,Sp,Su)

### CITS - Computer Information Technology/Support

**CITS100 Schematic Drawing** 1  
**Prerequisite:** Reading Level 5  
 A nonmathematical beginning course in electronics covering electronic component recognition, reading schematics, freehand and computer drawing of schematic diagrams, and relating schematic diagrams to electronic circuits. (F,Sp,Su)

**CITS121 Computer Support: A+ Essentials** 3  
**Prerequisite:** Reading Level 5 and Math Level 3  
 This course provides students with the skills necessary to diagnose and correct problems that computer users encounter. The student receives practical, hands-on experience in installing, maintaining, and troubleshooting computer hardware and software. This course includes the CompTIA A+ Essentials exam that is one half of the requirements for the CompTIA A+ Essentials certification. (F,Sp)

**CITS131 Computer Support: A+ Technician** 3  
**Prerequisite:** Minimum 2.0 in CITS121 or concurrently and Reading Level 5 and Math Level 3  
 This course provides students with a more in-depth technical discussion of the A+ Certification Exam objectives augmented through hands-on exercises. Emphasis is placed on the communication skills and the professionalism needed to become a successful Computer Support Technician. This course includes the CompTIA A+ IT Technician elective exam that is one half of the requirements for the CompTIA A+ certification. (F,Sp)

**CITS160 Logic Problems Analysis** 3  
**Prerequisite:** Reading Level 5 and Writing Level 2 and Math Level 4  
**Recommended:** Math Level 5  
 Course topics include manipulation of formulas used in electronics, basic gate operation, truth tables, Boolean algebra, binary, octal and hexadecimal base number systems. (F,Sp,Su)

- CITS161 Soldering and Desoldering** 1  
**Prerequisite:** None  
 A basic soldering course. Topics include soldering electronic components to printed circuit boards and surface mount soldering. Desoldering components using solder wick, vacuum desoldering tools and equipment and printed circuit board repair. Students assemble a digital multimeter as a final course project. (F,Sp,Su)
- CITS170 Basic Electronics for PC Repair** 6  
**Prerequisite:** Reading Level 5 and Writing Level 2 and Math Level 4  
**Recommended:** CITS160 (previously ELCT160) or Math Level 5  
 This course begins with basic electricity concepts and discusses basic electricity, basic electronics, electric circuits, diodes, transistors, digital devices, and digital circuits. Course work includes lab exercises each week. (F)
- CITS171 PC Hardware Operation** 6  
**Prerequisite:** None  
 A digital electronics and computer systems course. Course topics include electronic, magnetic and optical storage, memory management, micro-processors, I/O devices, computer system operation, motherboards, and an introduction to data communications and LANs. Coursework includes lab exercises each week. (Sp)
- CITS175 Troubleshooting Computer Systems** 3  
**Prerequisite:** Minimum 2.0 in CITS170 (previously ELCT170) or concurrently  
 This is a troubleshooting and repair course. Course topics include basic troubleshooting techniques, unit and board swap computer troubleshooting, and computer preventive maintenance. This is primarily a lab course. (Sp)
- CITS180 Electronic Test Equipment Operation** 3  
**Prerequisite:** Reading Level 5 and Writing Level 2  
 A basic test equipment course. This course introduces the student to the operation of electronics test equipment including VOM, DMM, oscilloscopes, storage oscilloscopes and basic digital test equipment. Lab work is emphasized. (F)
- CITS181 Computer Diagnostic Software** 2  
**Prerequisite:** Minimum 2.0 in CITS171 or concurrently  
 Topics include the computer POST test, software diagnostic programs, hardware diagnostic cards, and other computer troubleshooting equipment. Coursework includes lab exercises each week. (Sp)
- CITS227 Computer Support Independent Study** .25-4  
**Prerequisite:** Department Approval  
 This course includes special research, projects, or other independent study in Computer Support. Students may enroll to update or enhance knowledge, skills, and competencies. Advanced students may explore topics related to, but not included in the curriculum. Grading criteria and course objectives are determined at the first meeting. (F,Sp,Su)
- CITS229 Special Topics in Computer Support** .25-6  
**Prerequisite:** None  
 This course offers the opportunity to learn new computer support skills and knowledge. Specific up-to-date content will vary with each offering and will be related to the computer support profession. (F,Sp,Su)

- CITS285 IT Professional Internship** 2-3  
**Prerequisite:** Department Approval  
 Designed to be the culmination of information systems students' associate degree program. It is intended to give the student live work experiences as a specialist in computer systems or support. It is to be taken at the end of the student's curriculum as final preparation for entering the job market. (F,Sp,Su)

### CITW - Computer Information Technology/Web

- CITW150 Internet Literacy** 3  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** Windows familiarity  
 This course teaches hands-on skills and builds knowledge for Internet professionals. It is designed to explore the potential uses of the Internet for business and communication including the use of email, search engines, discussion boards, and other Internet applications including web page development. This course also discusses the rapidly changing world of the Internet. (F,Sp,Su)
- CITW160 Developing Pages for the Web** 3  
**Prerequisite:** (Minimum 2.0 in CITW150 or concurrently) or (minimum 2.0 in ARTS173)  
 This course explores techniques of web page construction including HTML and the appropriate use of multimedia elements. Students will develop individual websites that progress to include elements such as graphics and multimedia. Within in team, students will demonstrate their understanding and application of the concepts introduced during the semester. (F,Sp,Su)
- CITW165 Advanced Web Development** 3  
**Prerequisite:** Minimum 2.0 in CITW160  
**Recommended:** Reading Level 5 and Writing Level 6  
 This course explores innovative techniques of web page construction using newer, more flexible technologies for added web site functionality. Students create several industry-compliant web pages that respond to user input given through the browser and manage an interactive web site using these technologies. (F,Sp)
- CITW175 Web Site Management** 3  
**Prerequisite:** Minimum 2.0 in CITW160  
**Recommended:** Reading Level 5 and Writing Level 6  
 This course presents a comprehensive introduction to web site planning, promotion, security, and legal issues associated with web site management. Students explore web-based communication tools, domain names, web site hosting, shopping cart software and manage an individual web site to demonstrate concepts presented throughout the semester. (F,Sp)
- CITW180 ASP.Net Web Development** 4  
**Prerequisite:** Minimum 2.0 in CITW160 and (CITP150 or CITP250)  
 This course provides instruction in building web sites using Microsoft ASP.NET. Students create dynamic, flexible, and interactive web pages that interact with a database. Students explore server controls, validation controls, security issues, user authentication, and manage an individual web site to demonstrate concepts presented throughout the semester. (F,Sp)

**CITW190 Web Portfolio** 2**Prerequisite:** Minimum 2.0 in CITW160**Recommended:** Windows familiarity

This course may be used as the capstone for Internet for Business Certificate of Achievement. Students will explore employment opportunities matching the skills developed in the program. A web portfolio is developed by review and evaluation. A resume is created in both print and digital formats. (Sp)

**CITW227 Web Independent Study** .25-4**Prerequisite:** Department Approval

This course includes special research, projects, or other independent study in computer web skills. Students may enroll to update or enhance knowledge, skills, and competencies. Advanced students may explore topics related to, but not included in the curriculum. Grading criteria and course objectives are determined at the first meeting. (F,Sp,Su)

**CITW229 Special Topics in Web and Internet** .25-6**Prerequisite:** None

This course offers students the opportunity to learn new computer web skills and knowledge related to the World Wide Web. Specific up-to-date content will vary with each offering and will be related to the computer web profession. (F,Sp,Su)

**CIVL - Civil Technology****CIVL100 Introduction to Civil Technology** 3**Prerequisite:** Reading Level 3 and Writing Level 2 and Math Level 4

Students explore programs of study, the nature of work performed by technicians, and opportunities available in civil technology fields. Topics include site layout, surveying, types of materials, computer methods, and tools used to address current issues in civil technology. Field trips to private (engineering consulting) and public (MDOT) offices are conducted. (F)

**CIVL101 Civil Drafting** 3**Prerequisite:** Minimum 2.5 in (METD100 (previously CADD100) or LAND100) or Drafting Placement Test 80%

This course emphasizes plotting land surveying descriptions, traverses, contours, profiles, cross-sections, templates, and the three views required in highway work. Students will learn how to read basic highway plans and make sketches from field notes. (F,Sp)

**CIVL120 Surveying** 4**Prerequisite:** Minimum 3.0 in MATH114 or Math Level 5

Introduces students to surveying technology and the use of the latest equipment. Emphasis is placed on developing skills in operation and the proper handling of high-tech equipment used in the surveying business. Good field work habits and office engineering are covered. (F,Sp)

**CIVL124 Route Survey** 4**Prerequisite:** Minimum 2.5 in CIVL120

This course includes surveying computations in such areas as horizontal curves, vertical curves, spirals and data needed for highway construction layout. Also includes work with surveying computation software and fieldwork with total stations. (Sp)

**CIVL131 Traffic Technology** 3**Prerequisite:** None

This course introduces basic principles of traffic engineering design, signing and pavement marking, traffic signalization and how these elements are used to improve motorists' safety. Emphasis is placed on the use of these devices in and around construction zones. Basic concepts on traffic flow and capacity analysis will be presented. (F)

**CIVL132 Construction Materials** 4**Prerequisite:** Minimum 3.0 in MATH114 or Math Level 5

Students will study techniques and equipment used in constructing bridges, buildings, highways and pipelines. Deals with determination of properties of aggregates, concrete and other bituminous materials. Teaches methods of designing concrete mixes for different uses and methods of sampling and testing. (Sp)

**CIVL135 Soils Technology** 3**Prerequisite:** Minimum 3.0 in MATH114 or Math Level 5

Exploring, sampling, testing and evaluating subsurface materials and their effect on construction are covered in this course. Includes an introduction to methods of subsurface drainage, soil classifications and physical properties of soils; and discussion, demonstration and performance with equipment used in density testing. (F)

**CIVL136 Hydrology and Highway Technology** 5**Prerequisite:** Minimum 3.0 in CIVL131 and (minimum 3.0 in MATH114 or Math Level 5)

This course is an introduction to highway inventory, planning, organization, rudiments of finance, geometric design, earthwork, and drainage structures. Emphasis is placed on these elements as components of final highway plans. Analysis of precipitation and the attendant runoff and recharge will be introduced. (Sp)

**CIVL141 Site Inspection** 3**Prerequisite:** Reading Level 3 and Writing Level 2 and Math Level 4

This course introduces students to the principles of construction inspection including safety practices (MIOSHA), legal aspects, reporting, and applicable specifications, codes and standards. (F)

**CIVL142 Construction Specifications** 3**Prerequisite:** Reading Level 4 and Writing Level 2 and Math Level 4

This course examines the content of construction contracts, as-built drawings, and other documents required as part of the design and construction of various building projects. General conditions, specifications, organization, addendums, bulletins, change orders, and terminology, and the roles of site inspector, contractor and engineer are discussed. (F)

**CIVL143 Site Design/Layout for Civil Technicians** 3**Prerequisite:** Minimum 2.0 in (CIVL141 and CIVL142) and Reading Level 3 and Writing Level 2 and Math Level 4

In this course, students apply road and land development procedures, and interpret survey data in assembling sets of construction drawings. Topics include developing cross sections, road profiles, and utility layouts. (F,Sp)

**CIVL170 Special Topics in Civil Technology** .25-8**Prerequisite:** None

This course offers students the opportunity to learn new or advanced skills in Civil Technology and other related topics. Specific content may vary with each offering and will be related to the Civil Technology Program and profession. (F,Sp,Su)

<b>CIVL200 Civil Mathematics</b>	4	<b>CJUS104 Theory of Patrol</b>	3
<b>Prerequisite:</b> Minimum 3.0 in MATH114 or Math Level 5		<b>Prerequisite:</b> Reading Level 5 and Writing Level 4	
This course applies differential calculus and integral calculus to practical technical problems. Topics include related rates, maximum and minimum problems and areas under curves. (F,Sp)		<b>Recommended:</b> CJUS101	
		This course is designed to introduce the student to the concepts and theories of patrol and the delivery of police services. (F,Sp,Su)	
<b>CIVL225 Civil Technology Independent Study</b>	1-4	<b>CJUS106 Introduction to Juvenile Justice</b>	3
<b>Prerequisite:</b> None		<b>Prerequisite:</b> Reading Level 5 and Writing Level 4	
<b>Restriction:</b> Civil Technology Majors		This course emphasizes the legal foundation, as defined by Michigan law, upon which the criminal justice practitioner must rely in dealing with the juvenile offender and the juvenile victim. In addition, this course will introduce the student to the juvenile offender. (F,Sp,Su)	
Students are allowed to undertake special research projects to apply to their professional experience and academic major. A minimum of 48 hours of work per credit is required and the completion of a written project report. This course cannot be audited. (Sp)		<b>CJUS126 Juvenile Offenders and Their Families</b>	3
		<b>Prerequisite:</b> Minimum 2.0 in CJUS106 or concurrently	
<b>CIVL241 Statics/Strength of Materials</b>	5	This course takes an in-depth look at the diverse nature of juvenile offenders and their family backgrounds. Issues impacting juvenile behavior such as gender, gangs, drugs, and disabilities will be discussed. (F,Sp,Su)	
<b>Prerequisite:</b> Minimum 2.5 in MATH114 or Math Level 5		<b>CJUS130 Local Detention</b>	3
Structural terminology and concepts are introduced. General behavior of structural members in compression, stress, strain, creep, fatigue, yield, tension, shear, bending and torsion due to different loading conditions are studied. Loads and forces, conditions of stability and equilibrium in structural frames and free body analysis for reactions and member forces are considered. (F,Sp)		<b>Prerequisite:</b> Reading Level 5 and Writing Level 4	
<b>CIVL271 MDOT Internship I</b>	3	This course explains operations of local detention facilities and their unique role in the criminal justice system. Emphasis is placed on Michigan jail and lockup operations, as well as the organization, management, policy environment, and emerging issues confronting American jails. Differences in jail and prisons regarding operations and differing clienteles are also covered. (F,Sp)	
<b>Prerequisite:</b> Department Approval		<b>CJUS131 Introduction to Corrections</b>	3
Provides first-year civil technology students with practical work experience in their career field. The student works for the Michigan Department of Transportation (MDOT) in jobs related to highway and bridge construction as well as attending in-class instruction. Enrollment is restricted to MDOT Civil Technology students. (Su)		<b>Prerequisite:</b> Reading Level 5 and Writing Level 4	
<b>CIVL272 MDOT Internship II</b>	3	Introduction to agencies and processes within the correctional system. An examination of correctional officer behavior, corrections legislation, the courts, correctional institutions and their operation, and administration. Includes overview of history sentencing, probation, parole, and community corrections. This course is required for the corrections officer vocational certificate. (F,Sp)	
<b>Prerequisite:</b> Department Approval		<b>CJUS133 Juvenile Residential Services</b>	3
Provides second-year civil technology students with practical work experience in their career field. The student works for the Michigan Department of Transportation (MDOT) in jobs related to highway and bridge construction, as well as attending in-class instruction. Enrollment is restricted to MDOT Civil Technology students. (F,Su)		<b>Prerequisite:</b> Minimum 2.0 in CJUS106 or concurrently	
		All aspects of court-placement of juveniles in residential facilities will be examined. Staffing and operations of both public and private agencies will be discussed, focusing both on treatment and detention issues. (F,Sp,Su)	
<b>CJUS - Criminal Justice</b>			
<b>CJUS101 Introduction to Criminal Justice</b>	3	<b>CJUS134 Probation and Parole</b>	3
<b>Prerequisite:</b> Reading Level 5 and Writing Level 4		<b>Prerequisite:</b> Minimum 2.0 in (CJUS101 or CJUS131) or concurrently	
A survey course designed to provide students with a current, coordinated, and comprehensive overview of criminal justice as an institution and as a system. Emphasizes historical, philosophical, constitutional, and organizational perspectives. (F,Sp,Su)		An introductory level course in probation and parole with strong emphasis on counseling, interviewing skills, and supervision techniques. Students will also learn the mechanics of writing violation, progress, and pre-sentence reports. (F,Sp,Su)	
<b>CJUS102 Crime Causes and Conditions</b>	3	<b>CJUS135 Legal Issues in Corrections</b>	3
<b>Prerequisite:</b> Reading Level 5 and Writing Level 4		<b>Prerequisite:</b> Minimum 2.0 in (CJUS130 or CJUS131) or concurrently	
Why do some individuals pursue a life of crime? This course introduces and analyzes the past, present, and future of criminology. Sociological, psychological, and biological factors are examined to determine their interaction with and impact on criminal behavior. (F,Sp,Su)		Study of current constitutional, federal and state law as it pertains to penal institutions, inmates, and correctional employees. The course will provide students with insight into policy considerations behind state and federal law, legal process, court decisions, and inmate rights. This course is required for the correctional officer vocational certificate. (F,Sp,Su)	
<b>CJUS103 Criminal Law</b>	3		
<b>Prerequisite:</b> Minimum 2.0 in CJUS101 or concurrently			
Study of substantive criminal law. Includes classification of crimes, common law concepts, elements of specific crimes, and discussion of current trends in criminal law nationally and locally. (F,Sp,Su)			

<b>CJUS201 Criminal Justice Organization/Admin</b>	<b>3</b>	<b>CJUS251 Correctional Clients</b>	<b>3</b>
<b>Prerequisite:</b> Minimum 2.0 in CJUS101		<b>Prerequisite:</b> Minimum 2.0 in (CJUS130 or CJUS131) or concurrently	
Examines the primary concepts of criminal justice organization and administration emphasizing processes and theories, communications, leadership, personnel, budgeting, planning, information management, and community relations. (F,Sp,Su)		Emphasis is placed on the needs, identities and development of the recipient of correctional services. Students will gain insight into the behavior and motivations of the corrections client and learn intervention strategies. This course is required for the correctional officer vocational certificate. (F,Sp,Su)	
<b>CJUS203 Criminal Procedure</b>	<b>3</b>	<b>CJUS255 Human Relations/Criminal Justice</b>	<b>3</b>
<b>Prerequisite:</b> Minimum 2.0 in CJUS103		<b>Prerequisite:</b> Minimum 2.0 in (CJUS101 or CJUS130 or CJUS131) or concurrently and Reading Level 5	
Study of criminal procedural law. Includes laws of arrest, search and seizure, and admissions and confessions; suspect identification; and rules of evidence. (F,Sp)		This course focuses on understanding those aspects of interpersonal relations most directly linked to attainment of organizational and individual goals in work settings. This course is required for the correctional officer vocational certificate. (F,Sp,Su)	
<b>CJUS204 Criminal Investigation</b>	<b>4</b>	<b>CJUS260 Criminal Investigation &amp; Procedures</b>	<b>3</b>
<b>Prerequisite:</b> Reading Level 5 and Writing Level 4		<b>Prerequisite:</b> Admission to Police Academy	
<b>Recommended:</b> Minimum 2.0 in CJUS103		<b>Co-requisite Course(s):</b> CJUS261 and CJUS262 and CJUS263 and CJUS264 and CJUS265 and CJUS269 and PFFT114 and PFHW100	
Examines the fundamentals of criminal investigation such as crime scene procedures, collection and preservation of physical evidence, interviewing, interrogation, and latent investigation. (F,Sp)		Designed for hands-on, practical instruction in the following areas: crime scene processing, on-scene preliminary investigation, witness interviewing, suspect identification, latent prints, photography, child abuse, sexual assault, narcotics, and preparation for court. (F,Sp)	
<b>CJUS205 Policing into the 21st Century</b>	<b>3</b>	<b>CJUS261 Michigan Criminal Law &amp; Procedure</b>	<b>4</b>
<b>Prerequisite:</b> Minimum 2.0 in CJUS101		<b>Prerequisite:</b> Admission to Police Academy	
This course is designed to provide the student with an understanding of the philosophy of community policing. As such, the components and processes involved in the implementation of non-traditional policing methods, as well as the development of a partnership between the community and the police, will be examined. (F,Sp)		<b>Co-requisite Course(s):</b> CJUS260 and CJUS262 and CJUS263 and CJUS264 and CJUS265 and CJUS269 and PFFT114 and PFHW100	
<b>CJUS210 Introduction to Forensic Science</b>	<b>3</b>	Designed for hands-on, practical instruction in criminal law and procedure as it pertains to law enforcement in the state of Michigan. Topics include crimes against persons and property, regulatory crimes, public order crimes, juvenile law, admissions/confessions, laws of arrest, search and seizure, and suspect identification. (F,Sp)	
<b>Prerequisite:</b> Reading Level 5 and Writing Level 4		<b>CJUS262 Patrol Procedures and Tactics</b>	<b>4</b>
Forensic Science is the application of scientific methods in the analysis of physical evidence generated by criminal activity. This introductory course will cover four major aspects of physical evidence from actual criminal cases including crime scene investigation; the collection, preservation and value of physical evidence; the forensic analysis of physical evidence; and expert testimony. (F,Sp)		<b>Prerequisite:</b> Admission to Police Academy	
<b>CJUS242 Unarmed Defense</b>	<b>3</b>	<b>Co-requisite Course(s):</b> CJUS260 and CJUS261 and CJUS263 and CJUS264 and CJUS265 and CJUS269 and PFFT114 and PFHW100	
<b>Prerequisite:</b> None		The course is designed to identify and utilize proper patrol techniques and procedures necessary for a police officer to function safely and effectively. Topics include preparation for patrol, types of patrol, responding to crimes in progress, roadblocks, civil process, handling abnormal persons, and officer survival. (F,Sp)	
Hands-on techniques to prepare students to properly and effectively handle law enforcement related physical confrontations. Includes use of force decision-making skills, pressure points, control holds, and handcuffing. (F,Sp,Su)		<b>CJUS263 Standard First Aid</b>	<b>2</b>
<b>CJUS245 Report Writing in Criminal Justice</b>	<b>3</b>	<b>Prerequisite:</b> Admission to Police Academy	
<b>Prerequisite:</b> Minimum 2.0 in (CJUS101 or CJUS131) and (CJUS103 or CJUS135) and Reading Level 5 and Writing Level 4		<b>Co-requisite Course(s):</b> CJUS260 and CJUS261 and CJUS262 and CJUS264 and CJUS265 and CJUS269 and PFFT114 and PFHW100	
This course is designed to meet the needs of criminal justice writing. Components include grammar, punctuation, sentences, paragraphs, styles of writing, and proper documentation of work effort. The course includes frequent writing practice. (F,Sp,Su)		Designed to identify the roles and responsibility of a law enforcement officer at the scene of a medical emergency based upon American Red Cross standard first aid and CPR training. (F,Sp)	
<b>CJUS250 Correctional Institutions</b>	<b>3</b>	<b>CJUS264 Report Writing in Law Enforcement</b>	<b>2</b>
<b>Prerequisite:</b> Minimum 2.0 in CJUS131 or concurrently		<b>Prerequisite:</b> Admission to Police Academy	
This course examines the historical development of corrections institutions in the United States. The organizational structure, purpose, programs, security aspects, and prisoner due-process rights, as well as the future of institutions will be examined. This course is required for the correctional officer vocational certificate. (F,Sp,Su)		<b>Co-requisite Course(s):</b> CJUS260 and CJUS261 and CJUS262 and CJUS263 and CJUS265 and CJUS269 and PFFT114 and PFHW100	
		This course is designed to prepare the student to effectively and efficiently write a proper police report that will serve as a basis for the issuance of a warrant and court prosecution. Topics include obtaining information, basic English skills, criminal justice terminology, and proper formatting. (F,Sp)	

<b>CJUS265 Highway Traffic Operations</b>	<b>5</b>
<b>Prerequisite:</b> Admission to Police Academy	
<b>Co-requisite Course(s):</b> CJUS260 and CJUS261 and CJUS262 and CJUS263 and CJUS264 and CJUS269 and PFFT114 and PFHW100	
This course is designed to familiarize the student with the proper procedures for traffic control and enforcement. Emphasizes state motor vehicle laws and procedures, arrests and citations, O.U.I.L., and accident investigation. (F,Sp)	
<b>CJUS269 Police Skills:Firearms/Def.Tactics/Drive</b>	<b>8</b>
<b>Prerequisite:</b> Admission to Police Academy	
<b>Co-requisite Course(s):</b> CJUS260 and CJUS261 and CJUS262 and CJUS263 and CJUS264 and CJUS265 and PFFT114 and PFHW100	
This course is designed to assist law enforcement students in developing and improving their skills in firearms, subject control, and emergency vehicle operations. This course involves both classroom and hands-on training. (F,Sp)	
<b>CJUS281 Directed Independent Study</b>	<b>1-3</b>
<b>Prerequisite:</b> Department Approval	
Sixteen hours of study and research are assigned per credit. Students are given criminal justice related research assignments that will introduce them to research procedures and resources. (F,Sp,Su)	
<b>CJUS285 Law Enforcement Internship</b>	<b>2</b>
<b>Prerequisite:</b> Department Approval	
Sixteen eight-hour shifts are scheduled with an approved police department. Written reports are required. (F,Sp,Su)	
<b>CJUS286 Juvenile Internship I</b>	<b>3</b>
<b>Prerequisite:</b> Minimum 2.0 in CJUS106 or concurrently and Department Approval	
The student will be placed in a local program dealing with young people from at risk populations. A classroom component includes preparation for job interviews and other skill-building exercises for working in the juvenile justice field. Written reports are required. (F,Su)	
<b>CJUS287 Juvenile Internship II</b>	<b>3</b>
<b>Prerequisite:</b> Minimum 2.0 in CJUS286 and (CJUS133 or concurrently) and Department Approval	
<b>Recommended:</b> For Juvenile Care Worker students	
The student will be placed in a residential facility with juveniles who have been adjudicated by the court to be detained in a secure environment for treatment and rehabilitation purposes. (F,Sp,Su)	
<b>CJUS288 Corrections Internship</b>	<b>3</b>
<b>Prerequisite:</b> Department Approval	
The student will be placed in a local or state corrections facility that will allow him or her to experience many facets of correction operations. Weekly written reports are required and periodic meetings are mandatory. A minimum of 160 hours is required. (F,Sp,Su)	
<b>CJUS295 Criminal Justice Special Topics</b>	<b>.25-8</b>
<b>Prerequisite:</b> Determined by Unit Section	
This course offers students the opportunity to learn new criminal justice career skills and knowledge. Specific up-to-date content will vary with each topic presented and will be related to criminal justice careers. (F,Sp,Su)	

**CPSC - Computer Science**

<b>CPSC120 Introduction to Computers</b>	<b>3</b>
<b>Prerequisite:</b> Reading Level 5 and Writing Level 4	
In this survey course, the student learns of the application of computers in society, considers their social and economic implications, examines questions of privacy and security, and considers recent advances in computer technology. In addition, the student is exposed to beginning instruction and practice in word processing, spreadsheet and database applications, programming, and user networks. (F,Sp,Su)	
<b>CPSC131 Technical Problem Solving Using MATLAB</b>	<b>3</b>
<b>Prerequisite:</b> (Minimum 2.0 in MATH151 or MATH161 or concurrently) and Reading Level 5 and Writing Level 6	
Use of mathematical software (primarily MATLAB) for technical problem solving in engineering, mathematics and science. Development and use of mathematical models combining computation, visualization, and programming to allow problem solving in many different areas. (F,Sp)	
<b>CPSC230 Algorithms and Computing with C++</b>	<b>4</b>
<b>Prerequisite:</b> (Minimum 2.0 in MATH151 or MATH161 or concurrently) and Reading Level 5 and Writing Level 4	
This course establishes fundamental computational techniques required for continuing study in computer science. Students design, implement and test C++ programs to solve a wide range of problems. Topics include program development, functions, control structures, text file operations, data types/classes, recursion, STL string/vector<T> classes, arrays, pointer variables, and elementary linked lists. (F,Sp,Su)	
<b>CPSC231 Computing and Data Structures</b>	<b>4</b>
<b>Prerequisite:</b> Minimum 2.0 in CPSC230 and Reading Level 5 and Writing Level 4	
Data abstraction and related theory for representation and access of information using C++. Algorithms and abstract data structures such as the stack, queue, binary search tree, heap and priority queue are studied. (F,Sp)	
<b>CPSC260 Computer Science Structures</b>	<b>4</b>
<b>Prerequisite:</b> Minimum 2.0 in CPSC230 and (MATH151 or MATH161) and Reading Level 5 and Writing Level 4	
Introduction to logical and algebraic structures and techniques required for further study in computer science. Topics include statement logic and proof techniques, combinatorics, algorithms and their analysis, directed and undirected graphs and their matrix representations, Boolean algebras and logic networks, regular expressions, finite-state machines, and Turing machines. (Sp)	
<b>CPSC295 Independent Study in Computer Science</b>	<b>1-4</b>
<b>Prerequisite:</b> Department Approval	
An opportunity for self-directed learners to explore topics related to, but not taught in the curriculum. Students spend at least two hours per week for each credit. A detailed proposal must be submitted by the student for approval by the Department and supervising instructor prior to registration. (F,Sp,Su)	
<b>CUAI - Credit Union Accounting and Insurance</b>	
<b>CUAI102 Credit Union Accounting</b>	<b>3</b>
<b>Prerequisite:</b> None	
This course emphasizes those areas of financial accounting relevant to external reporting by credit unions. (Sp)	

**CUMA - Credit Union Management**

**CUMA100 Introduction to Credit Union Operations 3**

**Prerequisite:** None

This course provides students with an overview of the credit union movement, its position in the financial services industry, and basic credit union operating procedures. Directed toward staff, management, and elected officials of credit unions who wish to increase their knowledge of both the credit union movement and operations. (F,Sp)

**CUMA200 Credit and Collections 3**

**Prerequisite:** None

This course covers the fundamentals of the credit/collection industry. Emphasis is placed on learning the basics of the credit decision-making process and the collection of past due loans. The course is designed for credit union personnel who want to better understand the relevant laws and regulations of credit union credit and collections. (F,Sp)

**CUMA215 Business Law for Credit Unions 3**

**Prerequisite:** None

This course covers fundamental principles of law applicable to credit union personnel and will prepare students to perform the legal responsibilities of their jobs more knowledgeably. Course content includes study of contracts, personal and real property, torts, crimes, and the nature and sources of law as related to credit union operations. (F,Sp)

**DANC - Dance**

**DANC101 Beginning Ballet 2**

**Prerequisite:** None

Designed for students with no dance experience. Included are examination of the history of Ballet, dance anatomy and injury prevention in addition to basic barre and center floor combinations, alignment principles, ballet vocabulary and steps, and elementary combinations of ballet technique for the beginning student. (F,Sp,Su)

**DANC102 Beginning Modern 2**

**Prerequisite:** None

Designed for the students with no dance experience. Basic examination of the history of Modern dance, training in dance anatomy, injury prevention, alignment techniques, spatial relationships, and elementary combinations will be explored. Improvisation will be used throughout the course to assist in developing kinesthetic, spatial, cognitive, and physical awareness. (F,Sp,Su)

**DANC103 Beginning Jazz 2**

**Prerequisite:** None

Designed for the student with no dance experience. Included are examination of the history of Jazz, training in dance anatomy and injury prevention. Basic alignment, warm-up, and isolations in jazz dance technique for beginning dance students are emphasized in addition to spatial relationships and rhythm. (F,Sp)

**DANC104 Beginning Tap 2**

**Prerequisite:** None

Designed for the student with no dance experience. Included are an examination of the history of Tap as well as training in dance anatomy and injury prevention. Basic vocabulary, steps, combinations, and rhythms are explored in addition to spatial relationships. (F,Sp)

**DANC105 Beginning Jazz-Summer 1**

**Prerequisite:** None

This course is designed for the student with no dance experience. Topics included are: basic alignment, warm-up, and isolation in jazz dance technique for beginning dance students. Spatial relationships and rhythm are emphasized. (Su)

**DANC106 Beginning Tap-Summer 1**

**Prerequisite:** None

This course is designed for the student with no dance experience. Topics included are: basic tap origins, vocabulary, steps, combinations, and rhythms for the beginning dance students. Basic alignment training techniques, spatial relationship, and elementary combinations are explored. (Su)

**DANC107 Beginning Ballet-Summer 1**

**Prerequisite:** None

This course is designed for the student with no dance experience. Topics included are: basic alignment principles, ballet vocabulary and steps, and elementary combinations of ballet technique for the beginning dance student. Basic barre and center floor combinations will be included. (Su)

**DANC108 Beginning Modern-Summer 1**

**Prerequisite:** None

This course is designed for the student with no dance experience. Topics included are: basic alignment training techniques, spatial relationships, and elementary combinations. Some improvisation will be used throughout the course to assist in developing kinesthetic, spatial, cognitive, and physical awareness. (Su)

**DANC161 Dance Repertory .5-1**

**Prerequisite:** Department Approval

This course is designed for the student who has reached a level of dance technique that will adequately support his/her participation in the concert process. This process includes auditions, rehearsals, and public performances in the ballet genre and concentrates on memorization, projection, and musicality. (Sp)

**DANC201 Intermediate Ballet 3**

**Prerequisite:** Dance Audition for Intermediate Ballet

This course includes a continuation of movement theory, alignment, increased training practices, vocabulary, and longer combinations. Emphasis is placed on center floor transitional techniques, dance dynamics, and development of personal movement style in preparation for performance. Intermediate concepts in Ballet history and choreography are explored. Pointe shoes are optional. (F,Sp,Su)

**DANC202 Intermediate Modern 3**

**Prerequisite:** Dance Audition for Intermediate Modern

This course includes a continuation of alignment training, spatial relationships, choreography, improvisation, concepts in Modern Dance history, vocabulary, and longer combinations. Emphasis is placed on center floor transitional techniques, dance dynamics, examination and practice of movement qualities, and development of a personal movement style in preparation for performance. (F,Sp,Su)

**DANC203 Intermediate Jazz** 3**Prerequisite:** Dance Audition for Intermediate Jazz

This course includes a continuation of alignment training, movement theory, increased training practices, isolations, and longer combinations. Emphasis is placed on jazz dance dynamics, center floor transitional techniques, and development of a personal movement style in preparation for performance. Intermediate concepts in Improvisation, Choreography and Jazz Dance History are explored. (F,Sp)

**DANC204 Intermediate Tap** 3**Prerequisite:** Dance Audition for Intermediate Tap

This course includes a continuation of tap vocabulary, steps, combinations, and rhythms. Emphasis is placed on increased complexity in rhythms and combinations, and development of a personal movement style in preparation for performance. Intermediate concepts in the history of tap, improvisation and choreography are explored. (F,Sp)

**DANC207 Intermediate Ballet-Summer** 1.5**Prerequisite:** Dance Audition for Intermediate Ballet

This course includes a continuation of movement theory, alignment, increased training practices, vocabulary, and longer combinations. Emphasis is placed on center floor transitional techniques, dance dynamics and development of a personal movement style in preparation for performance. Intermediate concepts in Ballet history and choreography are explored. Pointe shoes are optional. (Su)

**DANC290 Dance Studio Internship** 2**Prerequisite:** Department Approval

Designed for dance students to work with a local professional dance company/dance school. Opportunities include: Advanced dance classes with company members, learning company choreography, experience teaching methodologies, exposure to business aspects of a studio and the arts administrative processes including grant writing. May be repeated three times for credit. (F,Sp)

**DENT - Dental Hygiene****DENT140 Oral Histology & Embryology** 2**Prerequisite:** Admission to Dental Hygienist Program**Co-requisite Course(s):** DENT142 and DENT144 and DENT146 and DENT148

This course provides an introduction and description of general histology and embryology with emphasis on the microscopic structures of enamel, dentin, pulp, cementum, periodontal ligament, bone, oral mucosa, epithelial attachment and orofacial structures. (F)

**DENT142 PreClinical Dental Hygiene** 3**Prerequisite:** Admission to Dental Hygienist Program**Co-requisite Course(s):** DENT140 and DENT144 and DENT146 and DENT148

This course is offered concurrently with DENT144 to provide dental hygiene students with the introductory knowledge, skills and attitudes to function in the clinical setting and be able to continue in clinical dental hygiene courses. Emphasis is placed on scientific principles and current theory, prevention of disease transmission, ethical and professional treatment of patients, clinical learning preparation, and comprehensive care of the patient. (F)

**DENT144 PreClinical Dental Hygiene Practice** 2**Prerequisite:** Admission to Dental Hygienist Program**Co-requisite Course(s):** DENT140 and DENT142 and DENT146 and DENT148

This course is offered concurrently with DENT142 to provide clinical application to basic theories and procedures used in dental hygiene practice. The primary emphasis is on the techniques of instrumentation used in performing diagnostic, preventive and therapeutic services utilized when providing comprehensive patient care. The dental hygiene student will have an opportunity to practice these techniques on manikins and student partners in the clinic. (F)

**DENT146 Head, Neck & Oral Anatomy** 4**Prerequisite:** Admission to Dental Hygienist Program**Co-requisite Course(s):** DENT140 and DENT142 and DENT144 and DENT148

This course provides a detailed study of nomenclature, morphologic characteristics, and physiologic relationships of human primary and permanent teeth. Head and neck anatomy is also studied and is related to the clinical practice of dental hygiene. Laboratory activities develop observation and dexterity skills while studying this information. (F)

**DENT148 Dental Radiography** 3**Prerequisite:** Admission to Dental Hygienist Program**Co-requisite Course(s):** DENT140 and DENT142 and DENT144 and DENT146

This course provides a study of radiation physics, hygiene, and safety theories. Emphasis is placed on the fundamentals of oral radiographic techniques and interpretation of radiographs. Course content includes exposure of intra-oral radiographs, quality assurance, radiographic interpretation, patient selection criteria, and other ancillary radiographic techniques. (F)

**DENT152 Dental Hygiene I** 2**Prerequisite:** Minimum 2.0 in DENT140 and minimum 2.5 in (DENT142 and DENT144 and DENT146 and DENT148)**Co-requisite Course(s):** DENT154 and DENT156 and DENT158 and DENT160

This course is a continuation of information designed to provide an opportunity to enhance performance of procedures in a clinical setting. Emphasis will be placed on emergency care, planning dental hygiene care, health promotion and disease prevention, oral rehabilitation and care of appliances, and modifications of dental hygiene care for specific patient populations. (Sp)

**DENT154 Clinical Dental Hygiene I** 2.5**Prerequisite:** Minimum 2.0 in DENT140 and minimum 2.5 in (DENT142 and DENT144 and DENT146 and DENT148)**Co-requisite Course(s):** DENT152 and DENT156 and DENT158 and DENT160

This course provides an introduction to the clinic and patient, clinical skills, patient assessment, treatment and appointment scheduling, preventive techniques and application of dental hygiene procedures in the clinical setting. Practical experience is simultaneously related to theory. Direct supervision is provided by clinical faculty. (Sp)



- DENT156 Nutrition** 3  
**Prerequisite:** Minimum 2.0 in DENT140 and minimum 2.5 in (DENT142 and DENT144 and DENT146 and DENT148)  
**Co-requisite Course(s):** DENT152 and DENT154 and DENT158 and DENT160  
 This course discusses the identification, function, metabolism, and sources of specific nutrients required for normal growth, development, and repair of tissues. Application of principles to the individual's nutritional needs, providing nutritional counseling and diet information to special needs patients, and the relationship of nutrition to oral health are emphasized. (Sp)
- DENT158 Dental Pharmacology I** 2  
**Prerequisite:** Minimum 2.0 in DENT140 and minimum 2.5 in (DENT142 and DENT144 and DENT146 and DENT148)  
**Co-requisite Course(s):** DENT152 and DENT154 and DENT156 and DENT160  
 This course provides an introductory study of the importance of the pharmacologic aspects of those drugs and drug groups with which the dentist and dental hygienist are directly and indirectly concerned. Emphasis is placed on nomenclature, origin, physical and chemical properties, preparation, modes of administration, and effects upon the body systems. (Sp)
- DENT160 Oral Pathology** 3  
**Prerequisite:** Minimum 2.0 in DENT140 and minimum 2.5 in (DENT142 and DENT144 and DENT146 and DENT148)  
**Co-requisite Course(s):** DENT152 and DENT154 and DENT156 and DENT158  
 This course is a study of the diseases affecting oral tissues, including the principles of inflammation and repair, developmental disturbances, stains and accretions, diseases of the teeth and supporting structures, oral infection, injuries and neoplasms. (Sp)
- DENT174 Clinical Dental Hygiene II** 1  
**Prerequisite:** Minimum 2.5 in (DENT152 and DENT154 and DENT156 and DENT158 and DENT160)  
**Co-requisite Course(s):** DENT176 and DENT178  
 This course provides a continuation of clinical skills, patient assessment, treatment and appointment scheduling, preventive techniques and application of dental hygiene procedures. Work-based instruction helps students synthesize new knowledge, apply previous knowledge, and gain experience managing workflow. Practical experience is simultaneously related to theory. Direct supervision is provided by clinical faculty in a clinical setting. (Su)
- DENT176 Dental Materials & Methods** 3  
**Prerequisite:** Minimum 2.5 in (DENT152 and DENT154 and DENT156 and DENT158 and DENT160)  
**Co-requisite Course(s):** DENT174 and DENT178  
 This course provides a study of the composition, chemical and physical properties, manipulation, and uses of dental materials. Laboratory experiences include the application and manipulation of various materials used in dentistry. (Su)
- DENT178 Dental Pharmacology II** 2  
**Prerequisite:** Minimum 2.5 in (DENT152 and DENT154 and DENT156 and DENT158 and DENT160)  
**Co-requisite Course(s):** DENT174 and DENT176  
 A continuation of the study of the pharmacological aspects of those drugs and drug groups with which the dentist and dental hygienist are directly and indirectly concerned. Emphasis is placed on nomenclature, origin, physical and chemical properties, preparation, modes of administration, and effects upon the body systems. (Su)
- DENT240 Anxiety & Pain Control Management** 3  
**Prerequisite:** Minimum 2.5 in (DENT174 and DENT176 and DENT178)  
**Co-requisite Course(s):** DENT242 and DENT244 and DENT246 and DENT248  
 This course will provide the student with basic and current concepts of local anesthetics nitrous oxide and pain control for the safe and effective administration of local anesthetics and nitrous oxide/oxygen sedation. Instruction in local anesthetic technique, nitrous oxide technique, and an introduction to the use of nitrous oxide as an analgesia is included. (F)
- DENT242 Dental Hygiene III** 2  
**Prerequisite:** Minimum 2.5 in (DENT174 and DENT176 and DENT178)  
**Co-requisite Course(s):** DENT240 and DENT244 and DENT246 and DENT248  
 This course is a continuing development of a theoretical framework of dental hygiene treatment with advancement of dental hygiene proficiency in all areas of dental hygiene treatment. Case histories from patients are presented and discussed along with preventive measures employed against disease concurrent with clinical practice, with emphasis on special needs patients. (F)
- DENT244 Clinical Dental Hygiene III** 3.5  
**Prerequisite:** Minimum 2.5 in (DENT174 and DENT176 and DENT178)  
**Co-requisite Course(s):** DENT240 and DENT242 and DENT246 and DENT248  
 The clinical sessions combine dental hygiene skills with time management techniques essential for private practice. Comprehensive patient care includes assessment, diagnosis, treatment planning, implementation and evaluation of dental hygiene care, nonsurgical periodontal therapy, ultrasonic instrumentation, patient management, sealants, and comprehensive programs for control of dental diseases. The course consists of faculty supervised patient treatment in the clinic. (F)
- DENT246 Principles of Periodontics** 3  
**Prerequisite:** Minimum 2.5 in (DENT174 and DENT176 and DENT178)  
**Co-requisite Course(s):** DENT240 and DENT242 and DENT244 and DENT248  
 This course provides a study of the normal and diseased periodontium to include the structural, functional, and environmental factors. Emphasis is placed on etiology, pathology, evaluation of disease, treatment modalities, and therapeutic and preventive periodontics relative to the hygienist's role as a co-therapist in a contemporary practice setting. (F)
- DENT248 Dental Public Health & Educ** 3  
**Prerequisite:** Minimum 2.5 in (DENT174 and DENT176 and DENT178)  
**Co-requisite Course(s):** DENT240 and DENT242 and DENT244 and DENT246  
 This course provides a study of the principles and concepts of community public health and dental health education. Emphasis is placed on dental epidemiology and statistical methods, community assessment, educational planning, implementation, and evaluation, scientific review of literature, and classroom presentation. (F)
- DENT250 Oral Health Psychology** 2  
**Prerequisite:** Minimum 2.5 in (DENT240 and DENT242 and DENT244 and DENT246 and DENT248)  
**Co-requisite Course(s):** DENT252 and DENT254 and DENT256  
 This course is an introduction to the understanding of relationships between oral health and one's behavior. Emphasis is placed on the identification of personal and environmental factors that impact oral health and the application of behavioral science to maximize health and oral health. (Sp)

**DENT252 Dental Hygiene IV** 2

**Prerequisite:** Minimum 2.5 in (DENT240 and DENT242 and DENT244 and DENT246 and DENT248)

**Co-requisite Course(s):** DENT250 and DENT254 and DENT256

This course is a continuation of information to prepare the student for advanced clinical practice. An in-depth study of dental hygiene care for patients with special needs is provided along with an examination of the dental hygienist's role in practice settings and employment considerations. Resume preparation, job interviewing, employment preparation, and an understanding of the law and professional ethics of dental hygiene are covered. (Sp)

**DENT254 Clinical Dental Hygiene IV** 3

**Prerequisite:** Minimum 2.0 in (DENT240 and DENT242 and DENT246 and DENT248) and minimum 2.5 in DENT244

**Co-requisite Course(s):** DENT250 and DENT252 and DENT256

The clinical session combines dental hygiene skills with time management techniques essential for private practice. Comprehensive patient care includes assessment, diagnosis, treatment planning, implementation and evaluation of dental hygiene care, nonsurgical periodontal therapy, ultrasonic instrumentation, patient management, sealants, and comprehensive programs for control of dental diseases. The course consists of faculty supervised patient treatment in the clinic. (Sp)

**DENT256 Community Oral Health** 2

**Prerequisite:** Minimum 2.5 in (DENT240 and DENT242 and DENT244 and DENT246 and DENT248)

**Co-requisite Course(s):** DENT250 and DENT252 and DENT254

Students assess, plan, implement, and evaluate a community dental health project. Dental specialties and the dental hygienist's role in recognizing specialty care needed by patients is presented. Each student participates in a variety of community health projects and observing in dental specialty practices. (Sp)

**DENT280 Dental Auxiliary Special Topic** .25-8

**Prerequisite:** Determined by Unit Section

This course offers students the opportunity to learn new skills and knowledge related to dental hygiene and/or dental assisting. Specific up-to-date course content will vary with each offering and will be related to the dental team, dental hygiene, and/or dental assisting procedures. (F,Sp,Su)

**DENT285 Dental Continuing Ed Special Topics** .25-8

**Prerequisite:** Determined by Unit Section

This course offers dental health professionals the opportunity to learn new skills and knowledge related to dental hygiene and/or dental assisting through continuing education seminars. Specific, up-to-date course content will vary by seminar and will be related to the dental team, dental hygiene, and/or dental assisting procedures. (F,Sp,Su)

**ECON - Economics****ECON120 Power, Authority and Exchange** 4

**Prerequisite:** Reading Level 5

A comparative study of ancient and modern economic and political systems and theories in different parts of the world. An emphasis will be placed on the evolution of economic and political organizations and the impact these have on societies and individuals. (F,Sp,Su)

**ECON201 Principles of Economics-Micro** 4

**Prerequisite:** Reading Level 5 and Math Level 4

This course is designed to develop objective consideration of economic issues and provides information and understanding of how resources are allocated by prices. Topics for study include price theory, consumer demand, cost and market structure, the role of government in the market, resource pricing, and international trade. (F,Sp,Su)

**ECON202 Principles of Economics-Macro** 4

**Prerequisite:** ECON201 or concurrently and Reading Level 5 and Math Level 4

This course addresses the theory of national income, employment and the price level, and government fiscal and monetary policies designed to influence aggregate economic activity. It also addresses exchange rates, international financial relationships, and economic growth. (F,Sp,Su)

**ECON213 U.S. Economic/Business History** 3

**Prerequisite:** Reading Level 5

This course provides a survey of American economic and business history, change, and growth since the colonial period. Topics include an overview of business organization, the role of government and technological change, American industrial development, labor unions, and capitalization patterns. (F,Sp)

**ECON260 Comparative Economic Systems** 3

**Prerequisite:** Reading Level 5

A comparison of different global economic systems and their impact on economic growth, distribution of income and opportunity, and economic treatment of women and minorities. Theories, philosophies, historical development and current practices will be examined. (F,Sp)

**EDUC - Education****EDUC201 Teacher Education Practicum** 2

**Prerequisite:** Reading Level 5 and Writing Level 6

This course requires students to work with a teacher in an educational setting, thus receiving practical experience working with children in a classroom. Combined with textbook readings, reflections, and on-campus classroom discussion, students should gain an appreciation for the role of professional teachers. (F,Sp)

**EDUC204 Educational Psychology** 3

**Prerequisite:** Reading Level 5 and Writing Level 6

Educational psychology examines the contribution of psychology to education, emphasizing childhood development, learning, motivation, measurement, and both individual and group dynamics that affect pupils' achievements. Research on specific programs and strategies designed to improve instruction and learning will be explored. This class is designed for potential certified teachers or paraprofessionals. (F,Sp,Su)

**EDUC220 Introduction to Education** 3

**Prerequisite:** Reading Level 5 and Writing Level 6

An overview of the foundations, philosophy, history and organization of education as a human endeavor and an introduction to education as a teaching profession. Topics include legal concerns, issues and trends in American education, school governance and school finance. (F,Sp,Su)

**EDUC226 Reading in Elementary School** 3  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** EDUC220 and EDUC204  
 This course provides an introduction to concepts and issues in the reading development of elementary school children. Included are methods of reading instruction and assessment, and review of current school practices. Intended for teacher paraprofessionals, but may also be used for transfer to a teacher certification program. (F,Sp)

**EDUC228 Technology in Education** 3  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** EDUC220 and (CPSC120 or CABS110)  
 In this survey course, students will learn sound principles for integrating technology and media into K-12 classrooms, legal and societal issues surrounding their use, and how to assess and select appropriate technology and media. Students will explore uses of productivity/presentation software and the internet/WWW to enhance their teaching. (F,Sp,Su)

**EDUC230 Introduction to Special Education** 3  
**Prerequisite:** Reading Level 5 and Writing Level 6  
 An introduction to Special Education for potential elementary or secondary teachers and teacher paraprofessionals. The physical, social, emotional and cognitive characteristics of special needs students are defined. Emphasis is placed on the disability categories addressed in state and federal special education mandates. (F,Sp,Su)

**ELTE - Electrical Technology**

**ELTE100 Electrical Safety Practices** 1  
**Prerequisite:** None  
 This course covers basic electrical safety practices in the home, electrical laboratory and in construction and industry. Included are state and federal standards and practices. This course is a Prerequisite: for, or to be taken concurrently with, all ELTE courses that have a lab. (F,Sp,Su)

**ELTE110 Practical Electricity** 3  
**Prerequisite:** Minimum 2.0 in (ELTE100 or concurrently) and Reading Level 3 and Writing Level 2 and Math Level 3  
 This course introduces the student to electricity on a practical level. The student will learn to use meters to measure electrical quantities, do basic circuit calculations, install basic household electrical wiring and investigate the behavior of motors. Reviews electrical codes and standards. (F,Sp,Su)

**ELTE111 Introduction to Industrial Automation** 4  
**Prerequisite:** Reading Level 3  
 Provides a hands-on introduction to computer-based manufacturing through experiments and demonstrations. Topics include computer architecture, operating systems, the internet, text and spreadsheet processing, PLC's, machine vision, programming languages, discrete electronics, computer aided design and statistical process control. Emphasis placed on the integration of these systems and impact on human lifestyle. (F,Sp,Su)

**ELTE112 Basic Wiring Installation** 2  
**Prerequisite:** Minimum 2.0 in (ELTE110 or HVAC110)  
 This course covers installation of a variety of wiring systems in wood frame construction. Students will practice installing nonmetallic sheathed cable, electrical metallic tubing and residential services. (F,Sp,Su)

**ELTE118 Electric Circuits Study** 1  
**Prerequisite:** Minimum 2.0 in ELTE100 or concurrently and Reading Level 3 and Writing Level 2 and Math Level 3

This course is intended for non-Electrical Technology majors in preparation for ELTE121. It gives students an introduction to electrical circuits and the use of meters to measure electrical quantities associated with them: voltage, current, resistance and power. (F,Sp,Su)

**ELTE121 Electrical Mathematics** 5  
**Prerequisite:** Minimum 2.0 in ELTE100 and (ELTE110 or ELTE118) and (minimum 2.0 in MATH107 or MATH114 or Math Level 5) and Reading Level 5

This course utilizes concepts in algebra, vector algebra and trigonometry to solve DC and AC electric circuit problems. Topics will include units, Ohm's Law, network analysis, series parallel and combination DC and AC circuits, inductance, capacitance, AC power relationships and power factor correction. (F,Sp)

**ELTE122 Industrial Control Electronics** 5  
**Prerequisite:** Minimum 2.0 in (ELTE111 (previously ELTE105) and ELTE121)

This course introduces the student to solid-state circuitry used in industry. Students will study diodes, transistors, SCRs, triacs, optical isolators, transducers, power circuits, etc. Laboratory will include oscilloscope usage. The course also includes an introduction to Boolean algebra and digital circuits. (Sp)

**ELTE123 Motors and Transformers** 5  
**Prerequisite:** Minimum 2.0 in ELTE121

This course begins with three-phase circuits, including three-phase power measurement. Contains practical introduction to single- and three-phase transformers, motors and alternators. Brief coverage of DC machines. (F)

**ELTE131 Introduction to Machine Control** 4  
**Prerequisite:** Minimum 2.0 in ELTE110

Covers relay logic and controls using industrial standards. Use of correct symbols and standard construction of wiring and ladder diagrams is emphasized. Laboratory exercises include wiring three-phase motor control circuits utilizing two- and three-wire control and machine control circuits utilizing limit and proximity switches, timers, relays, etc. (F,Sp)

**ELTE136 Digital Basics** 2  
**Prerequisite:** Minimum 2.0 in ELTE131 and Reading Level 5

Introduces digital electronics basics: Binary number system, basic gates, and combination and sequential logic circuits. Laboratory work includes the analysis of digital circuits built on PC boards. (F,Sp)

**ELTE141 National Electrical Code I** 4  
**Prerequisite:** Minimum 2.0 in (ELTE110 or HVAC110)

An introductory course designed for individuals with little or no knowledge of the Electrical Code. Students will study the structure and scope of the National Electrical Code, focusing on Chapters 1 through 4. These chapters constitute the general rules and most often used portion of the NEC. (F,Sp)

**ELTE142 National Electrical Code II** 4  
**Prerequisite:** Minimum 2.0 in ELTE141

This course builds on ELTE141 by applying the National Electrical Code to situations common to the practicing journey electrician. Extensive practice locating and interpreting sections of the NEC helps prepare students for the State Journey Examination. In addition to the NEC, State of Michigan electrical rules will be reviewed. (F,Sp)

<b>ELTE143 National Electrical Code III</b>	4
<b>Prerequisite:</b> Minimum 2.0 in ELTE142	
For individuals with National Electrical Code experience and practical electrical knowledge. Students will apply the National Electrical Code to problems, discuss interpretation of the NEC, study Michigan electrical and construction code rules and discuss topics appropriate to the Master's Exam and the Contractor's Exam. (F)	
<b>ELTE145 Electrical Prints for Building</b>	4
<b>Prerequisite:</b> Minimum 2.0 in ELTE141	
<b>Recommended:</b> Minimum 2.0 in ELTE121 or equivalent	
Covers construction prints emphasizing standard and nonstandard symbols and interpretation of prints. Uses the National Electrical Code to calculate branch circuit, motor circuit, and feeder sizes. Other topics include industrial loads, uninterruptible power supplies, and signaling systems. (Sp)	
<b>ELTE150 Electric Motor Maintenance</b>	2
<b>Prerequisite:</b> Minimum 2.0 in (ELTE110 or HVAC110)	
Students learn to diagnose and test electric motors. Students will learn to identify and repair common problems in motors using meters, test equipment and appropriate tools. An introduction to rewinding and metal working procedures is also included. (F,Sp)	
<b>ELTE232 Industrial Control Design</b>	4
<b>Prerequisite:</b> Minimum 2.0 in ELTE131	
This course is a continuation of ELTE131, covering more components and larger, more complex machine control diagrams; including automation interlocking and automatic continuous cycling of machinery. Students will be taught to design the control circuits for more complex machines and be introduced to the use of CAD for drawing electrical schematics. (F)	
<b>ELTE240 Electrical Estimating</b>	3
<b>Prerequisite:</b> Minimum 2.0 in (ELTE112 and ELTE145)	
Basics of preparing accurate, competitive electrical estimates for the building trades. Topics include take-off procedure using electrical, mechanical and architectural prints; lighting design; labor and materials cost and evaluation techniques and specifications. (F)	
<b>ELTE260 Introduction to Programmable Controllers</b>	4
<b>Prerequisite:</b> Minimum 2.0 in ELTE131	
This course covers programmable logic controllers with focus on common operating principles. Topics include the capabilities, similarities and differences among controllers, programming (examine on/off, timers and counters) and connecting external devices to Allen-Bradley, Modicon and Omron. (F)	
<b>ELTE261 Allen-Bradley PLC-5 Advanced</b>	6
<b>Prerequisite:</b> Minimum 2.0 in ELTE260	
This course covers programming and connections for Allen-Bradley PLC-5 controllers. Focus on math, subroutine, file, block transfer, sequencers, logic and bit manipulation instructions. Students will learn logic for machine control, programming and utilizing intelligent cards, analog input/output and system documentation. (Sp)	
<b>ELTE291 Electrical Project Lab</b>	1-4
<b>Prerequisite:</b> Department Approval	
A guided study of topics of interest in electrical technology. The student will prepare a summary report of activities and demonstrate results of laboratory experiences. (F,Sp,Su)	

**EMSB - Emergency Medical Services Seminars**

<b>EMSB101 CPR for Bystanders/Heart Saver</b>	.25
<b>Prerequisite:</b> None	
This seminar is designed for CPR instruction of the general public and adheres to American Heart Association guidelines. Content includes adult one-person CPR and foreign body airway obstruction. Also includes information about heart disease, risk factors, prudent heart living, and heart and lungs physiology. (F,Sp,Su)	
<b>EMSB102 CPR for Health Care Professionals</b>	.25
<b>Prerequisite:</b> None	
This seminar is designed for CPR instruction of health care providers and adheres to American Heart Association guidelines. Content includes one- and two-rescuer CPR, child and pediatric CPR, adult, child, pediatric foreign body airway obstruction, information about heart disease, risk factors, and physiology of the heart and lungs. (F,Sp,Su)	
<b>EMSB103 CPR Renewa</b>	.25
<b>Prerequisite:</b> Current Basic Life Support or CPR Card	
This seminar is designed for CPR instruction for individuals who have previously obtained instruction in the basics of cardiopulmonary resuscitation and foreign body airway obstruction. The participants must have a current healthcare provider card for CPR. The curriculum and testing consists of recertification techniques for CPR. (F,Sp,Su)	
<b>EMSB104 CPR Instructor</b>	.75
<b>Prerequisite:</b> Current Basic Life Support or CPR Card	
The CPR Instructor's seminar is to provide the opportunity and forum to acquire knowledge and skills to accurately instruct and test the Basic Life Support Provider's courses according to American Heart Association guidelines. (F,Sp,Su)	
<b>EMSB105 CPR Instructor Renewal</b>	.25
<b>Prerequisite:</b> Current Basic Life Support or CPR Card and Current CPR Instructor Card	
This seminar is designed to recertify CPR instructors and instructor trainers who have a valid American Heart Association CPR Instructor certificate. The student will be assessed on his/her ability to instruct and assess a student's progress in the Basic Life Support Provider's courses according to AHA guidelines. (F,Sp,Su)	
<b>EMSB106 Infant/Child CPR for Daycare Providers</b>	.25
<b>Prerequisite:</b> None	
This seminar provides instruction of CPR for special situations or groups. Infant and child CPR and foreign body airway obstruction for babysitters and parents fall under this curriculum. Intended for Daycare providers to meet the requirements of the Michigan Department of Social Services. (F,Sp)	
<b>EMSB110 Adult/Child/Infant First Aid/CPR Seminar</b>	.5
<b>Prerequisite:</b> None	
This seminar offers Adult/Child/Infant CPR including airway obstruction as well as basic first aid for Adult/Child/Infant. American Heart Association certification is given to those successfully completing all components. (F,Sp)	

**EMSB120 Self-Paced Health Provider CPR Renewal .5**

**Prerequisite:** Department Approval

This self-paced course is designed to provide healthcare professionals with greater flexibility in renewing their healthcare provider CPR certification. This course adheres to the American Heart Association guidelines and will test the individual on one- and two-rescuer CPR, adult, child and infant CPR, and foreign body airway obstruction through the use of a computerized mannequin and laptop system. (F,Sp,Su)

**EMSB295 Emergency Med Services Special Topics .25-8**

**Prerequisite:** Determined by Unit Section

This course offers students the opportunity to learn new emergency medical services career skills and knowledge. Specific up-to-date content will vary with each topic presented and will be related to emergency medical services careers. (F,Sp,Su)

**EMTA - Emergency Medical Technology**

**EMTA100 Medical First Responder 4**

**Prerequisite:** None

This course will provide the student with the knowledge and skills necessary to manage ill or injured victims at the scene of an emergency until the arrival of course personnel. Successful completion enables the student to apply for state licensure as a medical first responder. (F,Sp,Su)

**EMTA101 Basic EMT I 4**

**Prerequisite:** Must be 18 years of age and Reading Level 5 and Writing Level 6

**Co-requisite Course(s):** EMTA102

First in a sequence of five courses to prepare the student as a basic EMT. Emphasis is placed on didactic material including airway management, patient assessment, CPR soft tissue injuries, head, chest, and abdominal injuries, and proper use of equipment in the delivery of basic emergency care. (F,Sp,Su)

**EMTA102 Basic EMT II 2**

**Prerequisite:** None

**Co-requisite Course(s):** EMTA101

Second in a sequence of five courses to prepare the student as a Basic EMT. Emphasis is placed on practical skills including patient assessment, bandaging, splinting, backboarding, oxygen delivery equipment, CPR, and airway management in the delivery of basic emergency care. (F,Sp,Su)

**EMTA103 Basic EMT III 4**

**Prerequisite:** Minimum 3.0 in (EMTA101 and EMTA102)

**Co-requisite Course(s):** EMTA104 and EMTA112

The third in a sequence of five courses to prepare the student as a Basic EMT. Emphasis is placed on didactic material including the recognition and management of environmental and medical emergencies; verbal, written and radio communications; triage, emergency childbirth; and pediatric emergencies. (F,Sp,Su)

**EMTA104 Basic EMT IV 2**

**Prerequisite:** Minimum 3.0 in (EMTA101 and EMTA102)

**Co-requisite Course(s):** EMTA103 and EMTA112

The fourth course in a sequence of five to prepare the student as a Basic EMT. Emphasis is placed on the overall delivery of basic emergency care through simulated emergencies. Successful completion of this course and EMTA101, EMTA102, EMTA103, and EMTA112 enables the student to apply for licensing as a Basic EMT. (F,Sp,Su)

**EMTA105 Ambulance Driving 1**

**Prerequisite:** None

This is a course to provide the EMT with the knowledge and practical experience in the operation of an ambulance. The course will focus on safety, defensive driving techniques, and specialized driving maneuvers. (F,Sp)

**EMTA112 Basic EMT Clinical 2**

**Prerequisite:** Minimum 3.0 in (EMTA101 and EMTA102)

**Co-requisite Course(s):** EMTA103 and EMTA104

The fifth course in a sequence of five to prepare the student as a basic EMT. Includes required OSHA standards, hospital clinicals, ambulance clinicals, and a community service component. Classroom time enhances assessment, history taking skills, and report writing. (F,Sp,Su)

**EMTA114 Rescue/Extrication/Dangerous Situations 3**

**Prerequisite:** None

A course to provide EMS or rescue personnel with skills in light and heavy vehicle extrication, industrial rescue techniques, extrication from farm machinery, and other specialized rescue techniques. Emphasis is placed on patient and rescuer safety. (F,Sp)

**EMTA115 First Aid and CPR 2**

**Prerequisite:** None

This course is designed to provide the knowledge and skills necessary to respond to and treat emergency situations until professional medical help is obtained. First aid and CPR certificates are issued upon successful completion of the course. (F,Sp,Su)

**EMTA222 EMS Instructor Coordinator 6**

**Prerequisite:** 3 years field experience and Department Approval

A State of Michigan approved course for EMS personnel interested in becoming an EMS instructor coordinator. Includes teaching and testing methods, lesson plan development, writing performance objectives, course administration, State of Michigan application process for course approval, and meeting other State-mandated requirements. Student teaching is required. (Su)

**ENGL - English**

**ENGL122 Writing About Literature and Ideas 4**

**Prerequisite:** Minimum 2.0 in WRIT121 or WRIT131 or (Reading Level 5 and Writing Level 8)

An alternative to WRIT122, ENGL122 introduces the students to various literary forms and develops analytical skills in reading, writing, and research techniques. Writing assignments begin with short essays and conclude with an extensive literary research paper. (F,Sp,Su)

**ENGL132 Honors Writing-Literature and Ideas 4**

**Prerequisite:** Minimum 3.5 in (WRIT121 or WRIT131)

An alternative to WRIT122, ENGL132 is an introduction to various literary forms, in addition to the development of analytical reading and writing skills and research techniques leading to a literary research paper. (Same as ENGL122 but taught on an advanced level.) (Sp)

**ENGL201 Introduction to Poetry 4**

**Prerequisite:** Reading Level 5 and Writing Level 6

**Recommended:** (WRIT121 or WRIT131) and ENGL122

An introduction to the content, form, style, and technique of poetry; its structural types: metrical, blank, and free verse; its thematic types: lyric, narrative, and dramatic; and its effects or purposes. The course emphasizes poetry written in English but includes English translations of representative poetry from other languages and cultures. (F,Su)

**ENGL202 Introduction to Drama** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** (WRIT121 or WRIT131) and ENGL122  
 Introduces drama and its literary techniques and conventions. Attention is given to principles and theory, but understanding of the plays is emphasized. Representative plays from Greek, European, English, and American dramatists. (Sp)

**ENGL203 Introduction to Prose** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** (WRIT121 or WRIT131) and ENGL122  
 This course introduces students to selected prose genres, focusing on the novel, short fiction, and the essay. Students will read selection of works representative of Western and non-Western literary traditions and will consider how different literary forms reflect the diverse functions of language in developing human societies. (F)

**ENGL205 The Power of Autobiography** 3  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** (WRIT121 or WRIT131) and ENGL122  
 Autobiographical writing, which includes letters, journals, and diaries, is the focus of this special seminar on prose literature. Works to be read chronicle the literary, artistic, historical, social, and political life transformations experienced by notable twentieth century figures. Course emphasis is on the power of the personal narrative as literature. (F)

**ENGL208 Children's Literature** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** (WRIT121 or WRIT131) and ENGL122  
 This course offers a survey of children's literature, from fairy tales to young adult novels. Students will be introduced to a variety of literary genres in classic and contemporary works. Students will experience the literature through writing, discussion, oral or dramatic presentations, and other means suitable to classroom practice. (F,Sp,Su)

**ENGL211 World Literature I** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** (WRIT121 or WRIT131) and ENGL122  
 A selective survey of the literatures of major world cultures reflecting the diversity of the continents of Africa, the Americas, Asia, and Europe to approximately the 17th century. Explores the historical, ethnic, aesthetic, political, economic, and thematic elements of their respective cultures through narrative prose fiction, poetry, and drama. (F)

**ENGL212 World Literature II** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** (WRIT121 or WRIT131) and ENGL122  
 A survey of the literatures of major cultures reflecting the diversity of the continents of Africa, the Americas, Asia, and Europe from approximately the 17th century through the present. Explores the historical, ethnic, aesthetic, political, economic, and thematic elements of their cultures through narrative prose fiction, poetry, and drama. (Sp)

**ENGL220 Science Fiction** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** (WRIT121 or WRIT131) and ENGL122  
 ENGL220 is an introductory course which explores significant issues in science fiction. Novels and/or stories will be the main focus, although works from other media also may be studied. The course's emphasis transcends entertainment to include understanding, interpretation, and analysis as well. (F)

**ENGL240 The Film as Art** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** (WRIT121 or WRIT131) and ENGL122  
 This course will introduce film as an art form capable of making perceptive comments on our civilization. Thematic analysis of 12 to 15 motion pictures of recognized merit will emphasize the film maker's visual and aural techniques as well as conventions more commonly associated with literature. (Sp,Su)

**ENGL245 Popular Culture and Mass Media** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** (WRIT121 or WRIT131) and ENGL122  
 A study of the popular culture distributed by mass media (newspapers, radio, film, television, magazines, and music videos) and how the media and popular culture reflect and shape our cultural beliefs. Extensive use of multimedia. (F)

**ENGL255 American Literature I** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** (WRIT121 or WRIT131) and ENGL122  
 Provides a perspective on the evolution of traditional American literature beginning with the writings of the first European explorers and Native American oral tradition. Features selected essays, autobiographical writings, poems, fiction, and drama from the mid-15th century to 1865, including the work of women and ethnic minorities, which have contributed to American thought. (F)

**ENGL256 American Literature II** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** (WRIT121 or WRIT131) and ENGL122  
 Provides a perspective on the further development of traditional American literature from 1865 (the Realism period) to contemporary literature. Features selected essays, autobiographical writings, poems, fiction, and drama from the end of the Civil War to the literature of the late 12th century, including the work of women and ethnic minorities, which have profoundly shaped American literature. (Sp)

**ENGL260 African-American Literature** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** (WRIT121 or WRIT131) and ENGL122  
 This course introduces the African-American literary tradition as seen in the literature of the Americas, including the Caribbean. Selections explore the black experience in autobiography, essay, fiction, poetry, and drama. Themes of slavery, colonialism, and the Black Diaspora are discussed. Reading selections include the Harlem Renaissance and contemporary texts. (F)

**ENGL265 Japanese Literature** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** (WRIT121 or WRIT131) and ENGL122  
 Arranged chronologically, this course draws heavily on many different genres of Japanese literature. The basis for selection of works to be read rests on the insight that each work gives to the Japanese society which produced it, and upon its universal characteristics. (Sp)

**ENGL266 British Literature I** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** (WRIT121 or WRIT131) and ENGL122  
 British Literature I surveys the poetry, prose, and drama of the major British writers from Chaucer (14th Century) to the Satirists (18th Century). The works are selected to reflect the attitudes and values of British culture and the perception of the world from a British point of view. (F)

**ENGL267 British Literature II** 4

**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** (WRIT121 or WRIT131) and ENGL122

British Literature II surveys the poetry, prose, and drama of the major British writers from the Romantics (19th Century) to late 20th Century. The works are selected to reflect the attitudes and values of British culture and the perception of the world from a British point of view. (Sp)

**ENGL270 Literature by Women** 4

**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** (WRIT121 or WRIT131) and ENGL122

A study of selected works by English and North American women writers. Designed to increase understanding of the themes, images, issues, and modes of expression of women writers. (Sp)

**ENGL290 Shakespeare** 4

**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** (WRIT121 or WRIT131) and ENGL122

Students will read, discuss and write about selected comedies, histories, tragedies and romances written by Shakespeare. To better understand how Shakespeare's work continues to influence literature and the arts, the class may also screen film versions of modern re-tellings of Shakespearean plots. (Sp)

**ENGL295 Independent Study in English** 1-4

**Prerequisite:** Department Approval

An opportunity for self-directed learners to explore topics related to, but not taught in the curriculum. Students spend at least two hours per week for each credit. A detailed proposal must be submitted by the student for approval by the Department and supervising instructor prior to registration. (F,Sp,Su)

**ENRI - Enrichment****ENRI105 Life Learn Port** 1

**Prerequisite:** Reading Level 5 and Writing Level 6 and Department Approval

This course provides the opportunity for students to create a portfolio to document learning acquired through work, volunteer, and/or life employment experience. The finished portfolio can then be submitted to the LCC Registrar's Office to request college credit for knowledge and skill-learning outcomes--that correspond to LCC courses. (Sp)

**ENRI152 Workshop: READ Success Skills** 1

**Prerequisite:** None

Designed for beginning college students, whether recent high school graduates or returning adults. Develops college reading survival skills. Concentrates on reading comprehension, speed and flexibility, study techniques, concentration and memory, note-taking, test-taking, and vocabulary expansion. (Su)

**ENRI162 Workshop: WRIT Success Skills** 1

**Prerequisite:** None

This course is designed for new and returning students, as well as others from the community. It helps students to develop their writing skills, including the study of writing for various disciplines, the writing process, and the basics of grammar, sentence style, and punctuation. (Su)

**ENVR - Environmental Science****ENVR121 Environmental Rules and Regulations** 3

**Prerequisite:** Reading Level 5 and Writing Level 6

Overview of federal and state environmental regulations and agency rules that regulate discharges to air, water, and land. Laws are examined with respect to the reason the regulation is needed, what the law does, and how it does it. The course is designed for students pursuing careers as environmental technicians. (Sp)

**ENVR122 Environmental Sampling & Instrumentation** 4

**Prerequisite:** Reading Level 5 and Writing Level 6 and Math Level 5

An introduction to sampling and monitoring procedures and instrumentation to accomplish a task. Students will learn to take samples from ground water, surface water, air, and soil. This course is designed for students pursuing careers in biological science, but emphasizes the skills used by environmental technicians. (F)

**ENVR131 Industrial Process Safety** 3

**Prerequisite:** Reading Level 5 and Writing Level 6

Introduction to general manufacturing processes with emphasis on waste reduction and pollution prevention strategies. Case studies of basic processes, materials flow, worker health and safety, waste reduction, and pollution prevention will be examined. Fundamentals of toxicology, epidemiology, and environmental health will be used in understanding workplace safety and health issues. (Sp)

**ESLP - English as a Second Language****ESLP100 Computer Literacy ESL Students** 1

**Prerequisite:** None

**Recommended:** ESLP025, ESLP035, or ESLP115 concurrently or equivalent

For English as a Second Language students with little or no previous experience using computers. Students will learn vocabulary for the parts of the computer and for performing basic functions. By the end of the course, students will be able to perform basic word processing skills. (F,Sp,Su)

**ESLP103 Focus on Pronunciation** 4

**Prerequisite:** Minimum 2.0 in ESLP036 or Placement Test

This course is designed for advanced level non-native speakers of English who wish to improve the intelligibility of their speech. Students will have an individual speech profile. Emphasis will be on building awareness of and practicing American English stress, intonation, and rhythm patterns, and clear pronunciation of individual sounds. (F,Sp,Su)

**ESLP105 Applied Grammar for Writing** 4

**Prerequisite:** Writing Level 4 or minimum 2.0 in ESLP035 or ESLP115 concurrently

**Recommended:** Minimal typing skills desirable

This course is designed for advanced non-native speakers of English who need to improve the grammar of their writing. Emphasis is on editing skills. Student will keep a language learning journal to identify their own patterns of errors. Students will learn strategies for acquiring correct grammatical structures and will learn to edit their own writing. (F,Sp)

- ESLP110 Bridge to Academic Reading** 4  
**Prerequisite:** Minimum 2.5 in (ESLP034 and ESLP035) or Placement Test  
 Designed for low-advanced level non-native speakers of English needing to prepare for reading college-level texts. Emphasis on building teamwork skills, vocabulary, and developing reading strategies and skills to improve overall comprehension. A basic skill reading level 3 is granted upon successful completion of this course. (F,Sp)
- ESLP113 Academic Listening/Notetaking** 4  
**Prerequisite:** Minimum 2.5 in ESLP036 or Placement Test  
 This course is designed for advanced level non-native speakers of English who wish to pursue an academic degree or transfer program. Emphasis will be on improving overall listening comprehension, identifying the organizational structure of academic lectures, taking effective notes from a variety of sources, and improving vocabulary. (F,Sp)
- ESLP114 Academic Reading Skills** 4  
**Prerequisite:** Minimum 3.0 in ESLP110 or Reading Level 4  
 Designed to prepare advanced level non-native speakers of English for future academic success. Emphasis is on vocabulary building and developing reading strategies and skills, including critical reading for efficient processing of general academic texts. Basic skills reading level 5 is granted upon successful completion of this course. (F,Sp,Su)
- ESLP115 Composition Academic Purposes** 4  
**Prerequisite:** Minimum 2.5 in ESLP035 or Placement Test  
 Designed to prepare advanced level non-native speakers of English for future academic success. Students use a process approach to writing to produce various types of essays using a variety of complex sentences and grammatical structures. Basic skills writing level of 4 is granted upon successful completion of this course. (F,Sp,Su)
- ESOL – English for Speakers of Other Languages**
- ESOL050 Basic Reading and Speaking Skills** 6  
**Prerequisite:** Placement Test  
**Recommended:** ESOL055 concurrently  
 Designed for high-beginning level ESOL students with basic vocabulary, reading, speaking and listening skills. Emphasis on building these and related skills through multicultural mixed-genre readings and a variety of controlled communication activities leading to more independent learning. Interactive software use required in computer lab work. (F,Sp)
- ESOL055 Grammar and Sentence Writing Skills** 6  
**Prerequisite:** Placement Test  
**Recommended:** ESOL050 concurrently  
 Designed for high-beginning level ESOL students who need to learn the fundamentals of the English grammar system using Standard Written English to write clear and complete sentences. Course related computer technology will be introduced. Some lab hours are required. Class readings will help students improve knowledge of American history and culture. (F,Sp)
- ESOL070 Intermediate Reading and Speaking Skills** 6  
**Prerequisite:** Minimum 2.5 in ESOL050 or ESLP014 or Placement Test  
**Recommended:** ESOL075 concurrently  
 Designed for intermediate level ESOL students who will develop higher level reading, speaking, listening, and other related skills. Focus on theme-based, guided communication activities, oral reports, and increased responsibility for own independent learning. Continued emphasis on vocabulary building. Interactive software use and word-processing required in computer lab work. (F,Sp)

- ESOL075 Grammar and Paragraph Writing Skills** 6  
**Prerequisite:** Minimum 2.5 in ESOL055 or ESLP015 or Placement Test  
**Recommended:** ESOL070 and ESLP100 concurrently  
 Designed for intermediate level ESOL students. Emphasis is on form and usage of the verb tense system in Standard Written English and on fundamentals of paragraph writing. A process approach to writing is used. Typing skills will be required by end of semester. Some lab hours are required. Class reading emphasizes American history and culture. (F,Sp)
- ESOL090 High Inter. Reading and Speaking Skills** 6  
**Prerequisite:** Minimum 2.5 in ESOL070 or ESLP024 or Placement Test  
**Recommended:** ESOL095 concurrently  
 Designed for high-intermediate ESOL students who are advanced readers and independent learners. Interaction with complex theme-based readings, and participation in higher level communication activities, including oral presentations and sustained, tense-appropriate narration. Emphasis on vocabulary expansion. Word processing, email, and use of interactive software required in computer lab work. (F,Sp)
- ESOL095 Grammar and Essay Writing Skills** 6  
**Prerequisite:** Minimum 2.5 in ESOL075 or ESLP035 or Placement Test  
**Recommended:** ESOL090 and ESOL100 concurrently  
 Designed for high-intermediate level ESOL students. Emphasis is on form and usage of perfect verb tenses and complex sentence structures in Standard Written English, and on fundamentals of essay development. Typing skills and some lab hours are required. A process approach to writing is used. Class readings emphasize American history and culture. (F,Sp)

**FASH – Fashion**

- FASH100 Fashion Sketching** 3  
**Prerequisite:** Reading Level 3 and Writing Level 2  
**Recommended:** INTR105  
 Students will learn the techniques of fashion sketching and producing fashion illustrations using various media. Topics will include figure croquis, garments, design and inspiration, pattern flats, and computer applications. Students will produce a fashion portfolio. (F,Sp)
- FASH101 Special Topics in the Fashion Industry** .25-8  
**Prerequisite:** Determined by Unit Section  
 The Special Topics Series in Fashion offers students the opportunity to acquire new skills and knowledge. A variety of topics related to the Fashion Industry prepares students to learn up-to-date content for the twenty-first century workplace. Topics may vary with semester and section offering. (F,Sp,Su)
- FASH110 Computer Aided Design & Color** 3  
**Prerequisite:** Reading Level 3 and Writing Level 2  
**Recommended:** (CITF108 or CITF110 or METD105 (previously CADD105) or concurrently or equivalent) and INTR105  
 Students will develop a foundation in the fundamentals of design theory with computer applications. Topics will include elements and principles of design, color principles, theories and systems, color mixing, hue, value and intensity. (F,Sp)
- FASH115 Wedding Planning** 3  
**Prerequisite:** Reading Level 4 and Writing Level 2  
 This course provides the skills necessary for those interested in becoming wedding consultants. Students will be provided with learning activities and exposure to various sectors of the wedding industry. Topics included in course are wedding etiquette, budgeting, organizing, and creative planning. (F,Sp)



- FASH120 Introduction to Fashion Industry** 3  
**Prerequisite:** Reading Level 3 and Writing Level 2  
This course is an introduction to the fashion industry including apparel, textiles, manufacturing, global marketing, merchandising, retailing and eCommerce. (F,Sp)
- FASH125 Apparel Construction I** 4  
**Prerequisite:** Reading Level 3 and Writing Level 2  
In this basic clothing construction course, students will apply industrial stitching and finishing practices and assemble beginning sample-room garments in woven fabrics. The class will study core operations used to assemble most garments. (F)
- FASH127 Apparel Construction II** 4  
**Prerequisite:** Minimum 2.0 in FASH125 and Reading Level 3 and Writing Level 2  
**Recommended:** INTR185 and FASH130  
In this intermediate clothing construction course, students will continue developing industrial sewing skills including assembling and finishes of more complex sample-room garments in various fabrics. The class will study additional production operations used to assemble more difficult garments. (Sp)
- FASH130 Apparel Analysis and Selection** 3  
**Prerequisite:** Reading Level 3 and Writing Level 2  
Students will study methods of evaluating the quality and production of ready to wear apparel. Topics include cost and quality of various apparel and home fashion products for mass production. (F)
- FASH144 Visual Merchandising & Display** 3  
**Prerequisite:** Minimum 2.0 in FASH110  
**Recommended:** INTR105 or concurrently or equivalent  
Students will apply the elements and principles of design in visual merchandising and display. Students will identify and explain the use of display fixtures and lighting systems, apply color theory and present merchandise effectively in visual display. (Sp)
- FASH150 Apparel and Textile Design** 3  
**Prerequisite:** Minimum 2.0 in FASH110  
**Recommended:** INTR105 and (INTR185 or concurrently)  
Students will study the development and production of textile and apparel designs and patterns via selected computer-software packages. Implications for use in the textile and apparel industry will be discussed. (Sp)
- FASH230 Costume History** 3  
**Prerequisite:** Reading Level 5 and Writing Level 6  
Students will learn the political, economic, technological and sociological factors that have influenced world costumes worn by individuals and groups of men, women and children from ancient times to the present. (F)
- FASH250 Adv Computer Aided Textile/Apparel Dsgn** 3  
**Prerequisite:** Minimum 2.0 in FASH150  
Students will solve advanced design and trend analysis problems encountered in designing for the various size ranges, style categories, and price ranges in seasonal lines and promotional groups for the manufacturing of apparel. Students will continue to develop design skills with state-of-the-art and industry computer software programs. (F)

- FASH260 Fashion Merchandising Planning & Control** 3  
**Prerequisite:** Minimum 2.0 in (MATH117 or MATH118 or Math Level 5)  
**Recommended:** CITA126  
Students learn how to solve problems in retailing, merchandising and marketing based upon formulas and fashion industry practices using computer applications. Topics include planning, buying and selling for the fashion industry. (Sp)
- FASH263 Fashion Industry Internship** 2-4  
**Prerequisite:** Department Approval  
**Recommended:** 2.0 GPA in FASH or INTR program  
Directed worksite experience in the fashion design and merchandising industry. Students will maintain a fashion journal. Regular scheduled progress reports will be given and discussed with a supervising faculty member. (Su)
- FASH270 Fashion Portfolio** 2  
**Prerequisite:** Minimum 2.0 in (FASH100 and FASH110)  
**Recommended:** FASH150  
Students will develop and preserve their best visual works in this capstone course. Students will continue to develop skills in color rendering using various media and will use computers to digitize their work. Upon completion, students will have developed a format to present their work to obtain immediate employment or transfer. (Sp)
- FASH275 Directed Study in Fashion** 1-4  
**Prerequisite:** Department Approval  
**Recommended:** 2.0 GPA and 20 credits completed in FASH and/or INTR  
This class provides advanced students an opportunity to explore, under the direction of an instructor, topics which are not addressed in the fashion curriculum. This can include special projects, field study including travel, research, or other directed study topics in Fashion Technology. Grading criteria and course objectives are determined at the first meeting. (F)

**FILM - Film Production and Direction**

- FILM118 Fundamentals of Film Production** 4  
**Prerequisite:** None  
Introduces storytelling practices using moving pictures. Students will learn to plan and produce short movies, and develop basic skills in plot structure, pre-production, directing, staging scenes, videography, cinematography, non-linear computer editing, traditional film editing, and audience evaluation. (F,Sp,Su)
- FILM130 Film Studies: World Cinema** 3  
**Prerequisite:** Reading Level 5 and Writing Level 6  
Explores the art and craft of cinema storytelling in social, cultural and political systems outside of the traditional American "Hollywood" system. Through exposure to films created by international filmmakers, the developing student will expand their repertoire of techniques used to express classic themes in cinema. (F,Sp)
- FILM200 Employment Issues in Film** 1  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Restriction:** FILM Majors only  
This course will develop an individual's understanding of motion picture industry issues particularly as they relate to organizational and self employment. Class sessions and assignments contain practical exercises aimed at developing the individual's employability skills. Film majors will enroll in this course over a three semester sequence to complete all learning outcomes. (F,Sp)

**FILM203 Special Topics in Film** 3  
**Prerequisite:** Determined by Unit Section  
 Provides students with basic photographic skills, an opportunity for intensive study in selected aspects of motion picture production, or multi-media production. (F,Sp,Su)

**FILM220 Screenwriting** 3  
**Prerequisite:** Minimum 2.0 in WRIT121 or Writing Level 8  
**Recommended:** FILM118  
 An introductory course in screenwriting. Students will learn the structure and format of screenplays, including plot development and creation of well-built characters. Real-life considerations of script marketing and relevant practices will also be covered. Those wishing to do advanced work may take an additional semester for credit. (F,Sp)

**FILM226 Film & Video Cinematography** 4  
**Prerequisite:** Minimum 2.0 in (FILM118 or MTEC152)  
 This is an intermediate-level course that exposes the student to advanced storytelling practices using film and digital video technologies. Hands-on production exercises help the student to develop skills in production and post-production planning, electronic and film cinematography, film editing, and non-linear video editing techniques. (F,Sp)

**FILM227 The Film Director** 4  
**Prerequisite:** Minimum 2.0 in FILM118  
 Storytelling practices emphasizing dialog. Hands-on production exercises develop skills in script writing, production planning, sync sound recording, film and video editing, and working with actors and crew members. Students work individually and as group members, and apply critical thinking and problem-solving processes to produce effective communications programs. (Sp)

**FILM281 Motion Picture Internship** 3  
**Prerequisite:** Minimum 2.0 in FILM226 and (FILM227 or IMAG227)  
**Restriction:** Motion Picture Production and Motion Picture Direction Majors  
 An off-campus field study. Students will gain pre-career experience by working in a motion picture production environment under the supervision of a professional producer or technician. Regularly scheduled progress reports will be given and discussed with a supervising faculty member. Students work a minimum of 160 hours per semester. (F,Sp,Su)

**FILM290 Motion Picture Portfolio** 4  
**Prerequisite:** Minimum 2.0 in FILM226 and (FILM227 or IMAG227)  
**Restriction:** Motion Picture Production and Motion Picture Direction Majors  
 The student will produce a motion picture, demonstrating technical and creative proficiency, under instructor supervision, suitable for presentation for the purpose of securing employment. This course is intended to be the capstone course in the Motion Picture Program. (F,Sp,Su)

**FIRE - Fire Science**

**FIRE100 Principles of Emergency Services** 4  
**Prerequisite:** Reading Level 5 and Writing Level 4  
 This course provides an overview to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; and fire service nomenclature. (F,Sp)

**FIRE101 MI F.F.T.C. Basic Fire Level I** 9  
**Prerequisite:** Admission to Fire Academy and Reading Level 5 and Writing Level 4  
**Co-requisite Course(s):** FIRE102 and PFFT119  
 Level I is basic training required for all firefighters in the State of Michigan. Training is certified by the Michigan Fire Fighters Training Council and includes the basics of fire suppression, apparatus operation, life safety, and physical fitness. (F,Sp)

**FIRE102 MI F.F.T.C. Basic Fire Level II** 7  
**Prerequisite:** Admission to Fire Academy and Reading Level 5 and Writing Level 4  
**Co-requisite Course(s):** FIRE101 and PFFT119  
 Level II is basic training required for all career firefighters in the State of Michigan. Training is certified by the Michigan Fire Fighter's Training Council and includes advanced fire suppression, aerial operation, life safety, and physical fitness. (F,Sp)

**FIRE104 Fire Behavior & Combustion** 3  
**Prerequisite:** (Minimum 2.0 in FIRE100 or concurrently) or (minimum 2.0 in FIRE101 and FIRE102)  
 This course explores the theories and fundamentals of how and why fires start and spread. (Sp)

**FIRE105 Fire/Hydraulics/Water Supply** 4  
**Prerequisite:** (Minimum 2.0 in FIRE100 or (FIRE101 and FIRE102)) and (minimum 2.0 in MATH107 or Math Level 5)  
 This course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems. (F)

**FIRE110 Fire Prevention** 3  
**Prerequisite:** (Minimum 2.0 in FIRE100 or concurrently) or (minimum 2.0 in FIRE101 and FIRE102)  
 This course provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with built-in fire protection systems, fire investigation, and fire and life-safety education. (F)

**FIRE112 Occupational Health & Safety/FireService** 4  
**Prerequisite:** Minimum 2.0 in FIRE104 or concurrently  
 This course introduces the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include risk evaluation and control procedures for fire stations, training sites, emergency vehicles, and emergency situations involving fire, EMS, hazardous materials, and technical rescue. (F)

**FIRE115 Building Construction/Fire Protection** 4  
**Prerequisite:** (Minimum 2.0 in FIRE100 or concurrently) or (minimum 2.0 in FIRE101 and FIRE102)  
 This course provides the components of building construction that relate to fire and life safety. The focus of this course is on firefighter safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at emergencies. (F)

**FIRE122 Hazardous Materials Chemistry I** 4  
**Prerequisite:** Minimum 2.0 in (FIRE104 or concurrently) or (FIRE101 and FIRE102)  
 This course covers basic fire chemistry relating to the categories of hazardous materials including problems with recognition, reactivity, and health encountered by firefighters. (F)

**FIRE125 Fire Protection Systems** 4

**Prerequisite:** Minimum 2.0 in FIRE105 (previously FIRE130)  
This course provides information relating to the features of design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection and portable fire extinguishers. (Sp)

**FIRE150 Strategy and Tactics** 4

**Prerequisite:** (Minimum 2.0 in FIRE101 and FIRE102) or MI F.F.T.C. Fire Fighter I and II Certification  
This course provides an in-depth analysis of the principles of fire control through utilization of personnel, equipment, and extinguishing agents on the fire ground. This course meets the Michigan Office of Fire Fighter Training prerequisites for Fire Officer I and II. (Sp)

**FIRE210 Fire Investigation I** 4

**Prerequisite:** Minimum 2.0 in (FIRE104 or concurrently) or (minimum 2.0 in FIRE101 and FIRE102)  
This course is intended to provide the student with the fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the firesetter, and types of fire causes. (Sp)

**FIRE215 Fire Investigation II** 3

**Prerequisite:** Minimum 2.0 in FIRE210  
This course is intended to provide the student with advanced technical knowledge of rule of law, fire scene analysis, fire behavior, evidence collection and preservation, scene documentation, case preparation and testifying. (F)

**FIRE220 Hazardous Materials/Fire Service** 4

**Prerequisite:** Minimum 2.0 in FIRE104 or (FIRE101 and FIRE102)  
This course explores the concepts and methods of detection, control, and mitigation of hazardous materials incidents. Contains specific elements of NFPA 471, 472 and OSHA CFR 1041.120. (Sp)

**FIRE245 Fire Officer I & II** 4

**Prerequisite:** Department Approval  
This course introduces the firefighter to the duties assigned to company level officers. Topics addressed include budgeting, planning, public relations, personnel management, communications, legal responsibilities, and safety at the company level. This course complies with the Michigan Office of Fire Fighter Training requirements for Fire Officer I and II. (F)

**FIRE250 Fire Administration I** 4

**Prerequisite:** Minimum 2.0 in FIRE150  
This course introduces the student to the organization and management of a fire department and the relationship of government agencies to the fire service. Emphasis is placed on fire service leadership from the perspective of the company officer. (Sp)

**FIRE255 Fire Officer III & IV** 4

**Prerequisite:** Minimum 2.0 in (FIRE245 and FIRE250) or concurrently  
This course provides the basic tools for analyzing and evaluating budgets, programs, policies, personnel and management systems within the fire service organization. Data interpretation and planning are major elements addressed in this course. Enhancement of fire service leadership decision-making capabilities is the primary focus of this course. (Sp)

**FIRE260 Legal Aspects/Fire Service** 4

**Prerequisite:** Minimum 2.0 in FIRE104 or (minimum 2.0 in FIRE101 and FIRE102)  
This course introduces the federal, state, and local laws that regulate emergency services, national standards which influence emergency services, standard of care, tort and liability. Relevant court cases are also reviewed. (F)

**FIRE295 Fire Science Special Topics** .25-8

**Prerequisite:** Determined by Unit Section  
This course offers students the opportunity to learn new fire science career skills and knowledge. Specific up-to-date content will vary with each topic presented and will be related to fire science careers. (F,Sp,Su)

**FLNG - Foreign Language**

**FLNG295 Independent Study in Foreign Language** 1-4

**Prerequisite:** Department Approval  
An opportunity for self-directed learners to explore topics related to, but not taught in the curriculum. Students spend at least two hours per week for each credit. A detailed proposal must be submitted by the student for approval by the Department and supervising instructor prior to registration. (F,Sp,Su)

**FREN - French**

**FREN115 Conversational French I** 3

**Prerequisite:** None  
Students learn how to communicate orally in everyday life situations and in travel abroad. Emphasis is on the development of ability to communicate in French. French culture is explored. (F,Sp,Su)

**FREN116 Conversational French II** 3

**Prerequisite:** None  
**Recommended:** FREN115 or equivalent  
Continuation of FREN115. Designed for advanced beginners who wish to improve their speaking ability in the context of daily living. Emphasis is placed on contemporary vocabulary, essentials of grammar, and pronunciation through class discussions conducted in French. Students will continue to explore different aspects of life and culture in the francophone world. (F,Sp,Su)

**FREN121 Elementary French I** 4

**Prerequisite:** Reading Level 5  
Introductory course for students with little or no knowledge of French. Students are introduced to basic structures of French, enabling them to develop listening, speaking, reading, and writing skills. Emphasis is on contemporary vocabulary, essentials of grammar, and pronunciation. A grade of 2.0 or higher fulfills the Communication Core requirement. (F,Sp,Su)

**FREN122 Elementary French II** 4

**Prerequisite:** Minimum 1.5 in FREN121  
Second course of a two-semester sequence in Elementary French. Introduction to more complex structures and patterns, and more active use of spoken and written French. (Sp)

**FREN201 Intermediate French I** 4

**Prerequisite:** Minimum 1.5 in FREN122  
First course of a two-semester sequence. Course provides grammar review, vocabulary building, listening comprehension, composition writing, group discussions, and readings of literary and cultural texts, short stories, and news articles for a better understanding of the francophone world. (F)

**FREN202 Intermediate French II** 4

**Prerequisite:** Minimum 1.5 in FREN201  
 Second course of a two-semester sequence. Course includes a review of more complex grammar topics, readings of cultural and literary texts, short stories, and newspaper articles for a better understanding of the francophone world. Students will improve fluency through listening-comprehension, writing, and discussions in the target language. (Sp)

**GEOG - Geography**

**GEOG120 Introduction to Geography** 3

**Prerequisite:** Reading Level 5  
**Recommended:** WRIT121  
 An introductory course designed to provide contemporary geographic ideas and mapping techniques to study the interaction between people and their physical environment. Selected topics include soils, land forms, water, climate, natural vegetation, agriculture, urbanization, demographic patterns and resource utilization. (F)

**GEOG121 Physical Geography** 4

**Prerequisite:** Reading Level 5  
**Recommended:** Word software experience  
 Emphasizes landforms, flora and fauna, weather and climatic elements, land forms, mass wasting, hydrology, and soils. Offers an extensive study of these forces and phenomena through lecture and laboratory exercises. This study notes the environmental and ecological interrelationships between flora and fauna, and between the physical world and human society. (F,Sp,Su)

**GEOG200 World Regional Geography** 4

**Prerequisite:** Reading Level 5  
 This course describes and analyzes human relationships with the natural and cultural environment and examines the physical and cultural aspects of the major regions of the world. International interdependency is examined to promote global awareness. (F,Sp,Su)

**GEOG202 Geography of North America** 3

**Prerequisite:** Reading Level 5  
 A study of the human and physical aspects of North America. This course will identify some of the factors that influence the quality of life and give character to each of the various subregions. (Sp)

**GEOG203 Economic Geography** 3

**Prerequisite:** Reading Level 5  
 The study of the distribution of economic activities throughout the world. Emphasizes agriculture, resources, population, industry, urbanization, and trade. (Sp)

**GEOG220 Weather, Forecasting and Climate** 4

**Prerequisite:** Reading Level 5 and Math Level 4  
 Introduces the meteorological and climatological sciences. The basics and the limitations of weather forecasting, as well as climatic data, will be examined. Concepts presented include cloud and precipitation types, cyclonic characteristics, computer guidance analysis, and the importance of physical geography in weather and climate. No science background is presumed. (F)

**GEOG295 Independent Study in Geography** 1-4

**Prerequisite:** Department Approval  
 An opportunity for self-directed learners to explore topics related to, but not taught in the curriculum. Students spend at least two hours per week for each credit. A detailed proposal must be submitted by the student for approval by the Department and supervising instructor prior to registration. (F,Sp,Su)

**GEOL - Geology**

**GEOL221 Physical Geology** 4

**Prerequisite:** Reading Level 5 and Writing Level 4 and Math Level 4  
 This course investigates the dynamic physical earth using a cause-effect theme, and emphasizes relationships of geologic cycles (tectonic/hydrologic) to modifications of earth's crust (e.g., volcanism, mountain building, rivers, glaciers) with introduction to environmental topics and earth resources. Laboratory includes mineral and rock identification, topographic and geologic map interpretation, and plate tectonics exercises. (F)

**GEOL222 Historical Geology** 4

**Prerequisite:** Reading Level 5 and Writing Level 4 and Math Level 4  
 Plate tectonics is used to integrate crustal and organic evolution in the dynamic global system. Includes methods of geologic inquiry and critical evaluation of evidence. Laboratory stresses interpretation of the rock and fossil records, reconstruction of past ecosystems, geologic maps, and plate tectonics' influence on the environment. (Sp)

**GEOL230 Environmental Geology** 4

**Prerequisite:** Reading Level 5 and Writing Level 6 and Math Level 4  
 Concepts of physical geology are applied to human interaction with the environment. Geologic resources (e.g., minerals, energy, and water) and hazards (e.g., earthquakes, landslides, and flooding) are explored. Laboratory includes rock and mineral identification, map reading and interpretation, evaluation of land use alternatives, and problem-solving activities related to environmental issues. (F,Sp)

**GERO - Gerontology**

**GERO100 Introduction to Human Aging** 4

**Prerequisite:** Reading Level 5 and Writing Level 4  
 This course provides a basic orientation to the field of gerontology. Emphasis is on the aging process with respect to personal, socioeconomic and cultural issues. Death and dying are discussed. Students will learn how to access and use community resources to assist older adults and their families. (F,Sp)

**GERO131 Plan for Older Adults w/Develop Disabil** .5

**Prerequisite:** None  
 This course presents an overview of the older adult with developmental disabilities including characteristics, demographics, public policy issues, and functional assessment. Michigan program initiatives are discussed and case studies are presented. (F,Sp)

**GERO164 Medication & Alcohol Use in Older Adults** .5

**Prerequisite:** None  
 This course examines medication and alcohol use among older adults including prescription and nonprescription medicines, side effects, drug interactions, and strategies for using medicines wisely. Students learn to identify a substance abuse situation and how to make appropriate referrals. (F,Sp)

**GERO165 Dementia: Concepts and Causes** .5

**Prerequisite:** None  
 This course is an introduction to current concepts of dementia (Alzheimer's disease and related disorders) in older persons. It provides an overview of social, physical, psychological, and environmental factors associated with dementia. Relationships to depression, techniques for communicating with older persons with dementia, family dynamics, and community resources are discussed. (F,Sp)

**GERO169 Legal Rights of Older Adults .5**

**Prerequisite:** None

This course focuses upon issues such as guardianship, conservatorship, power of attorney, the living will, joint tenancy, nursing home residency, and civil commitment, including actual and perceived choices a person has as aging and illness occur. (F,Sp)

**GERO170 Depression in Late Life: Recog/Treatment .5**

**Prerequisite:** None

This course provides an examination of depression in later life. Symptoms, causes, and assessment of depression are introduced, including distinctions between depression and other conditions. Basic techniques and guidelines for interacting with depressed older persons are presented. (F,Sp)

**GERO171 Techniq: Caring for Persons w/Dementia .75**

**Prerequisite:** None

This course provides an introduction to techniques for working with persons with Alzheimer's disease and related disorders. The psychosocial needs of individuals and their families are a primary focus. Communication strategies, a task breakdown approach, environmental adaptations, addressing challenging behaviors, and the role of the family are discussed. (F,Sp)

**GERO173 Activities: Older Adults w/Alzheimers .5**

**Prerequisite:** None

This course provides an overview of planning principles and processes effective in designing meaningful activities for older adults with Alzheimer's disease and related disorders. Practice opportunities are included. (F,Sp)

**GERO191 Special Topics in Gerontology .25-4**

**Prerequisite:** Determined by Unit Section

This course consists of a series of seminars which address current issues in the field of gerontology. The seminars are designed to provide the most up-to-date information on selected, high-interest subjects concerning human aging. (F,Sp,Su)

**GERO203 Physical/Mental Health Aging 3**

**Prerequisite:** Minimum 2.5 in GERO100 or concurrently

Physical and mental health of older adults is examined from an applied perspective for human services providers. Topics include normal and pathological changes; family and social factors; skills and adaptations for maintaining good physical and mental health; assessment and intervention, and helping older adults access appropriate treatment. (F)

**GRET - Geographic Information Systems**

**GRET175 Special Topics in GIS Technology .25-8**

**Prerequisite:** Determined by Unit Section

This course offers students the opportunity to learn new or advanced skills in Geographic Information Systems Technology and other related topics. Specific content may vary with each offering and will be related to the Geographic Information Systems Technology Program. (F,Sp,Su)

**GRET203 Beginning MicroStation 3**

**Prerequisite:** None

**Recommended:** LAND282 or Basic CAD experience

This entry-level, computer-aided design and drafting course uses MicroStation software on an Intergraph workstation or PC. Students will create 2-D drawings using basic graphic tools and procedures. (F,Sp)

**GRET205 Principles of Geographic Info Systems 3**

**Prerequisite:** None

This course describes the components of a basic GIS and how they are assembled. Requisition of data, maps, and other information used to build a database will be highlighted. A basic pilot project will be demonstrated step-by-step through various applications in GIS. (F,Sp,Su)

**GRET210 Global Positioning Systems 3**

**Prerequisite:** None

This course covers the basic principles necessary to set up, operate, and run a Global Positioning System (GPS) receiving station, as well as collect information with a receiver. Data collection will be incorporated into a computer database program. The information link with Geographic Information Systems (GIS) and the use of GPS in GIS will be demonstrated. (F)

**GRET213 Advanced MicroStation 3**

**Prerequisite:** Minimum 2.0 in GRET203

This course is an advanced application of the MicroStation Software and deals with 3-D and other advanced aspects of this computer-aided drafting and design package. A basic understanding and/or beginning MicroStation class is necessary for success in this class. (Sp)

**GRET220 Hydrological Systems 3**

**Prerequisite:** None

This course will cover the various aspects of water resources as they pertain to the geographic information system environments. Water systems, natural and man-made, will be emphasized. The evaluation, analysis, and environmental impacts of various water features as they pertain to environmental research and development will be highlighted. (F)

**GRET221 Landforms/Soil Systems in GIS 3**

**Prerequisite:** None

This course will discuss the important classifications of landform and soil systems. The relevance of these systems in the GIS environment will be highlighted. The importance of these systems in the information processing, land use, land planning, site design, and landscape form arenas will be emphasized. (Sp)

**GRET223 Environmental Resource Management 3**

**Prerequisite:** None

This course will cover the broad spectrum of environmental resources such as forestry, agriculture, mining, soils, vegetation, and their impact and management in current computer information systems. Resources in the land planning disciplines will be highlighted as to their function in the present environmental processes, both public and private. (Sp)

**GRET240 Cartography in GIS 3**

**Prerequisite:** None

The basic principles, functions, and origins of maps will be discussed. The student will construct various types of maps. Computer-offered map planning and design along with how to read, print, and design maps will also be covered. (F)

**GRET241 Remote Sensing/Air Photo Interpretation 3**

**Prerequisite:** None

This course will include the development of skills necessary for basic interpretation of aerial photography data, how it is collected, and the ability to analyze maps created from the data collected in this method. The current technology and GIS relationship will be highlighted. (Sp)

**GRET243 ORACLE/Geographic Information Systems 3****Prerequisite:** None

This course will cover the components of ORACLE needed to build a database for GIS applications. This is a hands-on computer course. Sample databases will be demonstrated. Students will construct several databases that apply to the GIS coverage layers. (F)

**GRET248 GIS/GPS Field Systems 3****Prerequisite:** None

MicroStation Analyst (MGA) is an advanced software package dealing with GIS MGA, which generates topologically-structured files from design files for use in performing spatial analysis. It will also cover system query sets and answers to questions posed to topological files. (F,Sp)

**GRET253 Basics of ARC/View 3****Prerequisite:** None

This course is an overview and introduction to the ARC/View software. Also covered are the basic components of a viewing program and its applications in GIS. Various demonstrations will be presented and project examples highlighted. Hands-on computer exercises will be completed. (F,Sp)

**GRET255 Beginning ARC/GIS 3****Prerequisite:** None**Recommended:** Computer experience

This course will be an introduction to the use of the ARC/GIS software. ARC/GIS is a leading product used in the design of Geographic Information Systems. Basic product use and modeling will be demonstrated. There will be hands-on experience in the lab. (F,Sp,Su)

**GRET256 Advanced ARC/GIS 3****Prerequisite:** Minimum 2.0 in GRET255

This course advances the techniques acquired in the beginning ARC/GIS class. The student will learn additional modules and advanced application of modules such as GRID and TIN. The student will also develop projects using data sets. Students will develop a complete GIS project utilizing the full ARC/GIS module. (Sp)

**GRET258 ARC/View Extensions GIS 3****Prerequisite:** Minimum 2.0 in GRET253

This course will cover the basic software extensions to the ArcView package. Students will learn the basic commands for the various ArcView extensions. Spatial analysis and other extensions will be highlighted. A GIS project will be completed utilizing all of the various extensions. (Sp)

**GRET265 Analysis Applications in GIS 3****Prerequisite:** Minimum 1.0 in (GRET204 or GRET255)

This course expands upon the techniques, methods, and processes involved in developing a full GIS program. Different GIS software packages will be explored, as well as related databases and completed projects. (Sp)

**GRET266 Project Design in GIS 3****Prerequisite:** Minimum 1.0 in (GRET205 and GRET253 and GRET255)

This course specifically deals with all of the possible application areas for GIS, both present and future. Project application areas such as toxic materials, traffic flow, mining, forestry, natural resource, energy, and communication will be highlighted. A semester-long application project of your choice will be developed on the computer. (Sp)

**GRET280 GIS and Energy 3****Prerequisite:** Minimum 2.0 in (AEET102 and GRET205 and GRET253)

This course will demonstrate the process of designing and mapping energy distribution systems through a Geographic Information System (GIS). GIS and Global Positioning Technologies will be used to create relation maps and databases for a commercial utility project. Mobile GIS technologies utilized by utilities will be demonstrated. This course will include a hands-on project. (F,Sp)

**GRET295 GRET Project Lab 1-4****Prerequisite:** Department Approval

This project lab is designed for students who wish to pursue a specialty area in GIS beyond that which is offered in our curriculum. Inquiry through research and design is required. (F,Sp,Su)

**GRMN - German****GRMN115 Conversational German I 3****Prerequisite:** None

The first course in a two-semester sequence for persons with little or no knowledge of German. Emphasizes listening and speaking skills. Students learn correct pronunciation, essential language structures, and a practical vocabulary applied in conversational exchanges. Aspects of German culture are introduced through multimedia presentations. (F,Sp,Su)

**GRMN116 Conversational German II 3****Prerequisite:** None**Recommended:** GRMN115 or equivalent

The second course in a two-semester sequence for persons with little or no knowledge of German. Emphasizes listening and speaking skills. Students learn correct pronunciation, essential language structures, and a practical vocabulary applied in conversational exchanges. Aspects of German culture are introduced through multimedia presentations. (F,Sp,Su)

**GRMN121 Elementary German I 4****Prerequisite:** Reading Level 5

First course of a two-semester sequence in elementary German. Course offers practice in four language skills: listening comprehension, speaking, reading, and writing. Communicative approach is combined with a solid grammar foundation. Contemporary German life and culture is studied. A grade of 2.0 or higher fulfills the Communication Core requirement. (F)

**GRMN122 Elementary German II 4****Prerequisite:** Minimum 1.5 in GRMN121

Second course of a two-semester sequence in elementary German. This course offers more advanced practice in the four basic language skills: listening comprehension, speaking, reading, and writing. Communicative approach is combined with more complex structure as well as familiarization with contemporary life and culture in Germany, Austria, and Switzerland. (Sp)

**GRMN201 Intermediate German I 4****Prerequisite:** Minimum 1.5 in GRMN122

First course of a two-semester sequence in intermediate German. Intensive practice provided in the basic skills: speaking, listening comprehension, reading, and writing. Includes composition, review of grammar, and viewing and discussion of contemporary German films. Class is taught mainly in German and uses Blackboard technology and Internet searches. (F)

**GRMN202 Intermediate German II** 4**Prerequisite:** Minimum 1.5 in GRMN201

Second course of a two-semester sequence in intermediate German with advanced practice in the basic skills: speaking, listening comprehension, reading, and writing. Includes a review of advanced structures, composition, and viewing and discussion of contemporary German Films. Class is taught mainly in German and uses Blackboard technology and Internet searches. (Sp)

**HEOT - Heavy Equipment Operator Training****HEOT100 Equipment Introduction** 5**Prerequisite:** Department Approval

This course is intended to give the student an overall review of legal and work responsibilities of an operator of heavy construction equipment. Safety, inspections, and familiarization of equipment and operation standards for all major pieces of equipment will be stressed. (F,Sp,Su)

**HEOT110 Part 10 MIOSHA** 1**Prerequisite:** Department Approval

This course will give the student an overall review of OSHA standards associated with the operation of construction equipment. (F,Sp,Su)

**HEOT120 Backhoe Operator** 3**Prerequisite:** Department Approval

This course is intended to train the student to safely inspect and operate a backhoe under conditions normally found on a job site. (F,Sp,Su)

**HEOT121 Excavator Operator** 3**Prerequisite:** Department Approval

This course is intended to train the student to safely inspect and operate an excavator under conditions normally found on a job site. (F,Sp,Su)

**HEOT122 Wheel Loader Operator** 2**Prerequisite:** Department Approval

This course is intended to train the student to safely inspect and operate a wheel loader under conditions normally found on a job site. (F,Sp,Su)

**HEOT123 Forklift Operator** 1**Prerequisite:** Department Approval

This course is intended to train the student to safely inspect and operate a forklift under conditions normally found on a job site. (F,Sp,Su)

**HEOT130 Skidsteer Operator** 2**Prerequisite:** Department Approval

This course is intended to train the student to safely inspect and operate a skidsteer under conditions normally found on a job site. (F,Sp,Su)

**HEOT131 Bulldozer Operator** 3**Prerequisite:** Department Approval

This course is intended to train the student to safely inspect and operate a bulldozer under conditions normally found on a job site. (F,Sp,Su)

**HEOT132 Trenching and Gradework** 3**Prerequisite:** Department Approval

This course is intended to familiarize the student with basic safety practices necessary with trenches and benches and with basic grading and staking. (F,Sp,Su)

**HERT - Heavy Equipment Repair Technician****HERT100 Heavy Engine Rebuild** 6**Prerequisite:** Department Approval

Upon completion of this course the successful student will be able to efficiently and accurately rebuild a heavy duty diesel engine. (F)

**HERT101 Heavy Equipment Electronics** 5**Prerequisite:** Department Approval

Upon completion of this course the successful student will be able to diagnose and repair electrical problems on heavy duty equipment. (Sp)

**HERT102 Equipment Hydraulics** 6**Prerequisite:** Department Approval

Upon completion of this course the successful student will be able to diagnose and repair hydraulic problems found typically on heavy duty construction equipment. (F)

**HERT103 Diesel Fuel System** 4**Prerequisite:** Department Approval

Upon completion the successful student will be able to diagnose and repair fuel system failures found on heavy diesel engines. (Su)

**HERT104 Equipment Powertrain** 5**Prerequisite:** Department Approval

Upon completion of this course the successful student will be able to diagnose and repair powertrain components in heavy duty equipment. (Sp)

**HERT105 Equipment Service Writing** 4**Prerequisite:** Department Approval

Upon completion the student will be able to make repair estimates on a disabled piece of construction equipment. (Su)

**HERT210 Heavy Equipment Internship** 3**Prerequisite:** Department Approval

Students earn credits while employed performing duties associated with the heavy equipment operator or repair technician occupations. The student will work under the general supervision of an experienced equipment operator or repair technician and will learn current industry practices. The program coordinator must approve the training station and working conditions. (F,Sp,Su)

**HIST - History****HIST150 African-American History** 4**Prerequisite:** Reading Level 5

Traces the developments which led to the African slave trade, the slave systems in North and South America, the cultural heritage of the African American in the Americas, and the problems of race in North American culture. (Sp)

**HIST210 Studies in American History** 4**Prerequisite:** Reading Level 5

Covers problems of research, writing, philosophy, and interpretation of history, involving a detailed examination of a particular area of American history. (Su)

**HIST211 U.S. History to 1877** 4**Prerequisite:** Reading Level 5 and Writing Level 6

A political, legal, economic, social and cultural history of the United States from colonial beginnings to 1877. (F,Sp,Su)

**HIST212 U.S. History: 1877 to Present** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
 A political, legal, economic, social, and cultural history of the United States from the end of reconstruction to the present. (F,Sp,Su)

**HIST214 African History** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** WRIT121 or WRIT131  
 Surveys African history with emphasis on pre-colonial and colonial Africa, nationalism and the struggle for independence, colonialism and economic development/underdevelopment, and cultures and traditions as factors in development. (F)

**HIST220 Michigan History** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** WRIT121 or WRIT131  
 A survey of the political, economic, and social development of Michigan from precolonial times to the present. (F)

**HIST230 British History** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** WRIT121 or WRIT131  
 A survey of the political, economic, legal, constitutional, and social forces which shaped British history and society from earliest times to the present with special emphasis on the interactions of British and American institutions, values, and ideas. (Sp)

**HIST240 Latin American History** 4  
**Prerequisite:** Reading Level 5  
**Recommended:** WRIT121 or WRIT131  
 A survey of the history and culture of Latin America from pre-Columbian civilizations to the present. This course will examine political, social, and cultural developments in Latin America and assess the role of colonialism, nationalism, and world economic trends in shaping Latin American countries. (Sp)

**HIST250 History of Modern Asia** 4  
**Prerequisite:** Reading Level 5  
**Recommended:** WRIT121 or WRIT131  
 This course will survey political, social, and economic developments as well as principal cultural trends in the major civilizations of Asia (excluding Western Asia) from approximately the 17th Century to the present. The course will also include an examination of the interactions among Asian societies and between Asia and the West. (F)

**HIST260 Conflict & Revolution in Southern Africa** 4  
**Prerequisite:** Reading Level 5  
**Recommended:** WRIT121 or WRIT131  
 Study of historical-cultural origins and contexts of conflicts in Zimbabwe and Southern Africa with emphasis on socioeconomic causes of conflicts, cultural differences and conflicts, problems of development as sources of conflicts, inter-African conflicts, settler-African conflicts, international dimensions of conflicts, and solutions to conflicts. (Sp,Su)

**HIST263 Seminar: Modern Russia** 3  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** WRIT121 or WRIT131  
 A survey of Russia and its people from the Russian Revolution of 1917 to the present. Also examined are the multinational character of the former USSR and the forces that shaped Soviet history, society and politics, including Russian relations during the Cold War and after. (Su)

**HIST295 Independent Study in History** 1-4  
**Prerequisite:** Department Approval  
 An opportunity for self-directed learners to explore topics related to, but not taught in the curriculum. Students spend at least two hours per week for each credit. A detailed proposal must be submitted by the student for approval by the Department and supervising instructor prior to registration. (F,Sp,Su)

**HMFS - Hospitality Management and Food Service**

**HMFS101 Introduction to Hospitality and Tourism** 3  
**Prerequisite:** Reading Level 3 and Writing Level 4  
 Career opportunities in various types of hotels, restaurants and tourism operations are discussed; includes trends and explains the importance of the various segments as they work together to provide quality guest service. (F,Sp,Su)

**HMFS110 Sanitation and Safety** 3  
**Prerequisite:** None  
 Safe food handling, prevention of food spoilage, and transfer of bacteria, maintenance of equipment and facilities, and importance of good personal hygiene in the work place are discussed; HACCP explained. OSHA laws described and illustrated. Includes examinations for national and state sanitation. (F,Sp,Su)

**HMFS125 Hospitality Service Excellence** 4  
**Prerequisite:** None  
 This course is designed to provide a foundation in dining room operations, the art of excellent service, creating positive guest relations, and hospitality professionalism. Students will learn to develop critical thinking and interpersonal skills as they relate to superior service, variety of table service styles and professional etiquette. Focus is on the dynamics of providing total customer satisfaction. (F)

**HMFS131 Food Production Basics** 4  
**Prerequisite:** Minimum 2.0 in HMFS101 or concurrently  
**Recommended:** Minimum 2.0 in HMFS110  
 This course provides an overview of food preparation techniques and dining room service in both lecture and lab setting. Focus is placed on proper use of kitchen equipment, purchasing procedures, cooking methods, knife skills, soups, sauces, vegetable and meat cookery, quality guest service and basic food production. (F,Sp)

**HMFS132 Culinary Artistry** 4  
**Prerequisite:** (Minimum 2.0 in HMFS110 or concurrently) and (minimum 2.0 in HMFS131)  
**Recommended:** Minimum 2.0 in (HMFS101 and HMFS135)  
 This course presents advanced food preparation procedures with guidelines on organization of food and beverage production. Food purchasing and proper storage prior to production is examined. The course also includes terminology, theory, planning, organization, productivity techniques, costing, purchasing, sales, service, and management of meals for public consumption. (F,Sp)

**HMFS134 Nutrition and Healthy Eating** 3  
**Prerequisite:** None  
 Eating out sensibly discussed plus explanation of nutrients and their role in maintaining health. Examination of food patterns, weight control and maintaining a healthy lifestyle with reasonable exercise. Includes nutritional analysis of 24-hour food consumption. (F,Sp)



**HMFS135 Hospitality Purchasing** 3**Prerequisite:** Minimum 2.0 in HMFS101 or concurrently**Recommended:** Minimum 2.0 in HMFS131

Responsibilities of a purchasing agent and role with vendors in an effective purchasing program are explained; focus on writing specifications, purchasing for all categories of foods and supplies, cutting test procedures and standard receiving practices. Emphasis on how to make effective managerial purchasing decisions. (F)

**HMFS137 Catering Management** 4**Prerequisite:** None**Recommended:** Minimum 2.0 in (HMFS110 and HMFS132 and HMFS135)

Sequential steps to successful catering are presented from determining client needs, planning of menus, purchasing, costing and pricing events establishing equipment requirements, examining both on and off-premise functions, recognizing sanitation concerns, and designing contractual agreements with clients. Lab preparation and presentation of a catered event. (Sp)

**HMFS170 Menu Management and Design** 3**Prerequisite:** Minimum 2.0 in HMFS131 or concurrently**Recommended:** Minimum 2.0 in (HMFS101 and HMFS135)

Design a menu using accurate descriptive terms, calculation of selling prices, layouts recommended, selection of fonts and colors. Includes analysis of menus including accuracy (truth in menu), the menu as a marketing tool, and current trends. Semester project included. (F)

**HMFS177 Intro to Hotel/Food Service Operations** 1**Prerequisite:** None

An introduction to the hotel-motel-food service industry, its management departments, and responsibilities. Designed specifically for Japan Adventure and Japan Horizon students. (F,Sp,Su)

**HMFS190 Internship** 3**Prerequisite:** Department Approval**Recommended:** Have completed a minimum of 30 credits

This 200 hour internship is a capstone course required for all Hospitality students that will provide hands-on experience in a food service facility or lodging property. The rotational work experience and required course projects will coincide with industry principles, techniques, skills, and procedures mastered in previous courses. Students are responsible to find their own internship site. (F,Sp)

**HMFS203 Hospitality Law** 3**Prerequisite:** Minimum 2.0 in HMFS101 or concurrently**Recommended:** Minimum 2.0 in (HMFS131 and/or HMFS206)

Legal problems and issues commonly faced in hospitality operations including rights and responsibilities of innkeepers, restaurants, caterers, and other food establishments, guest relationships, guest property rights frauds, employment safety, tax and liquor laws. Current court cases discussed. (Sp)

**HMFS204 Hospitality HR Management** 3**Prerequisite:** None**Recommended:** HMFS101 and HMFS170 and HMFS203

Supervisor's role as a leader, coach and personnel manager; topics include managing culturally diverse workers plus recruitment, selection, orientation, training, evaluating, and disciplining employees. Discussion on retaining employees, sexual harassment, and worker motivation. (F,Sp)

**HMFS205 Hospitality Leadership** 3**Prerequisite:** Minimum 2.0 in HMFS101 or concurrently**Recommended:** Minimum 2.0 in (HMFS131 and HMFS203 and HMFS204)

This course takes a look at principles, practices and activities needed to become a leader in today's hospitality industry. Topics include principle centered leadership, proactive leadership activities, advanced planning methods for successful leadership, balancing leadership and personal activities and recognizing, developing and maintaining habits that will produce positive outcomes for both leaders and employees of the industry. (F,Sp)

**HMFS206 Rooms Division Management** 3**Prerequisite:** Minimum 2.0 in HMFS101 or concurrently

Reservation and sale of hotel rooms, operation of front office, review of check-in and check-out procedures, credit card processing, property security, daily audit and the importance of keeping accurate records. Includes yield management and determining room rates, forecasting based on statistical analysis, posting accounts and budgeting. (Sp)

**HMFS215 Hospitality Sales and Marketing** 3**Prerequisite:** Minimum 2.0 in HMFS101 or concurrently**Recommended:** Minimum 2.0 in (HMFS131 and/or HMFS206) and HMFS170

Design and evaluation of sales promotions, strategic marketing plans and marketing alternatives; includes techniques for market analysis, needs assessment and creation of packages and joint ventures such as co-branding. Trends in branding and methods to evaluate marketing effectiveness will be discussed. Project included. (F,Sp)

**HMFS229 Convention and Meeting Management** 3**Prerequisite:** Minimum 2.0 in HMFS101 or concurrently**Recommended:** Minimum 2.0 in (HMFS131 and/or HMFS206) and HMFS170

Determining client needs, evaluating capability of facility and community resources and marketing for convention business is included. Methods of evaluating successful conventions and meetings are examined and the use of software programs to book events and maintain client records. (Sp)

**HMFS232 Food and Labor Cost Control** 3**Prerequisite:** Minimum 2.0 in (HMFS131 or concurrently) and (minimum 2.0 in ACG101 and Math Level 4)

Strategies for making a profit and controlling food, beverage, and labor costs are examined. Includes discussion of quality versus cost issues and an analysis of records to detect problems. Includes examination of facility management strategies to reduce costs and save energy. Methods for increasing revenues are discussed and evaluated. (F,Sp)

**HMFS240 Current Topics in Hospitality** 3**Prerequisite:** Minimum 2.0 in HMFS101**Recommended:** Minimum 2.0 in (HMFS203 and HMFS206 and HMFS215)

This course provides an examination of current trends, issues and topics affecting the hospitality industry. Each offering will change emphasis with possible topics such as Internet marketing, projected and pending legislation, casino and resort management, technological advancements, facilities management, leadership development, and industry globalization. (F,Sp)

<p><b>HMFS250 Wines of the Southern Hemisphere</b> 1</p> <p><b>Prerequisite:</b> Must be 21 years of age</p> <p>This course will provide an introduction to the various wine growing regions, the grape varieties grown, and the types of wine produced in various countries in the Southern Hemisphere. Availability of the wines and suitable food pairings will also be addressed. Students will be engaged in the evaluation of wines based on appearance, bouquet and taste. (F)</p>	<p><b>HMFS264 Gourmet Barbecue Cookery</b> 2</p> <p><b>Prerequisite:</b> None</p> <p><b>Recommended:</b> HMFS110</p> <p>Innovative approaches to preparing flavorful grilled foods; includes meats, vegetables, hors d'oeuvres, plus salads and desserts. Learn how to create memorable picnics! Preparation and evaluation of meals included; opening and closing kitchen procedures practiced. (F,Sp,Su)</p>
<p><b>HMFS251 Wine Appreciation</b> 1</p> <p><b>Prerequisite:</b> Must be 21 years of age</p> <p>Selection and storage of five basic wine types, how they are made and served; evaluation of wines based on appearance, bouquet and taste. Discussion on food compatibility with comparative taste evaluations. (F,Sp)</p>	<p><b>HMFS266 Gourmet Chinese Cookery</b> 2</p> <p><b>Prerequisite:</b> None</p> <p><b>Recommended:</b> HMFS110</p> <p>Learn basic techniques in the preparation of popular favorites such as sweet and sour pork, chicken almond ding and egg rolls; emphasis on proper saute' methods and "red" cooking techniques. Preparation and evaluation of meals included for diverse taste, texture, and aroma; opening and closing kitchen. (Sp)</p>
<p><b>HMFS252 Wines of America</b> 1</p> <p><b>Prerequisite:</b> Must be 21 years of age</p> <p>A study of the wine making industry in America with emphasis on wines from California, New York, Michigan and Ohio. Comparative taste evaluations and discussion of food compatibility. (F)</p>	<p><b>HMFS268 Gourmet Middle Eastern Cookery</b> 2</p> <p><b>Prerequisite:</b> None</p> <p><b>Recommended:</b> HMFS110</p> <p>Unique ingredients and preparation procedures from various Middle Eastern countries are examined and explained. Includes preparation of entrees, side dishes, and desserts followed by detailed evaluations as to quality and customer acceptability. Preparation and evaluation of meals included; opening and closing kitchen procedures practiced. (F,Su)</p>
<p><b>HMFS253 Wines of France</b> 1</p> <p><b>Prerequisite:</b> Must be 21 years of age</p> <p>Examine, in depth, the history and regional differences exhibited by the major wine producing areas of France - the world's leader and most famous wine producer. Through tasting, students will travel through the regions of Bordeaux, Burgundy, Champagne, Alsace, Rhone, and Loire River Valley. (Sp)</p>	<p><b>HMFS270 Vegetarian Cuisine</b> 2</p> <p><b>Prerequisite:</b> None</p> <p>This course will examine the growing trend of vegetarian cookery and how it has evolved over the years. Information will be provided on the different types of vegetarian cuisines, as well as how this has impacted today's lifestyles. Preparation and evaluation of meals included; opening and closing kitchen procedures practiced. (F,Sp)</p>
<p><b>HMFS254 Mixology</b> 4</p> <p><b>Prerequisite:</b> None</p> <p>Mixology is designed for students who would like to enhance their income as a bartender as well as students who plan on making the hospitality industry their life's vocation. Students will learn about service, beer, wine, spirits, bar equipment, sanitation, skills needed to handle alcohol-related issues and prepare 150 mixed drinks. (F,Sp,Su)</p>	<p><b>HMFS272 The Cuisine of India</b> 2</p> <p><b>Prerequisite:</b> None</p> <p>This course is designed to explore foods from India, including an introduction to Indian cuisine, its history, indigenous foods, herbs and spices used, and geography. Indian cuisine has a very rich history. Its taste is varied by region being simple, flavorful, colorful, and at times very intense. Preparation and evaluation of meals included; opening and closing kitchen procedures practiced. (F,Sp)</p>
<p><b>HMFS260 Gourmet Basic Cookery</b> 2</p> <p><b>Prerequisite:</b> None</p> <p><b>Recommended:</b> HMFS110</p> <p>Beginning basics of menu planning, recipe selection, purchasing of ingredients, correct preparation, and service. Cost issues and sanitation concerns emphasized. Preparation and evaluation of meals included. (F,Sp)</p>	<p><b>HMFS273 Gourmet Cajun Cookery</b> 2</p> <p><b>Prerequisite:</b> None</p> <p><b>Recommended:</b> HMFS110</p> <p>Louisiana is home of Cajun and Creole cooking. Learn how to prepare a variety of recipes from this popular cuisine utilizing different herbs, spices, and techniques. Preparation and evaluation of meals included; opening and closing kitchen procedures practiced. (Sp)</p>
<p><b>HMFS261 Gourmet Italian Cookery</b> 2</p> <p><b>Prerequisite:</b> None</p> <p><b>Recommended:</b> HMFS110</p> <p>Regional and national foods from Italy with specialty menus from each major region. Meal planning, food purchasing, and food preparation included. Local community experts contribute their expertise to the class. Preparation and evaluation of meals included; opening and closing kitchen procedures practiced. (F,Sp)</p>	<p><b>HMFS274 Gourmet Lean Cookery</b> 2</p> <p><b>Prerequisite:</b> None</p> <p><b>Recommended:</b> HMFS110</p> <p>Healthy ingredient alternatives examined to reduce the fat, salt, and calories in preparation of a variety of favorite recipes. Includes discussion of food composition and making healthier food choices through improved purchasing decisions. Preparation and evaluation of meals included; opening and closing kitchen procedures practiced. (F,Sp)</p>
<p><b>HMFS263 Gourmet American Cookery</b> 2</p> <p><b>Prerequisite:</b> None</p> <p><b>Recommended:</b> HMFS110</p> <p>Explore why the U.S. is considered "the Melting Pot" of the world. During this course, you will travel through 8 different regional cuisines. Sanitation, nutrition, and personal hygiene are essential topics, along with various kitchen safety practices. (F,Sp,Su)</p>	

**HMFS275 Bakery Production** 4  
**Prerequisite:** None  
**Recommended:** HMFS110  
 Learn the roles of each baking ingredient, formula, scaling, mixing, and baking techniques to achieve high quality products. Production of artisan breads, quick breads, laminated doughs, pies, cakes, tortes, butter creams, ganache, pastries, garnishes and sauces made in a commercial bakery. The student will learn to prepare, decorate, portion and plate all items. (F,Sp,Su)

**HMFS276 Ice Carving Seminar** .5  
**Prerequisite:** None  
 This course is designed to expose the student to the tools, techniques, and skills required to carve a block of ice. The student will be carving from a block of ice before the conclusion of the course. This is a hands-on, one-day course. (F,Sp)

**HMFS280 Garde Manger** 3  
**Prerequisite:** None  
**Recommended:** HMFS110 and HMFS132  
 Garnishing and presentation of various cold foods such as canapes, hors d'oeuvres, and vegetable carvings; plus the use of spices, sauces, and dressings. Food sculpting included. Set-up of lunch reception included. Preparation and evaluation of meals included; opening and closing kitchen procedures practiced. (Sp)

**HMFS281 Soups and Sauces** 3  
**Prerequisite:** None  
**Recommended:** HMFS110 and HMFS132  
 Compose several different types of stocks using raw materials. Topics discussed: seasonings in stock, glazes prepared from stocks, preparation of various soups, proper garnish of soups, and major classifications and uses of sauces. (Sp)

**HMFS285 Creative Baking for the Home** 2  
**Prerequisite:** None  
 Learn to bake pies, cookies, breads, muffins, cakes and various other desserts the way your grandmother did. The recipes will change with the seasons of the year. (F,Sp)

### HONR - Honors

**HONR151 Honors Colloquy I** 1  
**Prerequisite:** Honors Program Approval  
 Interdisciplinary forum for Honors Program members and other interested students. Includes presentations by experts in such fields as the arts, business, communication, education, humanities, government, mathematics, science, and the social sciences, followed by discussion. Topics concerning international issues, diversity, and technology are often featured. Students write essays reacting to each presentation. (F)

**HONR152 Honors Colloquy II** 1  
**Prerequisite:** Honors Program Approval  
 Interdisciplinary forum for Honors Program members and other interested students. Includes presentations by experts in such fields as the arts, business, communication, education, humanities, government, mathematics, science, and the social sciences, followed by discussion. Topics concerning international issues, diversity, and technology are often featured. Students write three substantive research papers. (F)

**HONR155 Community Service Practicum I** 1  
**Prerequisite:** Honors Program Approval  
 A practicum course for freshman students requiring a minimum of 32 hours of volunteer service with a community agency of the student's choice and attendance at three classroom discussion sessions. Students will develop practical skills and evaluate their service in terms of its relevance to the community and their educational, career, and life goals. (Sp)

**HONR156 Community Service Practicum II** 1  
**Prerequisite:** Honors Program Approval  
 This is an opportunity for sophomore Honors Program students to volunteer in a community agency of their choice. Students will develop practical skills and evaluate their service in terms of its relevance to the community and their educational, career, and life goals. (Sp)

**HONR295 Honors Independent Study** 1-3  
**Prerequisite:** Honors Program Approval  
 An opportunity for self-directed learners to explore topics related to, but not taught in the curriculum. Students spend at least two hours per week on course work. A detailed proposal must be submitted by the student for approval by the Honors Program Director and supervising instructor prior to registration. (F,Sp,Su)

### HORT - Horticulture

**HORT100 Field Experiences in Horticulture** 2  
**Prerequisite:** None  
 This course will introduce the student to various aspects of the horticulture profession through discussion, videos, slides, field trips, and guest speakers. Topics will include greenhouse operators, bedding plant growers, nursery growers, sod producers, floral shop operators, retail garden centers, and garden suppliers wholesalers. (Sp)

**HORT102 Introduction to Ornamental Horticulture** 3  
**Prerequisite:** None  
 An introductory course involving botanical and horticultural principles and practices. Basic plant structures and their functions as well as soil and plant nutrition are discussed. Job opportunities and the role of horticulture will also be covered. Field trips and laboratory experiments will highlight the course. (F,Sp)

**HORT103 Indoor Plants and Flowers** 2  
**Prerequisite:** None  
 This hands-on course will allow the student to work with various aspects of the growth and propagation of typical flowering and foliage plants. The student will grow a collection of plants and explore various horticultural practices with their own plant material in a laboratory setting. (F,Sp)

**HORT105 Pests and Problems of Ornamental Plants** 3  
**Prerequisite:** None  
 This course is for the professional or homeowner interested in a knowledge of basic environmental and specific pest problems of trees and shrubs. Problems related to soil, light, water, planting, and fertilizer as well as insects, diseases, and vertebrates will be discussed. Integrated pest management and total plant health concepts will form the basis for problem management. (F,Sp)

<b>HORT107 Beginning Floral Design</b>	<b>3</b>
<b>Prerequisite:</b> None	
This is an introductory course for students interested in learning the principles of floral design. Tools and techniques as well as basic arrangement shapes are learned through hands-on experiences. Students will use fresh, silk, and dried flowers to create traditional and contemporary designs. (F,Sp,Su)	
<b>HORT109 Contemporary Floral Design</b>	<b>3</b>
<b>Prerequisite:</b> None	
<b>Recommended:</b> Basic floral design experience	
Contemporary floral designs are taught as well as theme arrangements, tools, and techniques. The basic principles of design are reviewed with the student transferring techniques to stylized arrangements. This is a hands-on course with participants working with floral materials each week. (F,Sp)	
<b>HORT110 Wedding Floral Design</b>	<b>3</b>
<b>Prerequisite:</b> None	
<b>Recommended:</b> Basic floral design experience	
This course is designed for the advanced floral designer who has demonstrated the ability to apply the principles of design. Wedding designs covered include colonial, cascade, crescent, and arm bouquets. This is a hands-on class with students working with floral materials each week. (Sp)	
<b>HORT143 Cut Flowers, Foliage and Potted Plants</b>	<b>4</b>
<b>Prerequisite:</b> None	
The functional aspects of plant material commonly found in the floriculture industry will be covered. The identification of cut flowers, cut foliage, and potted and foliage plants will be required. A course that would benefit the floral designer, greenhouse grower, or landscape designer. (Sp)	
<b>HORT175 Special Topics in Horticulture</b>	<b>.25-8</b>
<b>Prerequisite:</b> Determined by Unit Section	
This course offers students the opportunity to learn new or advanced skills in horticulture and other related topics. Specific content may vary with each offering and will be related to the Horticulture Technology Program and profession. (F,Sp,Su)	
<b>HORT230 Plant Propagation/Nursery Operations</b>	<b>4</b>
<b>Prerequisite:</b> Minimum 1.0 in HORT102	
This course will cover the basics of plant propagation and nursery operations. It will focus on the process of setup, planting, and follow-up maintenance. The tools and techniques of seed propagation, as well as cuttings, grafting, budding, and layering will be emphasized. Knowledge of plant selection, soils, pruning, harvesting, and marketing nursery products will be included. (F)	
<b>HORT235 Greenhouse Structures &amp; Environment</b>	<b>3</b>
<b>Prerequisite:</b> None	
This course is an introduction to the construction and operation of a commercial greenhouse. Types of greenhouses, including construction materials, are discussed. Environmental control such as heating, cooling, and irrigation practices and procedures are presented. In addition, methods of planting, fertilizing, and insect and disease control are also included to provide a basis of knowledge for greenhouse crop production. (F)	
<b>HORT236 Greenhouse Ornamentals</b>	<b>3</b>
<b>Prerequisite:</b> Minimum 1.0 in HORT235	
This is an advanced course for the greenhouse grower. The course will cover the production techniques for cut flowers, holiday crops, and other greenhouse ornamentals. Topics of discussion will include scheduling and timing crops, spacing, production costs, and cultural practices. (F)	

<b>HORT237 Bedding Plant Production</b>	<b>3</b>
<b>Prerequisite:</b> Minimum 1.0 in HORT102	
An advanced course for the greenhouse grower to produce healthy bedding plants at a profit. Topics will include scheduling, spacing, and production costs as well as cultural practices. New varieties will also be presented. (Sp)	
<b>HORT238 Garden Center/Nursery Sales</b>	<b>3</b>
<b>Prerequisite:</b> None	
This course provides business principles for retail sales managers. A thorough discussion of management topics is presented. Emphasis is placed on planning and organizing a garden center, nursery, greenhouse, or florist operation. Effective pricing and merchandising strategies as well as advertising and display techniques are discussed. (Sp)	
<b>HORT295 Horticulture Project Lab</b>	<b>1-4</b>
<b>Prerequisite:</b> Department Approval	
This project lab is designed for students who wish to pursue a specialty area in horticulture beyond that which is offered in our curriculum. Inquiry through research is required. (F,Sp,Su)	

### HUMS - Humanities

<b>HUMS120 Western Art and Music History</b>	<b>4</b>
<b>Prerequisite:</b> Reading Level 5 and Writing Level 4	
An introduction to the masterpieces of art and music from preliterate times to the 20th century. Audio and visual material will be used to illustrate artistic and musical contributions of Europe and America to the development of Western culture. (F,Sp,Su)	
<b>HUMS140 Art of Being Human</b>	<b>4</b>
<b>Prerequisite:</b> Reading Level 5 and Writing Level 6	
Through an interdisciplinary exploration of art, dance, history, literature, music, philosophy, religion, and theater, students will analyze human experience and examine their values. An active learning environment using team-teaching will encourage self-discovery and understanding of the issues and concerns found in the Humanities and Performing Arts. (F)	
<b>HUMS160 Mythology</b>	<b>4</b>
<b>Prerequisite:</b> Reading Level 5 and Writing Level 6	
<b>Recommended:</b> WRIT121 or WRIT131	
Classical Greek and Roman myths constitute the first half of the course with the remainder chosen from at least two of the following areas: African, American, Far Eastern, Medieval European, Near Eastern, or Norse. Reading and analysis of primary sources in translation and their cross-cultural comparison are emphasized. (F,Sp,Su)	
<b>HUMS211 History of Art I</b>	<b>4</b>
<b>Prerequisite:</b> Reading Level 5 and Writing Level 6	
<b>Recommended:</b> WRIT121 or WRIT131	
Surveys the history of painting, sculpture, and architecture of world civilizations in Africa, the Americas, Asia and Europe from preliterate times to the 15th century. Emphasizes analysis and comparison of artistic concepts, styles and techniques; and investigates how the arts reflect ideas, issues, and values of society and the individual. (F,Sp,Su)	
<b>HUMS212 History of Art II</b>	<b>4</b>
<b>Prerequisite:</b> Reading Level 5 and Writing Level 6	
<b>Recommended:</b> WRIT121 or WRIT131	
Surveys the history of painting, sculpture, and architecture of world civilizations in Africa, the Americas, Asia, and Europe from the 15th to the 20th century. Emphasizes analysis and comparison of artistic concepts, styles and techniques; and investigates how the arts reflect ideas, issues, and values of society and the individual. (F,Sp)	

**HUMS213 World Civilizations I** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** WRIT121 or WRIT131  
 Surveys the literature and art, science and technology, and the social and political systems of major civilizations in Africa, Asia, Europe, and the Americas to approximately the 17th century. Emphasizes the contributions of early civilizations to the creativity, richness, and diversity of the human condition. (F,Sp,Su)

**HUMS214 World Civilizations II** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** WRIT121 or WRIT131  
 Surveys the literature and art, science and technology, and the social and political systems of major civilizations in Africa, Asia, Europe, and the Americas from approximately the 17th century to the present. Emphasizes the contributions of modern civilizations to the creativity, richness, and diversity of the human condition. (F,Sp,Su)

**HUMS215 American Civilization** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** WRIT121 or WRIT131  
 This course will explore the cultural foundations of the United States from the period of exploration to the present. This is an interdisciplinary course which examines central themes of American culture and their representation in history, literature, art, philosophy, and religion. (Sp)

**HUMS221 Islamic Civilization** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** WRIT121 or WRIT131  
 This course examines the historical, literary, artistic, religious and philosophical traditions of Islamic civilization in a global context. It emphasizes the richness, diversity and creativity of Islamic civilization from its beginning to the 21st century. (F)

**HUMS225 Great Lakes Native Amer Hist & Tradition** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** WRIT121 or WRIT131  
 Surveys the Great Lakes Native American culture and people, the differences in oral tradition and written histories of the Great Lakes Anishnaabek (First People), the Talking Circle for community problem solving, and an introduction to the language. (F,Sp,Su)

**HUMS260 Seminar: Ancient Egypt** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** WRIT121 or WRIT131  
 This course explores the achievements of one of the earliest and most successful of world civilizations. Developments in Egyptian art, architecture, and literature will be emphasized and the roles of religion, kingship, and geography will be studied. Great discoveries and discoverers of Egyptian archaeology will also be featured. (F)

**HUMS265 Seminar: Ethical Issues in Medicine** 3  
**Prerequisite:** None  
 This course will present some of the ethical dilemmas which arise in relation to health care and develop a framework for ethical decision-making with which to deal with these and other related problems. It is designed for both health care professionals and others who are interested in these issues. (F,Su)

**HUMS295 Independent Study in Humanities** 1-4  
**Prerequisite:** Department Approval  
 An opportunity for self-directed learners to explore topics related to, but not taught in the curriculum. Students spend at least two hours per week for each credit. A detailed proposal must be submitted by the student for approval by the Department and supervising instructor prior to registration. (F,Sp,Su)

**HUSE - Human Services**

**HUSE100 Introduction to Human Services** 3  
**Prerequisite:** Reading Level 3 and Writing Level 4  
 This course presents an overview of human services evolution, the services provided, and the populations served. Emphasis is on community, ethics, and skills used in diverse settings. The approach is generalist in nature. This course complies with the Ethic Standards, National Organization of Human Services. (F,Sp)

**HUSE105 Personal Dynamics/Interviewing** 4  
**Prerequisite:** Reading Level 4 and Writing Level 4  
**Recommended:** Minimum 2.5 in (HUSE100 or SOWK101)  
 The nature of personal development, knowledge and values are examined. The potential influence on rapport is explored. Interviewing techniques of a "helping interview" are demonstrated through role playing, and feedback is provided. This course complies with the Ethic Standards, National Organization of Human Services. (F,Sp)

**HUSE110 Child Abuse and Neglect** 3  
**Prerequisite:** None  
 This course reviews the history and scope of child abuse and neglect, including socioeconomic and psychological factors. It explores the world of abnormal rearing, roles of community agencies and disciplines, approaches to treatment and prevention, coordination of cases and services, and legal aspects and the law. (F,Sp)

**HUSE112 Understanding Substance Abuse** 4  
**Prerequisite:** None  
 Students learn the multiple factors and cycles contributing to addiction. Reasons for abuse, dependency dynamics, addiction prevention and treatment considerations are explored. Legislation is studied. Issues and treatment regarding addiction and special populations are discussed. Ethical issues include professional competency and responsibility, confidentiality, and the commitment to nondiscrimination. (F,Sp)

**HUSE242 The Family: Addiction/Violence** 3  
**Prerequisite:** None  
**Recommended:** HUSE105 and HUSE112  
 This course provides conceptual frameworks to understand, assess, and effectively intervene/interact in a counseling fashion with the chemically dependent family. Attention is brought to the socioeconomic, cultural, and psychological factors of chemical dependency and family violence. Intervention techniques, the role of law enforcement, legislative bodies, and social services agencies are discussed. (Sp)

**HUSE282 Human Services Practicum I** 4  
**Prerequisite:** Minimum 2.5 in (HUSE105 or SOWK203) and minimum 2.0 in (WRIT121 or WRIT131) and Department Approval  
**Recommended:** Human Services experience  
 This course combines classroom training with beginning field experience (10 hours per week) in a community-based human services agency. Emphasis is on knowledge of the community structure, funding bases, and the internal working of human services organizations. Opportunities in the labor force, certification requirements, and networking are explored. (F)

**HUSE284 Human Services Practicum II** 4  
**Prerequisite:** Minimum 2.5 in HUSE282  
 This course provides classroom training on principles of human services delivery with advanced practical experience (10 hours per week) in a community-based human services agency. Emphasis is on identifying systems and resources to link the systems with the people and how to mobilize the systems and the people. (Sp)

**HUSE293 Human Services Special Topics** .25-4

**Prerequisite:** Determined by Unit Section

A number of topics related to the human service field will be taught in this course. Topics will be of interest to current students, members of the community, paraprofessionals and professionals working in the field. Specific, up-to-date content will vary with each offering. (F,Sp,Su)

**HUSE297 Human Services Independent Study** 1-3

**Prerequisite:** Department Approval

This course includes special research, directed study, or service-learning projects in human services areas, such as gerontology, social work, substance abuse, or related areas. It requires at least 16 hours of independent work for each credit. A learning contract specifying objectives, activities and outcomes is required. (F,Sp)

**HVAC - Heat, Ventilation and Air Conditioning**

**HVAC100 Fundamentals of HVAC** 3

**Prerequisite:** Reading Level 3 and Writing Level 2

This course is an introduction to the mechanical refrigeration cycle and its individual components. Compressors, evaporators, condensers and metering devices as well as their functions are covered in detail. Exercises in psychrometrics and an introduction to system design are also covered. (F,Sp,Su)

**HVAC101 HVAC/R Piping** 2

**Prerequisite:** None

This course is designed to teach students about the common types of pipes used in the HVAC/R industry. Topics will include safety, tools and fasteners, common types of pipe, pipe joints, pipe-fittings, and general guidelines for working with pipe and tubing. Hands-on experience with piping is included. (F,Sp,Su)

**HVAC105 Sheet Metal Fabrication & Installation** 2

**Prerequisite:** Reading Level 3 and Writing Level 2 and (minimum 2.0 in (MATH050 or concurrently) or Math Level 4)

Designed to aid the installer in the skills and techniques for installation of residential heating and cooling systems. Topics include sheet metal layout, identification of sheet metal fittings and general furnace installation procedures. (F,Sp,Su)

**HVAC110 Applied Electricity I** 3

**Prerequisite:** Reading Level 3 and Writing Level 2 and Math Level 3

An introduction to basic electricity (AC and DC) using both theory and applied study methods. Topics will include electrical components, symbols, basic schematic diagrams, Ohm's Law applied to series and parallel circuits and motor types and usages. In conjunction with lab exercises, meters and their proper usage will be covered. (F,Sp,Su)

**HVAC111 Applied Electricity II** 3

**Prerequisite:** Minimum 2.0 in (HVAC100 and HVAC110)

The study of motors with an emphasis on theory, troubleshooting and servicing. Motor controls, control circuits, protection devices and discussion of energy conservation as related to motors will be covered in detail. (F,Sp)

**HVAC120 Heating I** 3

**Prerequisite:** Minimum 2.0 in (HVAC100 and HVAC110)

This course covers basic construction and function of components in residential gas and oil fired furnaces with detail on theory, application, troubleshooting, and servicing standard heating systems. Installation procedures and codes are also covered. Additional equipment studied will include humidifiers, air cleaners and vent dampers. (F,Sp)

**HVAC130 Air Conditioning I** 3

**Prerequisite:** Minimum 2.0 in (HVAC100 and HVAC110)

This course covers the fundamentals and principles of residential air conditioning systems. Students will learn soldering and brazing of tubing, wiring, component testing, evacuation procedures, charging and maintenance of both split systems, as well as small packaged units. (F,Sp)

**HVAC201 Mechanical Code** 4

**Prerequisite:** Minimum 2.0 in (HVAC120 and HVAC130)

A fundamental course designed to acquaint the student with the methods and techniques used in field inspection of mechanical systems. The Michigan Mechanical Code and excerpts from the International Fuel Gas Code and Michigan Residential Code will be discussed. (F,Sp)

**HVAC220 Heating II** 3

**Prerequisite:** Minimum 2.0 in (HVAC111 and HVAC120)

This course covers the fundamentals and principles of electronic ignition systems including troubleshooting and servicing. The major emphasis is placed on high efficiency and condensing furnaces to include sequence of operation, troubleshooting, servicing, and proper installation. (F,Sp)

**HVAC221 Introduction to Hydronics** 3

**Prerequisite:** Minimum 2.0 in HVAC120

Covers hot water and steam residential heating systems, piping and all accessories, safety controls, expansion tanks, zone valves, installation procedures and codes. Students perform testing, troubleshooting, adjusting and servicing of components to insure maximum efficiency. (F,Sp)

**HVAC230 Air Conditioning II** 3

**Prerequisite:** Minimum 2.0 in (HVAC111 and HVAC130)

This course covers advanced air conditioning, light commercial equipment, water cooled units, cooling towers, and the wiring of both control and line voltage circuitry. The latest in test equipment and meters will aid the student in becoming proficient in servicing and maintaining commercial equipment. (F,Sp)

**HVAC231 Heat Pump** 3

**Prerequisite:** Minimum 2.0 in HVAC230

This course deals entirely with heat pumps (air-to-air, water-to-air) and their installation, servicing, proper application of heat pump components, and extensive wiring schematics. (F)

**HVAC240 Refrigeration I** 3

**Prerequisite:** Minimum 2.0 in HVAC230 or concurrently

This course includes domestic refrigeration as applied to refrigerators, freezers and de-humidifiers. Course content includes applications, operation and servicing of sealed systems, electrical and cabinet styles. (F)

**HVAC241 Refrigeration II** 3

**Prerequisite:** Minimum 2.0 in HVAC240

This course provides instruction in light commercial refrigeration to include low and medium temperature applications as applied to ice machines, walk-ins, reach-ins, and display cases. (Sp)

**HVAC250 Pneumatic Control** 3

**Prerequisite:** Minimum 2.0 in HVAC230

Basic concepts of pneumatic controls and their calibration will be covered. Procedures taught will be based on industry standards for HVAC equipment in commercial structures. (Sp)

**HVAC251 Fundamentals of Direct Digital Controls** 3  
**Prerequisite:** Minimum 2.0 in HVAC230  
**Recommended:** Basic Windows computer skills  
 Basic fundamentals and principles of direct digital controls will be covered through demonstrations of computer basics, control strategies for computer based energy management systems, and installation components according to industry standards. (F)

**HVAC280 EPA 608 Certification Review** 1  
**Prerequisite:** None  
**Recommended:** HVAC130 or HVAC field experience  
 This course prepares students for the EPA Section 608 Certification test which is required to work on appliances containing CFC, HCFC or HFC refrigerants. This course will not certify technicians in EPA Section 609 - Automotive Air Conditioning. Students who successfully complete the course will take the proctored EPA Section 608 Certification Test. (F,Sp)

### IDMS - Diagnostic Medical Sonography

**IDMS169 Introduction to Sonographic Scanning** 1  
**Prerequisite:** Admission to Diagnostic Medical Sonography Program and Reading Level 5 and Writing Level 6  
**Co-requisite Course(s):** IDMS200  
 Sonography students are introduced to scanning and sonographic positioning as well as imaging techniques. Normal anatomy of the abdomen including liver, biliary tree, kidneys, spleen, and pancreas will be explored. (Su)

**IDMS200 Sonographic Introduction** 2  
**Prerequisite:** Admission to Diagnostic Medical Sonography Program  
 This course is an introduction to sonography including equipment history, criteria, limitations of ultrasound, and sonographer ethics. General information is provided regarding patient preparation, history/clinical correlation, and basic nursing care specific to ultrasound. Strong emphasis is placed on terminology and abbreviations most commonly used with ultrasound. (Su)

**IDMS201 General Sonography I: Abdomen** 4  
**Prerequisite:** Minimum 2.5 in (IDMS169 and IDMS200)  
**Co-requisite Course(s):** IDMS202 and IDMS234 and IDMS270 and IDMS280  
 This course provides the student with cross-sectional anatomy and pathology as it relates to sonographic scanning of the abdomen, abdominal vessels, thyroid, prostate, scrotum, breast, and neurosonology of the neonate. (F)

**IDMS202 OB/GYN Sonography I** 4  
**Prerequisite:** Minimum 2.5 in (IDMS169 and IDMS200)  
**Co-requisite Course(s):** IDMS201 and IDMS234 and IDMS270 and IDMS280  
 This course provides the student with cross-sectional anatomy and pathology as it relates to gynecological and obstetrical sonography. Fetal anatomy and appearance will be presented. (F)

**IDMS234 Sonographic Physics** 2  
**Prerequisite:** Minimum 2.5 in (IDMS169 and IDMS200)  
**Co-requisite Course(s):** IDMS201 and IDMS202 and IDMS270 and IDMS280  
 The student will study the fundamental principles of acoustical physics, how sound is produced and manipulated, and how it reacts in various mediums. (F)

**IDMS245 Sonographic Instrumentation** 2  
**Prerequisite:** Minimum 2.5 in IDMS234  
**Co-requisite Course(s):** IDMS265 and IDMS266 and IDMS271 and IDMS281  
 The student will be introduced to the mechanics of A-Mode, M-Mode, Doppler, and Real-time ultrasound equipment. Accessory equipment such as the camera, transducer, and cathode ray tube will be presented. Methods of quality assurance will also be presented. (Sp)

**IDMS265 General Sonography II** 4  
**Prerequisite:** Minimum 2.5 in IDMS201  
**Co-requisite Course(s):** IDMS245 and IDMS266 and IDMS271 and IDMS281  
 The student will be presented with the identification of and interpretation of anatomy and pathology on sonographic exams as it relates to the abdomen, venous system, and small parts. (Sp)

**IDMS266 OB/GYN Sonography II** 4  
**Prerequisite:** Minimum 2.5 in IDMS202  
**Co-requisite Course(s):** IDMS245 and IDMS265 and IDMS271 and IDMS281  
 The student will be presented with the identification of and interpretation of anatomy and pathology on sonographic exams as it relates to the obstetric and gynecologic patient. (Sp)

**IDMS270 Sonographic Positioning I** 1  
**Prerequisite:** Minimum 2.5 in (IDMS169 and IDMS200)  
**Co-requisite Course(s):** IDMS201 and IDMS202 and IDMS234 and IDMS280

Sonography students continue to learn scanning and sonographic positioning as well as imaging techniques. Normal anatomy of the abdomen including liver, biliary tree, kidneys, spleen, and pancreas will be explored. The great vessels will be introduced including the aorta, celiac axis, superior mesenteric artery, inferior vena cava and related arteries. (F)

**IDMS271 Sonographic Positioning II** 1  
**Prerequisite:** Minimum 2.5 in IDMS270  
**Co-requisite Course(s):** IDMS245 and IDMS265 and IDMS266 and IDMS281

Sonography students continue to practice sonographic positioning and scanning techniques. Normal and abnormal anatomy of the abdomen including liver, biliary tree, aorta, kidney, spleen, transabdominal pelvis, thyroid, musculoskeletal and gravid uterus will be explored. (Sp)

**IDMS280 Clinical Experience I** 6  
**Prerequisite:** Minimum 2.5 in (IDMS169 and IDMS200)  
**Co-requisite Course(s):** IDMS201 and IDMS202 and IDMS234 and IDMS270

First course in a three-semester sequence of clinical application in diagnostic medical sonography. Clinical experience is provided under the direct supervision of an ARDMS Registered Sonographer. Clinical competencies will be given corresponding to completed didactic work. Performance standards are used to evaluate the student's progress. (F)

**IDMS281 Clinical Experience II** 6  
**Prerequisite:** Minimum 2.5 in IDMS280  
**Co-requisite Course(s):** IDMS245 and IDMS265 and IDMS266 and IDMS271

Building on material presented in IDMS280, this is the second course in a three-semester sequence in diagnostic medical sonography. Clinical experience is provided under the direct supervision of an ARDMS Registered Sonographer. Clinical competencies will be given corresponding to completed didactic work. Performance standards are used to evaluate the student's progress. (Sp)

**IDMS282 Clinical Experience III** 8

**Prerequisite:** Minimum 2.5 in (IDMS234 and IDMS245 and IDMS265 and IDMS266)

Based on material presented in IDMS281, this is the last course in a three-semester sequence of clinical application in diagnostic medical sonography. Clinical experience is provided under the direct supervision of an ARDMS Registered Sonographer. Clinical competencies will be given corresponding to completed didactic work. Performance standards are used to evaluate the student's progress. (Su)

**IDMS285 Sonographic Registry Preparation** 3

**Prerequisite:** (Minimum 2.5 in IDMS245 and IDMS265 and IDMS266 and IDMS281) or Approved DMS Graduate

Students will be presented with advanced teaching in cross-sectional anatomy and interpretation of pathology on sonographic exams as it relates to the abdomen, small parts, obstetrics, gynecology, sonographic physics, and limited vascular systems. This course is intended to provide final preparation for the American Registry of Diagnostic Medical Sonographers (ARDMS) board registry examination. (Su)

**IDMS295 DMS Special Topics** .25-8

**Prerequisite:** Determined by Unit Section

This course offers students the opportunity to learn new diagnostic medical sonography career skills and knowledge. Specific up-to-date content will vary with each topic presented and will be related to diagnostic medical sonography careers. (F,Sp,Su)

**INSU - Insurance****INSU265 Principles Risk and Insurance** 3

**Prerequisite:** None

At the completion of this course, the student will have a working knowledge of the theory of risk, insurance terminology, legal insurance contracts, and use of risk management. (Sp)

**INTR - Interior Design****INTR100 Interior Design Fundamentals** 3

**Prerequisite:** Reading Level 3 and Writing Level 2

**Recommended:** INTR105 and Math Level 3

Practical survey course for residential interior design and decoration. Topics include planning, window treatments and estimating, selecting and arrangement of furnishings, scheduling color schemes, and identification of furniture styles as they relate to the selection and coordination of home furnishings and accessories. (F,Sp)

**INTR101 Special Topics in Interior Design** .25-8

**Prerequisite:** Determined by Unit Section

The Interior Design Special Topic Series offers students the opportunity to acquire new skills and knowledge. A variety of topics related to Interior Design prepares students, workers and designers to learn up-to-date content for the twenty-first century. Topics may vary with each semester and section offering. (F,Sp,Su)

**INTR105 Introduction to Design Drawing** 3

**Prerequisite:** Reading Level 3 and Writing Level 2

This course is an introduction to drawing for designers, with an emphasis on preparing drawings to communicate design concepts. Drawing tools, equipment and mixed colored media are used to create two and three-dimensional sketches, projective drawings, and technical drawings. Computer aided design drawing applications and reproduction methods are included. (F,Sp,Su)

**INTR110 Applied Design/Color Theory** 3

**Prerequisite:** Reading Level 3 and Writing Level 2

**Recommended:** INTR105

A course in basic design theory. Topics include two- and three-dimensional design fundamentals, elements and principles of design, color, creativity and problem solving as they relate to interior design. Various media will be applied to interior design projects. (F,Sp)

**INTR151 Beginning Kitchen and Bath Design** 4

**Prerequisite:** Minimum 2.0 in ARCH100 or Drafting Placement Test 80%

**Recommended:** (CITF103 or CITF110 or METD015 (previously CADD105)) and INTR105

This course is a beginning study of kitchen planning, design, and remodeling through computer software applications. Lecture and lab components are included. (F,Sp)

**INTR170 Interior Design Principles** 4

**Prerequisite:** (Minimum 2.0 in ARCH100 or Drafting Placement Test 80%) and Reading Level 5 and Writing Level 6

**Recommended:** INTR105

This course is an overview of the basic knowledge required for the education of the professional interior designer. Human needs are the focal point of solving problems of space planning and furniture arrangement. Students will use the elements and principles of design to evaluate function and aesthetics of interior spaces. (Sp)

**INTR185 Introduction to Textiles** 3

**Prerequisite:** Reading Level 5 and Writing Level 6

This course examines the basic fundamentals of textiles characteristics and identification; fibers, yarns, fabric construction, finishes and regulations, with emphasis on applications, performance and care in the apparel, interiors and auto industry. (F,Sp)

**INTR190 Interior/Materials/Equipment** 3

**Prerequisite:** Reading Level 3 and Writing Level 2

**Recommended:** Math Level 3

Study of nonstructural interior finishes and materials, their methods of application and installation and their effect on the environment. Students will study kitchens, baths, cabinets, ceilings, walls, floors, and paint. (F)

**INTR201 Cultural Diversity in Housing** 3

**Prerequisite:** Reading Level 5 and Writing Level 6

**Recommended:** WRIT121 or equivalent

This multidisciplinary course is the study of how culturally diverse ideas, issues, values, and institutions in global societies have shaped the built environment and the political, social and economic impact this has on the individual and the group. (Sp)

**INTR230 World Decorative Arts** 3

**Prerequisite:** Reading Level 5 and Writing Level 6

**Recommended:** WRIT121 or equivalent

This course is a survey of the decorative arts of the world including furniture, interior architecture, textiles, and accessories. Students will study designers, styles, materials and techniques and their influence upon the political, geographical, economic and religious cultures of Africa, Asia, Europe and the Americas. Period is from antiquity to seventeenth century. (F)

**INTR231 Period Interiors** 3

**Prerequisite:** Reading Level 5 and Writing Level 6

**Recommended:** WRIT121 or equivalent

This course is a study of the decorative art periods including furniture, interior architecture, textiles, and accessories from the Italian Renaissance to the nineteenth century western industrial revolution. (Sp)



- INTR232 Twentieth Century Interiors** 3  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** WRIT121 or equivalent  
 This course is a selective survey of interior design covering the history and philosophy of modern and international styles from the turn of the century to the 1990s. (Sp)
- INTR251 Advanced Kitchen and Bath Design** 3  
**Prerequisite:** Minimum 2.0 in INTR151  
**Recommended:** ARCH114 (previously ARCH231) or equivalent AutoCAD experience  
 Students will create advanced kitchen and bath design projects that solve problems of storage capacity, accessibility, functionality, ventilation, lighting, safety, kitchen and bath mechanical systems. Topics will include application of universal design, planning principles, esthetics, as well as technological aspects of appliances, fixtures, and other equipment. (F)
- INTR256 Interior Design Professional Practice** 3  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** (MATH117 or equivalent) and (WRIT121 or equivalent)  
 This course is an in-depth study of the business and professional practices of interior designers. Students prepare written communications, contract forms, and schedules. The study of marketing, ethics, and project management are included. (F)
- INTR261 Interior Design Project Laboratory** 1-4  
**Prerequisite:** Department Approval  
**Recommended:** INTR251 or ARCH221 or ARCH114 (previously ARCH231) or equivalent  
 This course is a directed study of special projects not incorporated in regular course offerings. (F)
- INTR263 Interior Design Internship** 2-4  
**Prerequisite:** Department Approval  
**Recommended:** Minimum 2.0 in INTR256 and GPA 2.0 and 20 credits completed in INTR  
 This course is a work site experience. Students will gain pre-career experience by working in a studio environment under the supervision of a professional. Regularly scheduled progress reports will be given and discussed with supervising faculty member. (Su)
- INTR265 Residential Interior Design** 5  
**Prerequisite:** Minimum 2.0 in (ARCH110 (previously ARCH121) and INTR151 and INTR170)  
**Recommended:** BIOL120 or equivalent  
 This course is an integrated design studio with components of interior space planning, interior lighting and construction systems, and residential interior design with computer applications. Students will apply knowledge, skills processes and theories of interior design to residential studio problems. Residential interior design includes programming, universal design, human factors data and specifying interior materials for a sustainable environment. (F)
- INTR270 Interior Design Portfolio** 2  
**Prerequisite:** None  
**Recommended:** ARCH110 (previously ARCH121) and 20 credits completed in INTR or equivalent  
 The portfolio course is an opportunity for students to organize photographs, matte/frame, and/or digitize their visual works. At the completion of the course, the students will have developed a format for a portfolio. (Sp)

- INTR275 Commercial Interior Design** 5  
**Prerequisite:** Minimum 2.0 in (ARCH110 (previously ARCH121) and ARCH114 (previously ARCH231) and INTR170)  
 This course is an integrated design studio with components of three dimensional visualization, commercial specifications and commercial interior design using computer applications. Students will apply knowledge, skills, processes, and theories of interior design to commercial studio problems. Commercial interior design includes programming, schematic design, design development, and contract documents. (Sp)
- INTR280 Interior Design Building Codes** 3  
**Prerequisite:** Reading Level 3 and Writing Level 2  
**Recommended:** ARCH100  
 Explores federal regulations, codes and specifications concerning life-safety issues, barrier free access (Americans with Disabilities Act [ADA]) and universal design requirements relative to non-structural residential and commercial design. Special attention is given to performance, health/safety, and universal design when estimating and preparing specifications for interior materials and products. (Sp)
- INTR293 Kitchen and Bath Design Internship** 2-4  
**Prerequisite:** Department Approval  
**Recommended:** Minimum 2.5 in MATH117 and 20 credits completed in INTR  
 This course is a work site experience. Students will gain pre-career experience by working in a studio environment under the supervision of a professional. Regularly scheduled progress reports will be given and discussed with the supervising faculty member. (Su)

### IRXT - Radiologic Technology

- IRXT100 Introduction to Imaging/Patient Care** 4  
**Prerequisite:** Admission to Radiologic Technology Program  
 This course is a survey of the role of the radiographer in the health care industry, exploring the historical perspective of x-ray, certification, licensure, and continuing education requirements. Principles of basic patient care are covered including: aseptic techniques, infection control, vital signs, medical emergencies, venipuncture, and intravenous medication administration. Clinical observations at a college affiliate site and laboratory activities are included. (F)
- IRXT111 Radiographic Positioning I** 5  
**Prerequisite:** Admission to Radiologic Technology Program  
 Student radiographers are introduced to radiographic positioning of the upper and lower extremity, chest, abdomen, bony thorax, pelvis, and spine. Associated topographic, skeletal, chest, and abdominal anatomy is studied. A laboratory experience is provided to evaluate the student skills in performing each position/projection. (F)
- IRXT112 Radiographic Positioning II** 5  
**Prerequisite:** Minimum 2.5 in IRXT111  
 A continued study of routine radiographic positioning with the addition of fluoroscopic procedures. Included are studies of the skull, G.I. tract, G.U. tract, myelography, and bronchography. In addition, various contrast media are studied. Laboratory experiences are provided to evaluate student skills in performing selected position/projections. (Sp)

<b>IRXT114 Cross-Sectional Anatomy</b>	<b>3</b>
<b>Prerequisite:</b> Minimum 2.5 in IRXT112	
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, CTs, MRIs and radiographs are explored. (F)	
<b>IRXT121 Radiographic Exposure I</b>	<b>3</b>
<b>Prerequisite:</b> Admission to Radiologic Technology Program	
The formation of the radiographic image is the focus of IRXT121. Photographic and geometric variables are related to radiographic factors and their various interactions compared and contrasted. Finally, a study of the history of radiology, basics of radiation formation, and anatomy of the X-ray tube are discussed. (F)	
<b>IRXT122 Radiographic Exposure II</b>	<b>3</b>
<b>Prerequisite:</b> Minimum 2.5 in IRXT121	
Various beam modifying devices are presented and their relation to formation of a radiographic image studied. A study of manual processing and the theory of image formation is included. Dark room procedures and quality control, both radiographic and photographic, will also be explored. (Sp)	
<b>IRXT131 Radiologic Physics</b>	<b>3</b>
<b>Prerequisite:</b> Minimum 2.5 in IRXT122 and (minimum 2.0 in MATH112 or MATH121)	
Basic physical principles are related to the radiologic process. A study of basic electricity and the operation of the x-ray circuit are presented. Finally, advanced topics regarding the formation of radiation, protection of the X-ray tube, and X-ray attenuation are studied. (F)	
<b>IRXT132 Radiobiology and Protection</b>	<b>2</b>
<b>Prerequisite:</b> Minimum 2.5 in IRXT122 and (minimum 2.0 in MATH112 or MATH121)	
This course focuses on the rationale for good radiation hygiene and methods used to protect the patient and technologist. Current theories regarding the physiological effects of ionizing radiation are explored. (Sp)	
<b>IRXT200 Introduction to Radiologic Pathology</b>	<b>2</b>
<b>Prerequisite:</b> None	
Emphasizes how disease processes are diagnosed radiographically and the relationship of the radiographic appearance of the disease to its anatomic, physiologic, and pathologic characteristics. The etiology, treatment, and resolution of each disease is discussed with an attempt to relate more recent advances in these areas. (Sp)	
<b>IRXT202 Clinical Practice I</b>	<b>4</b>
<b>Prerequisite:</b> Minimum 2.5 in IRXT111	
First in a two-semester sequence of clinical application in radiography. The course is programmed with specific performance activities. Credit is arranged for each individual semester with a ratio of one credit hour to four clinical clock hours. The ratio for lecture is consistent with the one-to-one ratio. (Sp)	
<b>IRXT204 Clinical Practice II-S</b>	<b>5</b>
<b>Prerequisite:</b> Minimum 2.5 in IRXT202	
Second course in a two-semester sequence of clinical applications in radiography. The course is programmed with specific performance activities. Credit is arranged for each individual term with a ratio of one credit hour to four clinical clock hours. The ratio for lecture is consistent with the one-to-one ratio. (Su)	

<b>IRXT214 Comprehensive Experience I</b>	<b>6</b>
<b>Prerequisite:</b> Minimum 2.5 in (IRXT204 or IRXT213)	
First in a two-semester sequence of clinical application in radiography. Clinical experience is provided under the direct supervision of an ARRT Registered Technologist. Clinical competencies will be given corresponding to completed didactic work. Performance standards are used to evaluate the student's progress. (F)	
<b>IRXT215 Comprehensive Experience II</b>	<b>6</b>
<b>Prerequisite:</b> Minimum 2.5 in IRXT214	
Second in a two-semester sequence of clinical application in radiography. Clinical experience is provided under the direct supervision of an ARRT Registered Technologist. Clinical competencies will be given corresponding to completed didactic work. Performance standards are used to evaluate the student's progress. (Sp)	
<b>IRXT295 Radiologic Technology Special Topics</b>	<b>.25-8</b>
<b>Prerequisite:</b> Determined by Unit Section	
This course offers students the opportunity to learn new radiologic technology career skills and knowledge. Specific up-to-date content will vary with each topic presented and will be related to radiologic technology careers. (F,Sp,Su)	

### ISCI - Integrated Science

<b>ISCI121 Integrated Science for Education I</b>	<b>4</b>
<b>Prerequisite:</b> Reading Level 5 and Writing Level 6 and Math Level 4	
The first of two general science courses focusing on the fundamental behavior of matter and energy using a historical and environmental context. Science processes, methods, and reasoning skills are emphasized throughout. Recommended for education majors. (F,Sp)	
<b>ISCI122 Integrated Science for Education II</b>	<b>4</b>
<b>Prerequisite:</b> Minimum 2.0 in ISCI121 and Reading Level 5 and Writing Level 6 and Math Level 4	
The second of two general science courses focusing on the biological and ecological nature of our universe, using a historical and integrative approach. Science processes, methods, and reasoning skills are emphasized throughout. Recommended for education majors. (F,Sp)	
<b>ISCI131 Integrated Science - Physical</b>	<b>4</b>
<b>Prerequisite:</b> Reading Level 5 and Writing Level 6 and Math Level 4	
A general education course designed to provide students with a basic understanding of the methods and applications of science. Topics include basic chemistry, thermodynamics, the hydrologic cycle, earth science, climate, and weather. Critical thinking and problem-solving skills are applied to environmental issues. Laboratory activities illustrate and amplify lecture topics. (F,Sp)	

### JAPN - Japanese

<b>JAPN115 Conversational Japanese I</b>	<b>3</b>
<b>Prerequisite:</b> None	
First course in conversational Japanese. Designed for people with little or no knowledge of Japanese who wish to acquire conversational skills. Students learn correct pronunciation, basic sentence structures, and practical vocabulary for everyday use and traveling. Selected features of Japanese culture and everyday life in Japan will be introduced. (F,Sp,Su)	

**JAPN116 Conversational Japanese II** 3**Prerequisite:** None**Recommended:** JAPN115 or equivalent

Second course in conversational Japanese. Designed for people with some prior knowledge of Japanese who wish to improve their conversational skills. Students learn practical vocabulary and essential grammar to converse in Japanese. Selected features of Japanese culture and everyday life in Japan will be introduced. (F,Sp)

**JAPN121 Elementary Japanese I** 4**Prerequisite:** Reading Level 5

First course of a two-semester sequence in elementary Japanese. Students gain basic knowledge of communication and skills through speaking, reading, writing, and listening comprehension. Everyday life and culture of Japan are discussed. Hiragana and Katakana syllabaries and 40 Kanji are introduced. A grade of 2.0 or higher fulfills the Communication Core requirement. (F,Sp)

**JAPN122 Elementary Japanese II** 4**Prerequisite:** Minimum 1.5 in JAPN121

Second course of a two-semester sequence in elementary Japanese. Students receive more practice in Japanese for practical communication. Develops speaking, reading, writing, and listening skills. Previously acquired knowledge and skills are refined and ability to communicate in Japanese is increased. Additional 100 Kanji will be introduced. Class is taught mostly in Japanese. (Sp)

**JAPN201 Intermediate Japanese I** 4**Prerequisite:** Minimum 1.5 in JAPN122

First course of a two-semester sequence in intermediate Japanese. Includes introduction of more advanced grammar, vocabulary building, composition, group discussions, and more information on Japanese culture and everyday life. Additional 150 Kanji will be introduced. (F)

**JAPN202 Intermediate Japanese II** 4**Prerequisite:** Minimum 1.5 in JAPN201

Continuation of JAPN201. Includes more advanced grammar, intensive vocabulary building, writing composition, reading contemporary materials, discussions, and student presentations of Japanese language or culture. Additional 150 Kanji will be introduced. Natural and practical communication will be emphasized. Class is taught in Japanese. (Sp)

**JRNL - Journalism****JRNL151 Newswriting and Reporting** 3**Prerequisite:** Minimum 2.0 in (WRIT121 or WRIT131)**Recommended:** Computer and/or keyboarding experience

Introduction to, and practice in, writing news stories. Students learn news terminology, style, objectivity, attribution, accuracy, and copy-editing skills. Basic news gathering and reporting tactics are presented and practiced. (F)

**JRNL251 News Design and Layout** 3**Prerequisite:** Minimum 2.0 in JRNL151**Recommended:** Computer and/or keyboarding experience

This course will equip students to do basic electronic design and layout for newspapers, newsletters, and brochures, among other print media. The news value of information will be the primary criterion for design choices, although fundamental aesthetics also will be covered. (Sp)

**JRNL254 Editorial Writing** 3**Prerequisite:** Minimum 2.0 in (JRNL151 or WRIT121 or WRIT131)**Recommended:** Computer and/or keyboarding experience

A course in how to write effective editorials. Students analyze content, structure and style of editorial models, learn methods of finding subjects, learn methods of research, and write editorials and articles on important issues. (Sp)

**LABR - Labor Relations****LABR200 Introduction to Labor Relations** 3**Prerequisite:** Reading Level 4

This course surveys both historical and legal frameworks of the labor movement. Major labor laws, causes and goals of the labor movement, and union structure and behavior will be discussed. Students will explore both labor and management approaches to solving employment disputes. (F,Sp)

**LABR201 Labor Negotiation and Contract Admin** 3**Prerequisite:** Reading Level 4**Recommended:** LABR200 or LABR203 or related work experience

This course covers key aspects of negotiating/applying collective bargaining agreements including: labor negotiations; contract administration; and grievance processing and arbitration. This hands-on course conveys basic knowledge, legal framework, and practical skills pertaining to negotiations and grievance adjudication. (F)

**LABR203 Labor Law** 3**Prerequisite:** Reading Level 5**Recommended:** LABR200 or related work experience

An in-depth study of traditional labor law including NLRB law, court decisions, and historical origins which impact union organizing, representation elections, unfair labor practices, bargaining, strikes, and enforcement of labor contracts. (Sp)

**LABR204 Employment Law for Managers** 3**Prerequisite:** Reading Level 5

This course provides an introduction and overview to the principles and application of laws affecting the workplace, not including traditional labor relations law. Areas of law covered include discrimination, wage-hour, unemployment benefits, personnel records, and common law issues relating to discharge and other matters. (F,Sp)

**LAND - Landscape****LAND100 Introduction to Landscape Drafting** 3**Prerequisite:** None

This course covers the use of drafting equipment with an emphasis on lettering, line convention, and title blocks. The students will develop a basic format for design construction drawings. The course provides essential drafting skills for beginning the Landscape Program. (F,Sp,Su)

**LAND101 Landscape Special Topics** .25**Prerequisite:** None

The Landscape Special Topics series will feature topics related to the green industries. The lectures will allow students to sample and explore a wide variety of topics related to plant materials, landscape designs and construction principles. Topics will range from water gardens and bonsais to rose gardens and herbs. (F,Sp)

- LAND120 Basics of Landscape Contracting** 3  
**Prerequisite:** None  
 This course will explore the field of landscape contracting and its relationship to landscape architecture and management. Landscape contractors and their role in plan evaluation, landscape material selection and their installation and construction features will be fully analyzed. The role of the individual in the design/build industry will be highlighted. (F)
- LAND130 Interior Landscaping** 3  
**Prerequisite:** None  
 This course includes the identification, culture, placement, and use of foliage and flowering plants in the office, mall, restaurant or home. Basic principles of landscaping are covered to include soil media, watering, light requirements, fertilizer, and insect and disease control. Management in relation to the plant's placement and use within the interior landscape is also discussed. (Sp)
- LAND132 Residential Landscaping** 2  
**Prerequisite:** None  
 This course highlights a basic design process approach for developing a home landscape. The development of a basic design focusing on your own home including placement of plant material, decks, patios, water features, and other landscape elements will be demonstrated. A course for the new homeowner, homeowner renovating his or her landscape, residential landscaper, or nursery person. (F,Sp,Su)
- LAND133 Landscape Maintenance** 3  
**Prerequisite:** None  
 This course will provide a basic understanding of landscape maintenance problems and solutions. Students will develop records and schedules for pest control as well as tree, shrub, lawn, and flower maintenance. Plant selection, installation, pruning, and fertilization will be covered. (F,Sp,Su)
- LAND140 Evergreen and Deciduous Trees** 3  
**Prerequisite:** None  
 This course emphasizes identification of both common and uncommon deciduous trees, shrubs, evergreens, vines, and ground covers used in the landscape trade. Weekly lab walks facilitate development of field identification skills based on form, foliage, bark, bud, flower, and fruit characteristics. Landscape use and basic culture of individual plants are also covered. (F,Su)
- LAND141 Flowering Trees, Shrubs, and Vines** 3  
**Prerequisite:** None  
 This course explores spring flowering trees, shrubs, broadleaf evergreens, and ground covers. Identification in the field is emphasized during weekly lab walks. Design characteristics of individual plants including size, habit, flowers, fruit, bark, foliage, and buds are discussed as well as basic cultural requirements. (Sp,Su)
- LAND142 Perennial and Annual Flowering Plants** 3  
**Prerequisite:** None  
 This course covers the identification and basic culture of approximately 170 perennial and annual flowering and budding plants. Specific features of each plant will be discussed in relation to their proper landscape use. Herbs, grasses, and rock and water garden plants will also be highlighted. (Sp,Su)
- LAND145 Field Experiences in Landscape Arch** 3  
**Prerequisite:** None  
 This course will introduce the student to various aspects of the landscape architecture profession. Different aspects of the profession will be presented through discussion, videos, slides, field trips, and guest speakers. Topics will include urban planning, zoo design, ecological planning, landscape construction, recreation, and park design. (F,Sp)
- LAND150 Principles of Landscape Architecture** 3  
**Prerequisite:** None  
 Students will explore the broad scale philosophical, historical, and technical aspects of landscape architecture. Basic problem-solving techniques and design theory are introduced along with implementation of the design process. (F,Sp,Su)
- LAND152 Landscape Graphics Communication-Begin** 3  
**Prerequisite:** Minimum 2.0 in LAND150 or concurrently  
 This course explores basic illustration techniques relative to the field of landscape architecture. Both the formal and informal applications of mechanical and freehand drafting communication are emphasized to include reproduction printing methods. (F,Sp)
- LAND153 Landscape Graphics Communication-Adv** 3  
**Prerequisite:** Minimum 1.0 in LAND152  
 This course acquaints the student with visual presentation techniques used in landscape architecture. Plan, section, and three-dimensional graphics are explored using a range of media. The students will develop sketching and mechanical-drafting techniques for the preparation of professional graphic presentations. (Sp)
- LAND160 Planting Design I** 3  
**Prerequisite:** Minimum 1.0 in (LAND140 and LAND150) or concurrently  
 This course provides an overview of the planting design principles from site analysis to construction documents. Planting design principles are emphasized as well as practical aspects of plant selection and design implementation in a range of design situations. Contemporary issues concerning today's design and construction industries are also discussed. (F)
- LAND161 Planting Design II** 3  
**Prerequisite:** Minimum 1.0 in LAND160  
 This course applies the planting design skills gained in LAND160 to a broad range of sites and issues typically encountered in today's landscape design and construction industries. Topics covered include functional uses of plants, native plant material, and planting design in the urban environment. (Sp)
- LAND163 Designing Ornamental Gardens** 3  
**Prerequisite:** Minimum 1.0 in LAND141 or concurrently  
 This course is a practical approach to designing the herbaceous garden. Annuals, perennials, herbs, and ornamental grasses are analyzed to create a design that will be in harmony with its environment. Color, height, texture, form, and fragrance are some of the plant's characteristics which will be discussed. (Sp)
- LAND164 Site Design** 3  
**Prerequisite:** Minimum 2.0 in LAND150  
 This course emphasizes use of the design process to solve a variety of urban and non-urban site planning problems. Project design solutions require graphic delineation stressing plan view presentations. A variety of drawing scales, graphic materials, and techniques will be explored. (Sp)

**LAND170 Site Grading I** 3  
**Prerequisite:** Minimum 2.0 in LAND150  
 This course covers basic through advanced principles, methods, and procedures for grading a site. Use of contour lines, land form interpretation, and earthwork computation are studied and applied to problem solving for both typical and special requirement sites. (F)

**LAND171 Site Grading II** 3  
**Prerequisite:** Minimum 2.0 in LAND170  
 This is an advanced site-grading course that builds on the skills gained in LAND170. This Michigan Soil Erosion Control Act is emphasized with respect to the requirements related to circulation systems and recreational and utility facilities. (Sp)

**LAND172 Site Layout** 3  
**Prerequisite:** Minimum 2.0 in LAND171 or concurrently  
 This course covers plan dimensioning and layout techniques for vehicle and pedestrian circulation systems, building locations, utilities, and sporting and recreational facilities. Professional graphic techniques are emphasized. (Sp)

**LAND175 Special Topics in Landscape Architecture** .25-8  
**Prerequisite:** Determined by Unit Section  
 This course offers students the opportunity to learn new or advanced skills in Landscape Architecture Technology and other related topics. Specific content may vary with each offering and will be related to the Landscape Architecture Technology Program and profession. (F,Sp,Su)

**LAND180 Landscape Ecology** 3  
**Prerequisite:** None  
 This course is for the professional as well as the interested individual covering the relatively new field of landscape environments. Develop a basic understanding of landscape communities, how they developed, and how they function. Plant communities, native species, natural design, and environmental impact are some of the topics covered. (F)

**LAND181 Landscape Restoration and Management** 3  
**Prerequisite:** None  
**Recommended:** LAND180  
 This course will cover the detailed steps necessary to complete a total restoration of a damaged ecosystem. Specific system designs dealing with wetlands and prairies in particular will be highlighted. Specific native plants, animals, and insects will be discussed. Field experiences and native plant identification are a critical part of this course. (Sp)

**LAND182 Wetland Delineation/Evaluation** 2  
**Prerequisite:** None  
 This course will explore the basic elements of wetland identification. Wetland indicator vegetation, hydric soils, and wetland hydrology will be covered. The U.S. Army Corps. of Engineers Wetland Delineation Manual will be used as the guideline for this class. Certification credits can be secured by taking this course. (Sp)

**LAND183 Planned Wetlands Evaluation/Restoration** 2  
**Prerequisite:** None  
 This course will discuss goals which are desirable for designing planned wetlands, constructed, restored or enhanced with specific targeted functions in mind. The class will focus on assessment of wetland functions during the design process and tools available to accomplish this. Wetland design, restoration, evaluation, and management will also be discussed. (Sp)

**LAND184 Natural Landscape Design** 3  
**Prerequisite:** Minimum 2.0 in LAND100  
 This course provides an overview of the major natural landscape ecosystems. The design process is applied to woodland, wetland, and prairie design systems. The use of native and exotic plant material is presented in the natural design process. Landscape designs are created for a variety of natural settings. (F,Sp)

**LAND220 Wetland Restoration** .5  
**Prerequisite:** None  
 This course will present current information available from the MDNR, EPA, and Army Corp of Engineers as it relates to wetland regulations and policy. Wetland delineation, mitigation, design, construction, and planting will be highlighted. Restoration enhancement and creation of wetlands will be outlined and developed. (F)

**LAND222 Landscape Construction Techniques-Begin** 3  
**Prerequisite:** None  
 This course will deal with the basic concepts needed to operate as a landscape contractor in the design/build industry. The fundamentals of landscape design evaluation, development of materials lists, and cost takeoffs will be demonstrated. Basic site analysis, site survey, drainage and grading techniques will be demonstrated. (F)

**LAND225 Landscape Cost Estimation** 3  
**Prerequisite:** None  
 This course is an introduction to the study of landscape contracting and the cost estimating process. The class covers the project management process and the costing factors associated with it. The areas of material costs, equipment cost, labor costs, and related management charges will be evaluated. The preparation of bids and the bidding process will be highlighted. (F,Sp)

**LAND232 Professional Residential Landscape Dsgn** 3  
**Prerequisite:** Minimum 2.0 in (LAND100 or ARCH101 or ARCH210)  
 This course is designed for the individual interested in residential and small commercial design projects on a professional scale. Several design problems will be presented and detailed projects will be developed. (F,Sp)

**LAND233 Grounds Management** 3  
**Prerequisite:** None  
 The student will evaluate a landscape design and/or specific site plan with total management of the site in mind. Seasonal management such as pruning, transplanting, pesticide applications and fertilization as well as cost evaluations will be based on commercial and office sites. This course is for the professional grounds manager. (F,Sp)

**LAND242 Ecological Land Planning** 3  
**Prerequisite:** None  
 This course will introduce the student to the land planning process. The ecological method of land planning will be emphasized with projects demonstrated. Field trips to planning meetings and project sites will be an integral part of this course. (Sp)

**LAND250 Landscape Construction Methods** 3  
**Prerequisite:** Minimum 2.0 in LAND150  
 This course examines the properties and uses of concrete, asphalt, masonry, wood, and other landscape construction materials. Basic design and installation methods of landscape structures are emphasized in addition to the introduction of professional construction drafting techniques. (F)

**LAND252 Landscape Construction Details** 3  
**Prerequisite:** Minimum 2.0 in LAND250  
 Focuses on graphic techniques for drawing construction details and coordination of details with site plan layout. Studies detailing utilities, irrigation systems, circulation systems, recreational facilities, and various light construction features. Design-build procedures are stressed, including material tabulation and cost estimating. (Sp)

**LAND276 Landscape Documents and Specifications** 2  
**Prerequisite:** Minimum 2.0 in LAND171  
 This course explores the relationship and principles between specifications and working drawings. The cost of projects as well as bid preparations will be highlighted. The student will prepare bids, write specifications, and participate in a class bid opening. (F)

**LAND281 CAD Basics in Landscape Design** 1  
**Prerequisite:** None  
 This basic introduction to computer-based landscape design software packages will include basic computer concepts related to landscape drafting and design principles. Hands-on computer exercises will feature landscape modules of site design and selection. (F,Sp)

**LAND282 Computer Drafting/Design Landscape Arch** 3  
**Prerequisite:** None  
 This course assumes no previous computer experience. A beginning class for the individual interested in computers and what they can do for you in landscape design, maintenance, construction, plant selection, land survey, and cost estimating. AutoCAD will be surveyed and utilized for the computer-aided drafting and design portion of this course. (F,Sp,Su)

**LAND283 Beginning LANDCADD** 3  
**Prerequisite:** Minimum 2.0 in LAND282 within 1 year  
 This course assumes basic AutoCAD experience and covers the Site Design LANDCADD package. Site planning and the related modules in site analysis, coordinate geometry, planting design, plant selection, and construction details will be demonstrated and hands-on exercises will be completed. A 3-D landscape design project will also be completed and plotted. (F,Sp)

**LAND284 Advanced LANDCADD** 3  
**Prerequisite:** Minimum 2.0 in LAND283 within 1 year  
 This course continues the use of LANDCADD modules and project development. The student will complete detailed drawings utilizing the site planning package. 3-D customization will also be covered including solid modeling, macro commands, line type creation, and customized symbol library. This is an advanced LANDCADD class. (Sp)

**LAND285 Computer Landscape Animation** 3  
**Prerequisite:** Minimum 2.0 in LAND282 within 1 year  
 This course will familiarize the student with the animation aspects of computer design and presentation. The student will learn to produce an animation project using the latest computer technology. Students will also become familiar with the integration of video and animation in various applications. (Sp)

**LAND286 LANDCADD: Photo Imaging** 3  
**Prerequisite:** Minimum 2.0 in LAND282 within 1 year  
 This computer course will cover how to use photo-imagery and animation in a landscape design situation by way of lecture, video, and computer usage. Computer painting as well as imaging will be demonstrated. Various software will be utilized. (Sp)

**LAND289 Landscape Arch Computer Design/Studio** 3  
**Prerequisite:** Minimum 2.0 in LAND282 within 1 year  
 This course involves the use of computer animation presentation software in the three-dimensional arena. Various 3-D presentation softwares will be utilized to create graphic animations and presentations. (Sp)

**LAND295 Landscape Project Lab** 1-4  
**Prerequisite:** Department Approval  
 This project lab is designed for students who wish to pursue a specialty area in landscape architecture beyond that which is offered in our curriculum. Inquiry through research and design of landscapes is required. (F,Sp,Su)

**LBST - Liberal Studies Special Topics**

**LBST290 Seminar Special Topics** 1-4  
**Prerequisite:** Determined by Unit Section  
 This course provides students the opportunity to acquire knowledge and skills in various Liberal Arts topics. Topics may include a Study Abroad experience in a particular discipline, multidisciplinary or honors seminars, or subjects of general interest to the community and may vary with each semester and section offering. (F,Sp,Su)

**LEGL - Legal Assistant/Paralegal**

**LEGL115 Paralegal Career/Ethics** 2  
**Prerequisite:** Reading Level 5 and Writing Level 6  
 Introduction to the paralegal's role in the legal system, including essential skills used in the litigation process and law practice. Introduces student to legal terminology, legal analysis, procedural, and substantive law. Surveys paralegal employment and regulation. 2.0 minimum required to continue program. (F,Sp,Su)

**LEGL120 Legal Research I** 3  
**Prerequisite:** Minimum 2.0 in (LEGL115 and LEGL215)  
 Introduces research procedures and resources for finding federal and Michigan law, using digests, encyclopedias, reporters, statutes, court rules, treatises, administrative publications, citators, etc. Students complete research assignments utilizing the publications, and the assignments must be completed using the Michigan Uniform System of Citation. Some classes may be at off-campus libraries. (F,Sp)

**LEGL121 Legal Writing I** 3  
**Prerequisite:** Minimum 2.0 in (WRIT122 and LEGL115) and (minimum 1.0 in LEGL120 or concurrently)  
**Recommended:** LEGL215  
 Students will learn to analyze court opinions and apply them to particular fact situations. This skill will then be used to write summaries of court opinions and documents such as: legal memoranda and appellate briefs. Learning methods include reading assignments, class discussion, lecture, and writing assignments of increasing difficulty. (F,Sp)

**LEGL150 Legal Issues: Starting a Small Business** 2  
**Prerequisite:** Reading Level 5 and Writing Level 4  
 This course will introduce the student to legal aspects of starting and operating a small business. Topics will include selecting the appropriate legal structure for setting up a business, complying with employment law, protecting intellectual property, avoiding legal disputes, and other legal aspects of purchasing and operating a business. (F,Sp)

<p><b>LEGL160 Critical Thinking in Law</b> 3</p> <p><b>Prerequisite:</b> None</p> <p>This course strongly emphasizes the "learn by doing" approach, specifically by utilizing group dynamics. The panorama of thinking skills, particularly those relevant in law and criminal justice, will be examined and practiced. Innovative evaluation skills, both personal and group, are a regular part of each session. (F,Sp)</p>	<p><b>LEGL220 International Legal Issues/Organization</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in LEGL215</p> <p>This class will introduce global issues and organizations from the legal perspective and related economic and ethical perspectives. Cases based on events from around the globe will be used to illustrate principles, structures, and perspectives of citizens from many countries. Students will examine how these topics impact their daily activities. (Sp)</p>
<p><b>LEGL210 Litigation Procedures</b> 4</p> <p><b>Prerequisite:</b> Minimum 2.0 in (LEGL115 and LEGL215)</p> <p>Provides in-depth study of pre-trial, trial, and post-trial practice and procedure. Emphasizes Michigan and federal rules of court. Detailed study of drafting pleadings, discovery procedures, and case preparation for trial and appeal. Also covers evidentiary rules as they relate to trial practice and preparation. (F,Sp,Su)</p>	<p><b>LEGL221 Real Estate Transaction</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in (LEGL115 and LEGL215)</p> <p>Covers fundamental principles of real estate property law and introduces the student to common types of real estate transactions encountered by a paralegal in a typical real estate practice. Subject matter includes deeds, land contracts, mortgages, title insurance, environmental issues, forfeitures and foreclosures, and landlord-tenant relationships. (F)</p>
<p><b>LEGL211 Tort Law</b> 2</p> <p><b>Prerequisite:</b> Minimum 2.0 in (LEGL115 and LEGL215)</p> <p>Covers principles of negligence, intentional torts, and strict liability. Emphasizes the role of the paralegal in dealing with these areas of law in actual practice situations. (F,Sp)</p>	<p><b>LEGL222 Probate Law and Procedure</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in (LEGL115 and LEGL215)</p> <p>Probate process will be addressed in detail, from commencement of proceedings through closing the estate of a decedent. Other topics will include wills, trusts, and related topics. Emphasis is on the part played by the paralegal in preparation of documents and other probate practice tasks. (Sp)</p>
<p><b>LEGL215 Business Law I, Basic Principles</b> 3</p> <p><b>Prerequisite:</b> None</p> <p>Introduction to the legal system, its purpose, and the fundamental principles of various areas of the law. Course content includes sources of law, court procedures, contracts, torts, crimes, constitutional rights, no-fault auto insurance, landlord-tenant law, and bailments. Taught in traditional classroom style or online. (F,Sp,Su)</p>	<p><b>LEGL223 Domestic Relations</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in (LEGL115 and LEGL215)</p> <p>Covers marriage, divorce, separation, annulment, paternity proceedings, custody, support, property division, and other areas of domestic relations law. Emphasis will be on the paralegal's role in dealing with clients and applying appropriate statutes, case law, and court rules as part of a domestic law practice. (Sp)</p>
<p><b>LEGL216 Business Law II, Commercial Law</b> 3</p> <p><b>Prerequisite:</b> Minimum 1.0 in LEGL215</p> <p>An in-depth analysis of the Uniform Commercial Code allows students to explore the law of sales, commercial paper, secured transactions, banking, insurance, and debtor-creditor rights. Taught in traditional classroom style or online. (F,Sp,Su)</p>	<p><b>LEGL224 Administrative Law</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in (LEGL115 and LEGL215)</p> <p>The relationship of governmental administrative agencies to private citizens is explored by studying how law is created and enforced by such agencies at the state and federal levels. Paralegal students will focus on topics including rule making procedures, regulations, adjudication, licensing, and informal action. (F)</p>
<p><b>LEGL217 Business Law III, Business Organization</b> 3</p> <p><b>Prerequisite:</b> Minimum 1.0 in LEGL215</p> <p>Introduces basic business organizations, including agency law, partnerships, sole proprietorships, and corporations. Additionally, the course will delve into government regulation of business, real estate, wills, trusts, and estates. Taught in traditional classroom style or online. (F,Sp)</p>	<p><b>LEGL225 Legal Research and Writing II</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in (LEGL120 and LEGL121)</p> <p>Reviews principles of legal research, analysis, and writing. Introduces student to computer-assisted legal research (e.g. Lexis or Westlaw). Student will draft legal memoranda and a trial court brief based on extensive research assignments in Michigan publications. (F,Sp)</p>
<p><b>LEGL218 Litigation Specialties</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in (LEGL211 and LEGL215)</p> <p>Covers several specialty areas of law, for example personal injury, professional malpractice, products liability, workers' compensation, and no-fault auto insurance. Emphasizes role of paralegal in these practice areas, including drafting of legal instruments. (F)</p>	<p><b>LEGL226 Legal Interview and Investigation</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in (LEGL115 and LEGL215)</p> <p>Interviewing and investigation methods including information gathering, analysis, and effective communication. Emphasis will be placed on the role of the paralegal with numerous practical exercises. (Sp)</p>
<p><b>LEGL219 Advan Business Law for Accounting Majors</b> 4</p> <p><b>Prerequisite:</b> Minimum 1.0 in LEGL215</p> <p><b>Recommended:</b> Accounting background</p> <p>This self-paced course is intended for students majoring in accounting who have a goal of becoming a Certified Public Accountant (CPA). This course covers the law of sales; commercial paper; security devices; debtor-creditor relations; bankruptcy; insurance; agency; partnership; corporations; wills, trusts and estates; employment regulation; real property; and accountant's liability. This course is taught online. (F,Sp)</p>	<p><b>LEGL227 Bankruptcy and Collections</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in (LEGL115 and LEGL215)</p> <p>Explores federal bankruptcy law and procedure with emphasis on the paralegal's role in collecting information, interviewing clients, and preparing documents. Topics include a comparison of selected chapters within the bankruptcy code, exemptions, preferences, petitions, schedules, and the part played by the bankruptcy trustee. (Su)</p>

**LEGL228 Computer Applications for the Law Office** 3  
**Prerequisite:** Minimum 2.0 in (CITA119 or CITA219) and LEGL120  
**Recommended:** Windows and keyboarding experience  
 This course focuses on computer technology as it is applied within the law office, including the use of computers to perform paralegal functions in litigation support, legal research using tools including Lexis or Westlaw, communication and case management applications, such as calendar and docket control. (F,Sp)

**LEGL229 Immigration Law** 3  
**Prerequisite:** Minimum 2.0 in (LEGL115 and LEGL215)  
 This course covers fundamental principles and practical application of Immigration Law with emphasis on the paralegal's role. Topics will include sources, history, and future of immigration law, visas, citizenship, refugee/asylum, removal and defenses, impact on other areas of law, and working with clients from cultures around the world. (F,Su)

**LEGL230 Paralegal Career Portfolio** 1  
**Prerequisite:** Minimum 2.0 in LEGL225 or concurrently  
 Students will review legal documents and writing samples they have drafted throughout the paralegal program, and will revise selected documents. They will refine or prepare a cover letter, resume, and other application materials. Students will then assemble these materials in a career portfolio suitable for presentation at a job interview. Interviewing and job search skills will also be emphasized. (F,Sp)

**LEGL280 Paralegal Internship** 3  
**Prerequisite:** Department Approval  
 Students will experience the paralegal career by working in a supervised capacity. Placements include private law firms, governmental law offices, courts, corporations, and other law-related settings. Requirements include at least 160 hours in the workplace, weekly reports, periodic meetings, and performance evaluations by on-site supervisor. (F,Sp,Su)

### LING - Linguistics

**LING230 Introduction to Linguistics** 3  
**Prerequisite:** None  
 Examines human language from the perspective of contemporary American linguistics: generative syntax, phonology, and morphology. Special attention to the structure of English. Considers regional and social variation, and implications for teachers of language skills. (Sp)

### MASG - Massage

**MASG110 Massage for Non-Majors** 1  
**Prerequisite:** Must be 18 years of age  
 This course provides instruction in basic Swedish massage therapy skills for non-majors. Along with a brief introduction to the history and principles of massage therapy, the student will learn to perform a professionally draped, full-body Swedish massage on a partner for health enhancement. (F,Sp,Su)

**MASG131 Therapeutic Massage I** 4  
**Prerequisite:** Minimum 2.5 in BIOL145 or concurrently and Evidence of HS Graduation or GED and Reading Level 5 and Writing Level 6 and Department Approval  
 This course provides information on the theory and practice of therapeutic massage. Swedish massage techniques with variations are developed into a sequence for a full body therapeutic massage for healthy adults. Topics include basic anatomy and physiology of major muscle groups and bones, massage benefits and contraindications, professional ethics, body mechanics, and self-care. (F,Sp)

**MASG136 Medical Elements of Massage** 3  
**Prerequisite:** Minimum 2.5 in MASG131 or concurrently  
 This course will introduce the student to pathology of body systems and will address the positive or negative impact that massage therapy may have on those conditions. The student will also learn some basic medical vocabulary words to correspond with each body system. (F,Sp)

**MASG138 Fundamentals of Clinical Massage** 1  
**Prerequisite:** Minimum 2.5 in MASG131 and Reading Level 5 and Writing Level 6  
 This course prepares students to interact with massage clients as well as with allied health professionals. Active listening, rapport, empathy, and feedback skills used in a therapeutic massage environment will be taught. Students will develop an understanding of the physiological and emotional effects of touch and will learn protocol for establishing professional boundaries. (F,Sp)

**MASG141 Massage Clinic I** 1  
**Prerequisite:** Minimum 2.5 in (MASG136 and BIOL145) and (MASG138 or concurrently) and Passing grade in EMSB102  
**Recommended:** Minimum 2.5 in (MASG151 or MASG151D)  
 Students will progressively utilize the knowledge, skills, and practical experience attained throughout the Therapeutic Massage Program in a clinical setting. The student will be engaged in weekly scheduled massage sessions with clients in this first of three clinical courses. (F,Sp,Su)

**MASG150 Therapeutic Massage Special Topics** .25-4  
**Prerequisite:** Determined by Unit Section  
 This course offers students the opportunity to learn new skills and knowledge related to therapeutic massage. Specific up-to-date course content will vary with each offering and will be related to therapeutic massage. (F,Sp,Su)

**MASG151 Applied Massage Techniques** 4  
**Prerequisite:** Minimum 2.5 in MASG131 or concurrently  
 This course will introduce the student to various massage therapy techniques and how these techniques relate to individuals with specific needs. The focus will be on designing and implementing appropriate massage therapy techniques for chair massage, infants, pregnant women, athletes, chronic and terminally ill individuals, the elderly, and clients with psychological issues. (F,Sp)

**MASG151A Chair Massage** 1  
**Prerequisite:** Minimum 2.5 in MASG131 or concurrently  
 This course will introduce the student to chair massage techniques. Student will learn palpation skills and identification of bony landmarks and muscles. Use of body mechanics to reduce strain on the therapist is emphasized. (Sp)

**MASG151B Sports Massage** 1  
**Prerequisite:** Minimum 2.5 in MASG131 or concurrently  
 This course prepares the student to perform massage prior to and following an athletic event or training session. Thermal injuries, the use of ice and heat to supplement the healing effects of massage, cross fiber friction techniques, indications, contraindications and procedures are covered. (Sp)

**MASG151C Maternal/Infant Massage** 1  
**Prerequisite:** Minimum 2.5 in MASG131 or concurrently  
 This course teaches massage techniques specifically beneficial to women during pregnancy and post-partum recovery. Massage techniques beneficial to infants and young children will also be introduced. (F)



**MASG151D Special Populations 1**

**Prerequisite:** Minimum 2.5 in MASG131 or concurrently  
Students learn to adapt massage techniques to the needs of special populations. The focus will be on designing and implementing appropriate massage therapy techniques for the chronic and terminally ill, the elderly, and clients with psychological and emotional issues. (Sp)

**MASG170 Massage Directed/Independent Study .25-4**

**Prerequisite:** None  
This course includes special research, projects, or directed study in therapeutic massage. Massage students may enroll to update or enhance knowledge, skills, and competencies. Advanced students may explore topics related to, but not included in the curriculum. A learning contract specifying objectives, activities, outcomes, and grading methods is required. (F,Sp,Su)

**MASG231 Therapeutic Massage II 4**

**Prerequisite:** Minimum 2.5 in MASG131  
This course will introduce the student to clinical massage techniques to treat conditions of the upper body. Students will learn anatomy, physiology, and kinesiology of specific muscles of the head, neck, upper extremities, and torso followed by clinical massage techniques and stretches to treat these areas. (F,Sp)

**MASG232 Therapeutic Massage III 4**

**Prerequisite:** Minimum 2.5 in MASG231  
This course will introduce the student to clinical massage techniques to treat conditions of the lower body. Students will learn anatomy, physiology and kinesiology of specific muscles of the torso, hips and lower extremities followed by clinical massage techniques and stretches to treat these areas. (F,Sp)

**MASG241 Massage Clinic II 1**

**Prerequisite:** Minimum 2.5 in MASG141 and (minimum 2.5 in MASG231 or concurrently)  
Students will progressively utilize the knowledge, skills, and practical experience attained throughout the Therapeutic Massage Program in a clinical setting. The student will be engaged in weekly scheduled massage sessions with clients in this second of three clinical courses. (F,Sp,Su)

**MASG242 Massage Clinic III 1**

**Prerequisite:** Minimum 2.5 in MASG241 and (minimum 2.5 in MASG232 or concurrently)  
Students will progressively utilize the knowledge, skills, and practical experience attained throughout the Therapeutic Massage Program in a clinical setting. The student will be engaged in weekly scheduled massage sessions with clients in this last of three clinical courses. (F,Sp,Su)

**MASG251 Alternative Massage Techniques 4**

**Prerequisite:** Minimum 2.5 in MASG131 or concurrently  
Students will be introduced to bodywork modalities that include reflexology, polarity, Shiatsu, and positional release through lecture, demonstration, and practice time. Topics will include how to locate specialized training programs in each modality and how to incorporate these techniques into a massage session. (F,Sp)

**MASG251A Polarity Therapy 1**

**Prerequisite:** Minimum 2.5 in MASG131 or concurrently  
Students will be introduced to polarity techniques through lecture, demonstration, and practice time. Topics will include how to locate specialized training programs and how to incorporate these techniques into a massage session. (F)

**MASG251B Reflexology 1**

**Prerequisite:** Minimum 2.5 in MASG131 or concurrently  
Students will be introduced to reflexology techniques through lecture, demonstration, and practice time. Topics will include how to locate specialized training programs and how to incorporate these techniques into a massage session. (Sp)

**MASG251C Asian Body Therapy 1**

**Prerequisite:** Minimum 2.5 in MASG131 or concurrently  
Students will be introduced to Asian Body Therapy techniques through lecture, demonstration, and practice time. Topics will include how to locate specialized training programs and how to incorporate these techniques into a massage session. (F)

**MASG251D Positional Release 1**

**Prerequisite:** Minimum 2.5 in MASG231 or concurrently  
Students will be introduced to positional release techniques through lecture, demonstration, and practice time. Topics will include how to locate specialized training programs in each modality and how to incorporate these techniques into a massage session. (F)

**MASG254 Busn Applications Therapeutic Massage 2**

**Prerequisite:** Minimum 2.5 in MASG231 or concurrently  
This course introduces students to aspects of business and marketing in the field of massage and body work. Emphasis is placed on development of a professional and personal business sense using planning and persistence, client-practitioner relationships, research, marketing strategy, goal-setting, motivation, and professional legalities. (Sp,Su)

**MASG256 Clinical Assessment Therapeutic Massage 1**

**Prerequisite:** Minimum 2.5 in MASG231 or concurrently  
This course introduces the student to a system of dealing effectively with the client who presents a physical complaint. The principles and methods practiced by effective clinicians are identified and explained so that the student can use the problem oriented approach to analyze neuromuscular problems and complaints. (F)

**MASG261 Massage Practicum .5**

**Prerequisite:** Minimum 2.5 in MASG232 or concurrently  
Students will apply massage techniques and experience a variety of environments and populations as they perform supervised work in the community. (F,Sp)

**MATH - Mathematics**

**MATH001 Math Minus Anxiety Workshop .5**

**Prerequisite:** None  
This workshop addresses anxiety as it relates to mathematics. The session will focus on causes and management of math anxiety. Some problem solving and study skills will be included. Students at any math level may enroll. (F,Sp)

**MATH050 Pre Algebra 4**

**Prerequisite:** Math Level 3 and Reading Level 3 and Writing Level 2  
This course reviews mathematical operations involving fractions and decimals. Topics include percents, ratios, proportions, U.S. and metric measurements, integers, statistical graphs, Pythagorean Theorem, perimeter, area, and volume. It also introduces algebraic concepts using expressions and equations. Problem solving, estimation, and reasoning skills are taught. The calculator and real-life applications are integrated throughout the course. (F,Sp,Su)

**MATH107 Introductory Algebra** 4

**Prerequisite:** (Minimum 2.0 in MATH050 or Math Level 4) and Reading Level 5 and Writing Level 2

Graphing calculator required. Topics include problem solving, properties of real numbers and exponents, variable expressions, solving linear equations and inequalities, polynomial operations, graphing, solving systems of equations and inequalities, linear regression, absolute value equations and inequalities, functions and relations. Graphing calculator, diverse, real-life applications and geometry are integrated throughout the course. (F,Sp,Su)

**MATH112 Intermediate Algebra** 4

**Prerequisite:** (Minimum 2.0 in MATH107 within 2 years or Math Level 5 within 2 years) and Reading Level 5 and Writing Level 4

Graphing calculator required. This is an extension of beginning algebra, using the graphing calculator, with emphasis on graphing and diverse, real-life applications, including linear, quadratic, rational, and other functions. Also emphasized are polynomials, rational expressions, radicals, rational exponents, equations and inequalities with an introduction to complex numbers. (F,Sp,Su)

**MATH114 Technical Math I** 4

**Prerequisite:** (Minimum 2.0 in MATH050 within 2 years or Math Level 4) and Reading Level 4

This course introduces and/or reviews algebra, geometry, and trigonometry. Topics include order of operations, simplifying algebraic expressions, powers, roots, formulas, area, volume, ratio and proportion, linear and quadratic equations, linear systems of equations, graphing, angles, triangles, Pythagorean Theorem, and right triangle trigonometry. Emphasis is placed on problem-solving techniques for technical applications. (F,Sp,Su)

**MATH115 Technical Math II** 4

**Prerequisite:** (Minimum 2.0 in MATH114 within 2 years or Math Level 5) and Reading Level 5

A continuation of MATH114. Topics include: congruent and similar triangles; polygons; circles with angles, chords, and tangents; applications of right and oblique triangles using the Pythagorean Theorem, trig functions, law of sines, law of cosines, and law of cotangents. Emphasis is placed on problem-solving techniques for technical applications. (F,Sp,Su)

**MATH117 Math for Business** 4

**Prerequisite:** (Minimum 2.0 in MATH107 within 2 years or Math Level 5) and Reading Level 5 and Writing Level 4

This course surveys math applications in business. Applications representing management, marketing, finance, accounting, and statistics are used. Analysis of situations in business and correct use of business theory is emphasized in addition to accuracy in math. (F,Sp)

**MATH118 The Art of Geometry** 3

**Prerequisite:** (Minimum 2.0 in MATH107 within 2 years or Math Level 5) and Reading Level 5 and Writing Level 4

This course emphasizes visualization and appreciation of the beauty of mathematics through geometry; translates between visual and symbolic representations of objects used in visual arts; applies mappings, symmetry, similarity, tilings, vectors, and geometric constructions of shapes to working with 2D and 3D figures; uses geometry software, hands-on techniques and models. (F,Sp)

**MATH119 Investigations with Math** 3

**Prerequisite:** (Minimum 2.0 in MATH107 within 2 years or Math Level 5) and Reading Level 5 and Writing Level 4

Uses strategies of arithmetic, geometry, and algebra to solve problems and effectively communicate solutions in a variety of occupational disciplines. Applies reasoning, problem solving, teamwork, mathematical thinking and modeling, visual models, and hands-on activities to measurement, proportions, percents, graphs, formulas, variables, geometry concepts, coordinate systems, and statistical reasoning and probability. (F,Sp)

**MATH121 College Algebra I** 4

**Prerequisite:** (Minimum 2.0 in MATH112 within 2 years or Math Level 6) and Reading Level 5 and Writing Level 4

This course provides the foundation in college algebra essential for all subsequent mathematics courses. (After completing MATH121, students may take MATH122, 130, 141 and STAT170.) Topics include polynomial, rational, radical, exponential, and logarithmic functions; solving equations/inequalities algebraically and graphically; and mathematical modeling/regression in problem solving. (F,Sp,Su)

**MATH122 College Algebra II and Trigonometry** 3

**Prerequisite:** (Minimum 2.0 in MATH121 within 2 years or Math Level 8) and Reading Level 5 and Writing Level 4

Second in two-course sequence, following MATH121. Topics include right triangle trigonometry, trigonometric functions, graphs, identities and equations, inverse trig functions, laws of sines/cosines, binomial theorem, systems of linear equations, vectors; polar coordinates, sequences, series, permutations, combinations. Degree credit may not be earned in both MATH121-122 and MATH126. (F,Sp,Su)

**MATH126 College Algebra and Trigonometry** 5

**Prerequisite:** (Minimum 3.5 in MATH112 within 2 years or Math Level 7) and Reading Level 5 and Writing Level 4

Intensive course covering the same material as MATH121-122. Topics include algebraic and transcendental functions, solving equations/inequalities algebraically and graphically, mathematical modeling, trigonometric identities, laws of sines/cosines, binomial theorem, vectors, polar coordinates, sequences, series, permutations and combinations. Degree credit may not be earned in both MATH126 and MATH121-122. (F,Sp,Su)

**MATH130 Finite Mathematics with College Algebra** 4

**Prerequisite:** (Minimum 2.0 in MATH112 within 2 years or Math Level 6) and Reading Level 5 and Writing Level 4

This course is for students whose programs do not require trigonometry. Topics include linear, exponential, quadratic, polynomial and logarithmic functions, mathematics of finance, matrices, linear programming, permutations, combinations, probability, and logic. In addition, students will solve applied problems by completing required computer assignments. (F,Sp,Su)

**MATH141 Calculus with Applications** 3

**Prerequisite:** (Minimum 2.0 in MATH121 or MATH126 or MATH130 within 2 years or Math Level 8) and Reading Level 5 and Writing Level 4

This course provides an introduction to calculus with an emphasis on applications in business, economics, social/life sciences and other fields not requiring an extensive study of calculus. Topics include functions, derivatives, the definite integral and their applications. (Mathematics, Physical Science, Computer Science, and Engineering majors should take MATH151.) (F,Sp,Su)

**MATH151 Calculus I** 4

**Prerequisite:** (Minimum 2.0 in MATH122 or MATH126 within 2 years or Math Level 9) and Reading Level 5 and Writing Level 4

The first course in a three semester calculus sequence. Topics include limits, continuity, derivatives of algebraic, trigonometric, exponential and logarithmic functions, linear approximation, integration and the fundamental theorems of calculus. Applications of the calculus to both physical and geometric problems are emphasized. (F,Sp,Su)

**MATH152 Calculus II** 4

**Prerequisite:** (Minimum 2.0 in MATH151 or MATH161 within 2 years) and Reading Level 5 and Writing Level 4

The second course in a three-semester calculus sequence. Topics include techniques and applications of integration, L'Hopital's rule, derivatives of inverse trigonometric functions, improper integrals, sequences and infinite series, power series representation of functions, conic sections, and polar coordinates. (F,Sp,Su)

**MATH161 Honors Calculus I** 4

**Prerequisite:** (Minimum 3.0 in MATH122 or MATH126 within 2 years) and Reading Level 5 and Writing Level 6

First course in a three semester honors calculus sequence. Topics include limits, continuity, derivatives of algebraic, trigonometric, exponential and logarithmic functions, linear approximation, integration, and fundamental theorems of calculus. Applications of calculus to both physical and geometric problems is emphasized, in addition to a special emphasis on concepts and theory. (F,Sp)

**MATH162 Honors Calculus II** 4

**Prerequisite:** Minimum 2.0 in MATH161 or minimum 3.0 in MATH151 within 2 years

Second course in a three semester honors calculus sequence. Topics include techniques and applications of integration, L'Hopital's rule, derivatives of inverse trigonometric functions, improper integrals, sequences and infinite series, power series representation of functions, conic sections and polar coordinates. Special emphasis is placed on concepts and theory. (F,Sp)

**MATH201 Math for Elementary Teachers I** 4

**Prerequisite:** (Minimum 2.0 in MATH112 within 2 years or Math Level 6) and Reading Level 5 and Writing Level 6

This course is the first in a two-course sequence providing mathematical background for prospective elementary teachers. Emphasis is on active engagement in mathematical investigations to develop problem-solving skills and conceptual knowledge essential for teaching elementary school mathematics. (F,Sp)

**MATH202 Math for Elementary Teachers II** 4

**Prerequisite:** Minimum 2.0 in MATH201 within 2 years and Reading Level 5 and Writing Level 6

This course is the second in a two-course sequence providing mathematical background for prospective elementary teachers. Emphasis is on active engagement in mathematical investigations to develop problem-solving skills and conceptual knowledge essential for teaching elementary school mathematics. (F,Sp)

**MATH253 Calculus III** 4

**Prerequisite:** (Minimum 2.0 in MATH152 or MATH162 within 2 years) and Reading Level 5 and Writing Level 4

The last course in a three-semester calculus sequence. Multivariable calculus and vector analysis are studied. Topics include vector algebra, curves and surfaces in 3-space, vector valued functions, partial derivatives, multiple integrals, and line integrals. Applications of all these topics are presented. (F,Sp,Su)

**MATH254 Introduction to Differential Equations** 3

**Prerequisite:** Minimum 2.0 in MATH253 within 2 years and Reading Level 5 and Writing Level 4

An introduction to the basic methods for solving ordinary differential equations. Topics include the methods of undetermined coefficients, variation of parameters, series, Laplace transforms, and numerical methods. Applications are emphasized. (F,Sp,Su)

**MATH260 Linear Algebra** 3

**Prerequisite:** Minimum 2.0 in MATH253 within 2 years and Reading Level 5 and Writing Level 4

This introduction to linear algebra includes the study of systems of linear equations, matrix algebra, vector spaces, linear transformations, eigenvalues and eigenvectors, with applications. (Sp)

**MATH281 Honors Math Seminar I** 1

**Prerequisite:** (Minimum 2.0 in MATH151 or MATH161) and Department Approval

Students solve a set of challenging mathematics problems which are not normally encountered in other classes. Creative and independent thinking is encouraged and developed. (Sp)

**MATH282 Honors Math Seminar II** 1

**Prerequisite:** Minimum 2.0 in MATH281 and Department Approval

Students solve a set of challenging mathematics problems which are not normally encountered in other classes. Creative and independent thinking is encouraged and developed. (Sp)

**MATH295 Independent Study in Mathematics** 1-4

**Prerequisite:** Department Approval

An opportunity for self-directed learners to explore topics related to, but not taught in the curriculum. Students spend at least two hours per week for each credit. A detailed proposal must be submitted by the student for approval by the Department and supervising instructor prior to registration. (F,Sp,Su)

**METD - Manufacturing Engineering Technology — Design**

**METD100 Basic Mechanical Drafting** 3

**Prerequisite:** Reading Level 3 and Writing Level 2 and Math Level 3

This course teaches the fundamental concepts of drafting and design using sketches and manual drafting skills. The student will learn the basics of orthographic projection, lettering, sketching, dimensioning techniques, and much more. (F,Sp,Su)

**METD105 PC Applications for Technology** 3

**Prerequisite:** None

This course provides an introduction to PCs as used in a technical-industrial setting. Basic computer hardware knowledge and simple file management practices are taught. Students will use Windows XP, word processing, spreadsheet, computer graphics, and presentation software. The Internet will be used to obtain assignments, turn in homework, and research projects. (F,Sp,Su)

**METD110 Mechanical CAD Drafting I** 4

**Prerequisite:** (Minimum 2.0 in METD100 (previously CADD100) or Drafting Placement Test 80%) and Reading Level 4 and Writing Level 4 and Math Level 4

This is an introductory course in mechanical drafting and computer aided drafting using AutoCAD software. Instruction includes orthographic projection, auxiliary views, secondary auxiliary view projections, sections, dimensioning techniques, and printing. Students will complete a series of drawings on the computer to demonstrate understanding of the concepts presented. (F,Sp,Su)

- METD111 Mechanical CAD Drafting II** 4  
**Prerequisite:** Minimum 2.0 in METD110 (previously CADD101) and Reading Level 4 and Writing Level 4 and Math Level 4  
 This course covers advanced drafting and design techniques needed to project successive auxiliary views from various orthographic views. Layout and design concepts will also be stressed. Students will use computers with AutoCAD software to complete practical design projects in problem solving and creativity applicable to the automotive, industrial, and/or aerospace industries. (F,Sp)
- METD120 Planning and Scheduling** 3  
**Prerequisite:** (Minimum 2.0 in METD105 (previously CADD105) or PC Applications for Technology Placement Test 80%) and Reading Level 4 and Writing Level 4 and Math Level 4  
 An introduction to planning, scheduling, and managing jobs within a manufacturing environment. Students quote and enter jobs into a scheduling system, create travelers, collect time against existing jobs, generate charts, create visuals, and report status regarding an existing job. Teamwork, work flow, work cells, standardization, outsourcing, and automation will be discussed. (F,Sp,Su)
- METD130 Geometric Dimensioning and Tolerancing** 3  
**Prerequisite:** (Minimum 2.0 in METD100 (previously CADD100) or Drafting Placement Test 80%) and Reading Level 4 and Writing Level 4 and Math Level 4  
 This course covers the principles and methods of dimensioning and tolerancing for specific design requirements on engineering drawings. Uniform practices for stating and interpreting these requirements will be stressed. Content includes use and understanding of the symbolic method of specification relating to tolerances being applied using ASME/ANSI M14.5Y 1994 standards. (F,Sp)
- METD150 Industrial Blueprint Reading** 3  
**Prerequisite:** Minimum 2.0 in METD100 (previously CADD100) or Drafting Placement Test 80%  
 This course covers basic concepts in orthographic projection, with emphasis on interpretation of engineering drawings. Areas also covered include measurement systems, technical sketching, dimensioning, sectional and auxiliary views, and tolerancing. (F,Sp,Su)
- METD151 Advanced Blueprint Reading** 3  
**Prerequisite:** Minimum 2.0 in METD150 (previously CADD110)  
 This course covers advanced concepts of industrial blueprint reading, with emphasis on interpretation of engineering drawings. Areas also covered include hydraulic, pneumatic, and electrical schematics, coolant and lubrication systems, tolerancing, and layout drawings. (F,Sp)
- METD170 Special Topics in Engineering & Design** .25-8  
**Prerequisite:** Determined by Unit Section  
 This course offers students the opportunity to learn new or advanced skills in Computer Aided Drafting and Design and other related topics. Specific content may vary with each offering and will be related to the Computer Aided Drafting and Design Program and profession. (F,Sp,Su)
- METD210 Basic Autodesk Inventor** 4  
**Prerequisite:** Minimum 2.0 in METD110 (previously CADD101)  
 Students will create part and assembly models and document those designs with drawing views. Students will use Autodesk Inventor to create features used to create, edit, document, and print parts and assemblies. Students will also learn how to make use of Inventor's Design Support System (DSS) to find solutions to design problems. (F,Sp)

- METD211 Advanced Autodesk Inventor** 4  
**Prerequisite:** Minimum 2.0 in METD210 (previously CADD222) and Math Level 5  
 Upon successful completion of this course the student will be able to create complex free-form parts and assembly models with moving and adaptive parts as well as use Inventor to edit, document, and print parts and assemblies. The student will also learn how to use Autodesk Inventor's Project Manager to track a design. (F,Sp)
- METD220 Unigraphics Basic** 4  
**Prerequisite:** Minimum 2.0 in METD110 (previously CADD101)  
 This is the first of a two-semester course sequence that covers the fundamentals of the Unigraphics System of interactive design. This course covers comprehensive CAD concepts of 2-D and 3-D construction and basic solid modeling, as well as some of the concepts of drafting. Prior CAD system experience is required. (F,Sp,Su)
- METD221 Unigraphics Advanced** 4  
**Prerequisite:** Minimum 2.0 in (METD130 (previously CADD103) and METD220 (previously CADD242)) and Math Level 5  
 This is the second of a two-semester course sequence that covers the design and construction of sophisticated solid models of complex assemblies and components, and the production of dimensioned and toleranced engineering drawings of those components. Advanced concepts of Unigraphics modeling will be discussed and utilized in class projects. (F,Sp)
- METD230 CAM Data Preparation** 2  
**Prerequisite:** Minimum 2.0 in (METD220 (previously CADD242) and METM220 (previously PMMT210)) and Reading Level 5 and Writing Level 6 and Math Level 5  
 This course provides the knowledge and skills necessary to modify CAD mold data prior to machining. The student is introduced to feature creation and suppression, adding attribute information to a CAD model, bill of material generation, reference sets, and creating simplified machining models for rough machining operations. (F,Sp,Su)
- METD250 Detailing Assembly Drawings** 4  
**Prerequisite:** Minimum 2.0 in (METD130 (previously CADD103) and METM110 (previously PMMT105)) and Reading Level 5 and Writing Level 6 and Math Level 5  
 This course builds on previous courses giving students an advanced understanding of assemblies and the details pulled from CAD assemblies. Students will also be able to identify how machine processes and various types of dies and components are used to create parts and assemblies. (F,Sp)
- METD260 Jigs and Fixture Design** 4  
**Prerequisite:** Minimum 2.0 in METD250 (previously CADD270)  
 This course will teach detailing techniques and dimensioning which will be emphasized through the development of working drawings. These drawings will be extracted from a design concept or assembly type drawing. Familiarization with standard components will also be stressed. Students will be responsible for being familiar with and understanding various jig and fixture components. (F,Sp)
- METD270 Beginning Mold Design** 4  
**Prerequisite:** Minimum 2.5 in METD220 (previously CADD242)  
 This course instructs students in the design principles of plastic injection molds and products. CAD software will be used to design injection molds and undercuts, determine proper temperatures, identify various types of ejection methods, and choose appropriate injection methods. Students will print designs using a 3D printer. (F,Sp)

**METD271 Advanced Mold Design** 3**Prerequisite:** Minimum 2.5 in METD270 (previously CADD286)

This course instructs students in moldflow analysis. Identification of materials, creation and analysis of 3D models, and interpretation of the data to determine optimum process feasibility will be stressed. Tooling and plastic products will be emphasized when using the finite element analysis software in the creation of molds. (F,Sp,Su)

**METD295 Engineering & Design Project Lab** 1-4**Prerequisite:** Department Approval

This course is intended to give advanced drafting and design students an opportunity, through mutual agreement between student and instructor, to complete project(s) on one of several available CAD systems. (F,Sp)

**METM - Manufacturing Engineering Technology — Machining****METM100 Manufacturing Processes** 4**Prerequisite:** Reading Level 3 and Writing Level 4**Recommended:** MATH050 or Math Level 4

This course provides students with a comprehensive study of the materials, concepts, and processes used in modern manufacturing which is augmented by field trips to local manufacturing plants. This course is designed for those who are pursuing careers in manufacturing design, engineering, and supervision. (F,Sp,Su)

**METM105 TQM in Manufacturing and Production** 4**Prerequisite:** Minimum 2.0 in (MATH050 or Math Level 4) and Reading Level 5 and Writing Level 4

Students will learn the basic principles, concepts and philosophy of quality in the manufacturing environment. This course emphasizes process capability, control charts, methods and analysis, production and inventory control of an industrial organization. Using manufacturing systems, students will collect and analyze data to control manufacturing parameters to maintain product specifications. (F,Sp)

**METM110 Introduction to Precision Machining** 4**Prerequisite:** (Minimum 2.0 in METD100 (previously CADD100) or Drafting Placement Test 80%) and (minimum 2.0 in METD105 (previously CADD105) or concurrently or PC Applications for Technology Placement Test 80%) and Reading Level 3 and Writing Level 4 and Math Level 4

This course introduces machine tool principles and practices used in industry. Topics include safety, terminology, manual milling, lathe, grinding, drilling, basic CNC, and measurement. A working knowledge of hand and machine tools is achieved through a series of lectures, demonstrations, and hands-on projects. (F,Sp)

**METM115 Introduction to Plastics** 3**Prerequisite:** Minimum 2.0 in METM100 (previously PMMT100) and Reading Level 5 and Writing Level 4

This course will provide students an introduction to the plastics industry. Materials and production development will be taught including an overview of basic methods. Plastics terminology will also be covered. Safe operating procedures will be emphasized. (F,Sp)

**METM120 Effective Use of Machinery Handbook** 4**Prerequisite:** Reading Level 3 and Math Level 4

Machinery's Handbook is the recognized source for all phases of the metal working industry. This course will familiarize each student with the effective utilization of information contained in Machinery's Handbook. (F,Sp,Su)

**METM130 Issues in Global Manufacturing** 4**Prerequisite:** Reading Level 5 and Writing Level 6

This course introduces current issues and trends in the manufacturing environment. Students will learn methods to organize and develop resources for continuous improvement. This course will emphasize team work and inter-related functions within successful companies including research, conceptual design, detailed design, production planning, lean manufacturing, sales, and customer support. (F,Sp)

**METM150 Advanced Precision Machining** 4**Prerequisite:** Minimum 2.0 in METM110 (previously PMMT105) and Reading Level 4 and Writing Level 4 and Math Level 4

In this course, students will set up and operate CNC lathes, CNC mills, and grinding equipment, write CNC programs, identify and select tooling, and perform precision measurements. Topics covered include safety and preventive maintenance, the eight basic functions of a CNC machine control, and high speed machining processes. (F,Sp)

**METM170 Special Topics in Precision Machining** .25-8**Prerequisite:** Determined by Unit Section

This course offers students the opportunity to learn new or advanced skills in Precision Machining and Maintenance and other related topics. Specific content may vary with each offering but will be related to the Precision Manufacturing Technology Program and profession. (F,Sp,Su)

**METM190 Metallurgy and Heat Treatment** 4**Prerequisite:** Reading Level 5 and Writing Level 6 and Math Level 4**Recommended:** High School Chemistry or CHEM195

This course introduces the science of metallurgy, a domain of materials science that studies the physical and chemical behavior of metallic elements. Students acquire a working knowledge of the properties, uses and heat treat processes of commonly used metals and alloys. Topics are explored through lecture and laboratory analysis. (F,Sp,Su)

**METM195 Metrology and Advanced Inspection** 2**Prerequisite:** Minimum 2.0 in (METD130 (previously CADD103) and METM110 (previously PMMT105)) and Reading Level 4 and Writing Level 2 and Math Level 4

This pre-engineering course introduces the science of precision measurement, focusing on accuracy and application as well as problem solving as it relates to dimensional metrology. Topics include measurement processes and feasibility, industry standards, and operation of the Coordinate Measuring Machine. Quality systems, calibration systems, and Statistical Process Control are also explored. (F,Sp,Su)

**METM200 High Speed Precision Milling** 3**Prerequisite:** Minimum 2.0 in METM150 and Reading Level 4 and Writing Level 4 and Math Level 4

Students learn advanced CNC programming using CAM software (currently PowerMILL). They will design, program, and run complex three-dimensional CNC programs. Students will create mold inserts using small diameter tools with high spindle speeds and feed rates, while emphasizing minimal tool breakage, air time, programming time and high quality surface finish, using multi-axis machining techniques. (F,Sp)

**METM210 Advanced High Speed Precision Milling** 3**Prerequisite:** Minimum 2.0 in METM200 and Reading Level 5 and Writing Level 6 and Math Level 5

Students learn how to design, program, and run complex three-dimensional CNC programs. Mold inserts using small diameter tools with high spindle speeds and high feed rates will be created. This class emphasizes minimal tool breakage, air time, programming time and surface finish using 3-, 4-, and 5-axis milling. (F,Sp)

- METM220 Basic Mastercam** 4  
**Prerequisite:** Minimum 2.0 in METM110 (previously PMMT105)  
 Mastercam is a powerful graphics based programming software for CNC machine tools. Mastercam software is designed to generate CNC programs from mechanical CAD drawings. Students will use Mastercam to solve CNC programming problems in both 2-D and 3-D environments and run selected programs on CNC equipment. (F,Sp)
- METM221 Advanced Mastercam** 4  
**Prerequisite:** Minimum 2.0 in METM220 (previously PMMT210)  
 The student will learn the advanced CNC programming functions of the MasterCAM software. The successful student will be able to design, program, and run 3-dimensional CNC programs and check the toolpath using the MasterCAM verify toolpath function. (F,Sp)
- METM225 Basic Unigraphics NC** 4  
**Prerequisite:** Minimum 2.0 in (METM110 (previously PMMT105) and METD220 (previously CADD242))  
 Unigraphics NC (Numerical Control) is a leader in parametric Computer Aided Manufacturing software used to graphically program CNC machine tools. Course topics will cover preparation of drawings for programming, basic APT programming, Multi-axis programming and Overlay features. Selected programs will be run on CNC machines. (Sp)
- METM230 Principles of Electric Discharge Machine** 4  
**Prerequisite:** Reading Level 4 and Writing Level 4 and Math Level 5  
**Recommended:** METM110 (previously PMMT105)  
 This course introduces the student to the fundamentals of Electrical Discharge Machining (EDM). Safety, principles of operation, programming and operation of both Ram and Wire EDM are explored. Lectures, demonstrations and projects are used. Projects assigned will require setup, programming and operation of EDM machines. (F,Sp)
- METM235 Electrode Extraction** 2  
**Prerequisite:** Minimum 2.0 in (METD220 (previously CADD242) and METM220 (previously PMMT210)) and Reading Level 4 and Writing Level 4 and Math Level 4  
 An introduction to creating CAD models for Electrical Discharge Machining (EDM). The student will determine when conventional machining is not applicable and when an extracted electrode is required. Student's design, program, and machine electrodes. Visual documentation for electrode burn locations are generated, and tool path templates applied to machining electrodes. (F,Sp)
- METM250 Mold Build Fitting and Spotting** 3  
**Prerequisite:** Minimum 2.0 in METM150 and Reading Level 4 and Writing Level 4 and Math Level 4  
 This course instructs students in fitting and spotting processes of mold inserts prior to final assembly of a plastic injection mold. Emphasis is placed on fitting and spotting processes relative to repairing an existing mold. Techniques to minimize the fitting and spotting of a new mold will also be demonstrated. (F,Sp)
- METM260 Mold Build Assembly** 3  
**Prerequisite:** Minimum 2.0 in METS115 and Reading Level 4 and Writing Level 4 and Math Level 4  
 This course examines mold assembly principles and practices used in industry, including safety, terminology, assembly, and disassembly techniques. Mold processes and mold build procedures are used to complete new and repaired molds. A working knowledge of mold assembly and mold repair is achieved using mechanical, hydraulic, electrical, and welding applications. (F,Sp)

- METM295 Precision Machine Project Lab** 1-4  
**Prerequisite:** Department Approval  
 An advanced course for students wishing to do in-depth work in the machine shop area or to develop trade-entry skills. Students select projects compatible with their individual fields of work. (Approval may be given to take this course twice for a maximum of eight credits.) (F,Sp,Su)

### METS - Manufacturing Engineering Technology — Systems

- METS100 Maintenance Safety Practices** 2  
**Prerequisite:** Reading Level 3 and Writing Level 4  
 This course covers the basics of safety in the machine maintenance occupations. Included are local, state and federal safety regulations. This course is a Prerequisite: for, or to be taken concurrently with all MFGM courses that have a lab. (F,Sp,Su)
- METS105 Handtools and Measurements** 3  
**Prerequisite:** Minimum 2.0 in METS100 (previously MFGM100) or concurrently  
 This course teaches the student the proper and safe use of hand tools used in the manufacturing maintenance profession. The proper use of torque wrenches, power hand tools, wrenches, marking and striking devices, measurement devices, taps and dies, and other miscellaneous hand tools is covered. (F,Sp,Su)
- METS110 Mechanical Power Transmissions** 4  
**Prerequisite:** Minimum 2.0 in (METS100 (previously MFGM100) or concurrently) and (minimum 2.0 in METM110 (previously PMMT105))  
 This course will teach theory and industrial application of power transmission gear drive systems, chain drive systems, belt drive systems, couplings, clutch and brake and more. (F,Sp)
- METS115 Introduction to Mechanical Systems** 3  
**Prerequisite:** Reading Level 4 and Writing Level 4 and Math Level 4  
 This course introduces the student to the theory and selection criteria for mechanical power systems. Topics discussed include pneumatics, hydraulics, and mechanical drives. Lectures include fundamentals and real life applications in designing basic systems. (F,Su)
- METS120 Industrial Pneumatics** 3  
**Prerequisite:** Minimum 2.0 in (METS100 (previously MFGM100) or ELTE100 or concurrently)  
 An introduction to the concepts, principles, and components of industrial pneumatic systems, this course covers gas laws, theory of air compression, regulators, filters, valves, pneumatic actuators, and pneumatic circuits with emphasis on pneumatic diagrams and circuit design. Lecture and labs give students a hands-on approach to the field of pneumatics. (F,Sp)
- METS130 Industrial Hydraulics** 4  
**Prerequisite:** Minimum 2.0 in (METS100 (previously MFGM100) or ELTE100 or concurrently) and Reading Level 4 and Writing Level 4 and Math Level 4  
 Industrial hydraulics introduces the theory of fluid power and circuits covering pumps, pressure valves, flow valves, cylinders, filters and motors, etc., as they are used in industry today. This will be done with lectures and labs related to each of the respective components. (F,Sp)

**METS140 Rigging 3**

**Prerequisite:** Minimum 2.0 in METS100 (previously MFGM100) or concurrently

This course covers uses and strengths of ropes, chains, block and tackles, and the construction and erection of gin poles, with a study of rope knots used in rigging and cranes. Safe working strength of slings, hooks, sheaves, ropes and chains, and the use of personal safety equipment will be covered. (F,Sp,Su)

**METS170 Special Topics in Mechanical Systems .25-8**

**Prerequisite:** Determined by Unit Section

This course offers students the opportunity to learn new or advanced skills in Manufacturing and other related topics. Specific content may vary with each offering but will be related to the Manufacturing Program and profession. (F,Sp,Su)

**METS175 Fork Lift Truck Driver Training .5**

**Prerequisite:** None

Students will learn the basic safety guidelines and basic operational procedures of industrial fork trucks. The instruction will combine lecture, written materials and hands-on operation of a fork truck. (F,Sp,Su)

**METS210 Lubrication and Bearings 4**

**Prerequisite:** Minimum 2.0 in METS100 (previously MFGM100) or concurrently

This course covers instruction in advanced theory and practice of machine tool repair including applying lubrication principles, performing bearing maintenance, laser alignment, ultrasonic measurement, infrared, vibration analysis, and more. (F,Sp)

**METS230 Electrohydraulics 4**

**Prerequisite:** Minimum 2.0 in METS130 (previously MFGM175) or concurrently

Advanced Industrial Hydraulics builds upon the theory of fluid power and circuits covering electrohydraulic systems and components, proper voltage, electrical feedback and various other hydraulic powered systems as they are used in industry today. This will be done with lectures and labs related to each of the respective components. (F,Sp)

**METS290 Mechanical Systems Internship 3**

**Prerequisite:** Department Approval

**Recommended:** 2.5 GPA or greater

This course provides Manufacturing students with practical work experience in industry. Students work for an employer in a supervised environment which provides an opportunity to apply knowledge and skills learned in the classroom and lab to an actual job situation. (F,Sp,Su)

**METS295 Mechanical Systems Project Lab 1-4**

**Prerequisite:** Department Approval

An advanced course for students wishing to do in-depth work in the mechanical systems/machine maintenance area or to develop trade-entry skills. Students select projects compatible with their individual fields of work. (Approval may be given to take this course twice for a maximum of eight credits.) (F,Sp,Su)

**MGMT - Management**

**MGMT101 Management Special Topics 1-3**

**Prerequisite:** None

This course explores current issues, knowledge, skills, attitudes and/or behaviors relevant to the professional development of managers and management students. Specific topics will vary by semester; check semester schedule book for topics to be offered. (F,Sp)

**MGMT150 Managing Customer Relations 3**

**Prerequisite:** None

This course is designed to help customer service workers and managers explore the dynamics of customer service and customer relations. The course includes strategies for providing for customers needs, behavioral skills and knowledge for effective customer service, verbal and non-verbal skills for effective customer communication, and techniques for measuring success. Focus is on the dynamics of building successful relationships. (F,Sp)

**MGMT200 Creative Thinking for Business 3**

**Prerequisite:** Reading Level 4

**Recommended:** Have taken at least two or more BUSN, MGMT or business experience

This course takes an experiential approach to helping students understand and explore elements of the creative process. It is designed to develop skills, eliminate barriers, and allow students to apply thinking skills to business situations. (F,Sp)

**MGMT223 Developing Supervisory Skills 3**

**Prerequisite:** Reading Level 4

This course presents supervisory principles and practices for first-line supervisors. Emphasis is on developing interpersonal and first line supervisory skills. Managerial functions are introduced, along with policies, decision-making, and the responsibilities of supervisors for overall work performance and employee development and evaluation. (F,Sp)

**MGMT224 Human Resource Management 3**

**Prerequisite:** Reading Level 4

This is a survey course which examines the role of human resources management and its contribution to the total organizational effort. Emphasis will be placed on the evolution of human resource management, recruitment and selection, improving performance, compensation and incentives, safety and health, employee-management relations, and current legislation. (F,Sp)

**MGMT225 Principles of Management 3**

**Prerequisite:** Reading Level 5

Designed to reflect the dynamics of our changing world, this course covers such topics as management functions/processes, quality, ethics, global issues and the challenges and opportunities of diversity. Emphasis is on theories and skills of the middle management and organizational level. (F,Sp)

**MGMT227 Training and Development for Business 3**

**Prerequisite:** None

This course is designed to cover all aspects of training in the business environment. Participants focus on assessing training needs, identifying training barriers, curriculum design, instructional techniques, evaluation, and adult learning theory. (Sp)

**MGMT228 Organizational Behavior 3**

**Prerequisite:** Reading Level 5

**Recommended:** MGMT223 or MGMT224 or MGMT225

Examines the dynamics of relationships at work. Integrates and applies behavioral and social science knowledge using a systems approach, and focuses on the nature of both people and organizations. Students will study individual and group behavior and will have opportunities to work on skills necessary for successful interaction in organizations. (F,Sp)

**MGMT229 Compensation Management** 3  
**Prerequisite:** Minimum 1.5 in MGMT224  
**Recommended:** LABR204  
 Students will gain a practical understanding of the principles and applications of compensation management. Students will study the theories, behaviors, and legal constraints affecting compensation practices, including job analysis, job evaluation methodologies, labor market surveys, variable pay approaches, and the administration of legally mandated and voluntary employee benefit programs. (F)

**MGMT231 Team Development** 3  
**Prerequisite:** Reading Level 4  
 This course defines and examines team building, team leadership, and self-managed teams in the context of today's workplace. Students develop skills in writing team mission and vision statements, team goals, and action assignments. Chartering, problem solving, decision-making, conducting effective meetings, work sessions, negotiating, and presenting are also explored. (F,Sp)

**MGMT234 Diversity in the Workplace** 3  
**Prerequisite:** Reading Level 5  
 This course explores cultural, gender/sexual, physical, and other minority experiences in the workplace and in the world. The management of human resources will be examined from a domestic and global perspective. Emphasis is on helping the majority group and the minority group become aware of the other's opinions, feelings, and perspectives. Instruction takes an experiential, awareness training approach. (F,Sp,Su)

**MGMT235 Independent Study in Management** 1-3  
**Prerequisite:** Department Approval  
 Students design and implement special research projects to apply personal and professional experience to an academic area of interest, linking theory with practice. Students meet with coordinator and work independently towards completion of project report. Students should plan a minimum 16 hours per credit and ten pages of report per credit. (F,Sp)

**MGMT237 Managing for Continual Improvement** 3  
**Prerequisite:** Reading Level 4  
 This course provides an introduction to concepts of quality, continual improvement, systems thinking, and other new management practices. The history of the quality movement including key thinkers/leaders is covered. Methods for continual improvement teams, learning organizations, and new ways of thinking and leading are explored. (Sp)

**MGMT239 Time and Stress Management** 3  
**Prerequisite:** Reading Level 4  
 This course explores the relationship between time and stress management: stress is the causal factor for many of our physical and psychological problems. Methods for positively harnessing its energy are suggested, and techniques and strategies for using time and energy wisely are offered. Emphasis is placed on creating action plans and initiating corrective actions. (Sp)

**MGMT280 Management Internship** 3  
**Prerequisite:** Department Approval  
**Recommended:** Have completed a minimum of 30 Credits  
 This course provides an opportunity to apply classroom learning to a career-related position by working a minimum of 160 hours at an approved work site. A student may do an internship at his/her own job only if the duties are new, management related, and provide an appropriate learning situation. (F,Sp)

**MGMT290 TIME Series Topics** 1-3  
**Prerequisite:** None  
 Offers timely business topics in a flexible and innovative format which provides relevant and challenging learning experiences for educational and professional development. Specific topics vary by semester; see semester schedule book. Course descriptions for each topic may be viewed by going to the current semester syllabus at the LCC website. (F,Sp,Su)

**MGMT300 Leading for Possibility** 3  
**Prerequisite:** None  
**Recommended:** Have taken previous MGMT courses, and/or are enrolled in the Northwood 3+1 Program, or have management work experience  
 Provides an overview of the changing roles of leadership within an organization and lays a foundation for exploration of the emerging roles and functions of leadership in today's changing environments. Theories and skills are applied to a variety of organizational settings. (F)

**MGMT304 Organizational Development** 3  
**Prerequisite:** None  
**Recommended:** Have taken previous MGMT courses, and/or are enrolled in the Northwood 3+1 Program, or have management work experience  
 Based on the assumption that all managers must recognize, plan for, and manage organizational change, this course examines the process of improving organization effectiveness by means of a systematic change program. Students practice identifying problems, selecting appropriate interventions, building action plans, and developing facilitator skills. (F,Sp)

**MGMT329 Advanced Management Communication** 3  
**Prerequisite:** Minimum 2.0 in (WRIT117 or WRIT121)  
**Recommended:** Have taken previous MGMT courses, and/or are enrolled in the Northwood 3+1 Program, or have management work experience  
 This is an advanced course in communication skills for business, both oral and written. It includes components of listening, non-verbal signals, oral presentations, facilitation, interviewing techniques, meeting management, business reports, memos, letters, email, and resumes. This class is both informational and experiential. (F,Sp)

**MGMT332 Ethics: Assumptions for the Future** 3  
**Prerequisite:** None  
**Recommended:** Have taken previous MGMT courses, and/or are enrolled in the Northwood 3+1 Program, or have management work experience  
 This course is designed to sensitize participants to the impact of ethics on decision-making. Participants will examine values and assumptions, both personal and organizational, which influence management and leadership style. Exploration of the importance of intention and right relationships in strategy and the creation of the future workplace is also included. (F,Sp)

**MGMT335 Managerial Statistics** 3  
**Prerequisite:** Minimum 2.0 in (MATH112 or MATH115 or MATH117)  
**Recommended:** Have taken previous MGMT courses, and/or are enrolled in the Northwood 3+1 Program, or have management work experience  
 This course covers applications of statistical tools and techniques to improve managerial decision-making processes. It includes basic descriptive statistics and graphing techniques, probability, probability distributions, hypothesis testing, analysis of variance, regression analysis, time series and forecasting models. (F,Sp)



- MGMT337 Human Resource Management Skills** 3  
**Prerequisite:** None  
**Recommended:** Have taken previous MGMT courses, and/or are enrolled in the Northwood 3+1 Program, or have management work experience  
 Human resource skills are developed at an advanced level. Workplace relationships between employee, manager, human resource department, and the organization are analyzed in areas of leadership and motivation, legal compliance, performance planning and evaluation, union-management dynamics, and recognition and reward practices. (F,Sp)
- MGMT338 Current Topics in Management** 3  
**Prerequisite:** None  
**Recommended:** Have taken previous MGMT courses, and/or are enrolled in the Northwood 3+1 Program, or have management work experience  
 Study of specific current topics and issues that affect managerial/leadership decisions. Students explore internal and external constraints on actions. External factors considered include legal, social, educational, and political. Internal factors include shareholders, employees, and customers. (F)
- MGMT339 Management Style/Corporate Strategies** 3  
**Prerequisite:** None  
 Numerous current materials relating to management styles and corporation strategies in Japan will acquaint the student with management as practiced in Japan. Alternative managerial styles are presented. (This course is offered only as part of the Japan Adventure Program.) (F,Su)
- MGMT345 Context and Transformation** 3  
**Prerequisite:** None  
**Recommended:** Have taken at least three or more BUSN or MGMT courses, or are enrolled in the Northwood 3+1 Program, or have several years business experience  
 This course is designed to help people of vision and courage examine the beliefs, principles, and behaviors which drive organizations. In seminar format, participants investigate possibilities for new ways of thinking together, focusing on emerging perspectives of ourselves, our organizations, our communities, and our world. Students explore the growing importance of environment in creating a context for transformation. (Sp)
- MGMT346 Managerial Finance** 3  
**Prerequisite:** None  
**Recommended:** Have taken previous MGMT courses, and/or are enrolled in the Northwood 3+1 Program, or have management work experience  
 This course is designed to provide necessary and practical skills to deal with financial matters and communicate with people who specialize in finance. Topics covered include basic financial analysis, short-term and long-term financing, financial planning, and managing the finance function. (F,Sp)
- MGMT348 Strategic Management and Policy** 3  
**Prerequisite:** Minimum 1.0 in (MGMT225 or MGMT300) and any MGMT course between MGMT 304 - 346 (inclusive)  
 This course synthesizes learning from the areas of management and marketing to gain an overall organizational perspective which is applied to strategic plan formulation and implementation for the whole organization. The process involves pursuing organizational mission while managing the relationship of the organization to its environment. (F)

**MILS - Military Science**

- MILS110 Army Leadership and Officer Development** 1  
**Prerequisite:** None  
 This course addresses duties and responsibilities of the Army officer and noncommissioned officer, and organizational structure of the Army, Army Reserve, and National Guard. Students will also explore the Army's role in joint operations, Army values, leadership, customs and traditions. (F,Sp)

- MILS120 Army Leadership & Problem Solving** 1  
**Prerequisite:** None  
 Topics include: fundamentals of basic Army leadership, military problem solving process, military briefing and writing skills, and goal setting and time management. Students are also introduced to the Army's developmental counseling program. (F,Sp)

- MILS210 Values and Ethics of Army Leaders** 1  
**Prerequisite:** None  
 Students will examine military case studies, critical dilemmas in combat situations and the ethical decisions Army leaders make to ensure mission success to develop an understanding of how to improve Army organizations and soldier performance. The Army's leadership development program, battle drills, land navigation, and combat decision making are also addressed. (F,Sp)

- MILS220 Challenges in Army Leadership** 1  
**Prerequisite:** None  
 This course uses military case studies to study challenging situations for military leaders and units, and understand how to apply sound ethical leadership practices to implement decisions. Students will also develop an understanding of basic military small unit tactics. (F,Sp)

**MKTG - Marketing**

- MKTG100 Current Issues in Business** 3  
**Prerequisite:** Reading Level 5  
 This is an introductory course designed to enhance a student's occupational preparedness and competence by promoting a better understanding of the competitive enterprise system. Classroom instruction will be combined with relevant marketing projects and professional community involvement to give students a solid foundation of marketing knowledge and managerial "know-how." (F,Sp)

- MKTG101 Marketing Special Topics** 1-3  
**Prerequisite:** None  
 This course explores recently identified current issues, knowledge, skills, attitudes and/or behaviors relevant to the professional development of professionals in the marketing field and students of marketing. (F,Sp,Su)

- MKTG119 Marketing/Managing Your Profess Image** 3  
**Prerequisite:** None  
 This course is a complete guide for everything people and their companies need to know to do the right thing at the right time in every business situation. Students will understand the importance of a professional image as it relates to business success and will develop a personal image development plan. (F,Sp)

<b>MKTG120 Sales</b>	3	<b>MKTG210 Marketing on the Internet</b>	3
<b>Prerequisite:</b> None		<b>Prerequisite:</b> None	
This course presents the fundamentals of selling. Topics include the basics of sales, motivation, and human relations. The course is designed so that students will not only learn about selling, but to be able to do it. (F,Sp)		<b>Recommended:</b> MKTG200 and basic understanding of computers and their use on the Internet	
		This course will explore the impact of information technology on the practice of marketing. Course content focuses on the internet, its culture and procedures from a marketing perspective, and will include using the internet for customer contact and customer service. This class uses extensive hands-on activities. (F,Sp)	
<b>MKTG122 Field Sales Internship</b>	3	<b>MKTG221 Consumer Behavior</b>	2
<b>Prerequisite:</b> Department Approval		<b>Prerequisite:</b> None	
<b>Recommended:</b> Have completed a minimum of 30 Credits		Covers the basic perspectives involved in consumer motivation and decision-making. Students will investigate relevant variables that shape consumer actions and concepts that integrate the study of consumer behavior with the practice of marketing. (F)	
This course provides an opportunity to apply classroom learning to a career-related position by working a minimum of 160 hours at an approved work site. A student may do an internship at his/her own job only if the duties are new, sales related, and provide an appropriate learning situation. (F,Sp,Su)		<b>MKTG229 Public Relations</b>	2
		<b>Prerequisite:</b> None	
<b>MKTG130 Retailing</b>	3	Provides an introduction to principles involved in creating and maintaining good public relations. Techniques for developing improved employer-employee relations, customer relations, and the total public relations effort will be discussed and applied. (F,Sp)	
<b>Prerequisite:</b> None		<b>MKTG231 Independent Study in Marketing</b>	1-3
Students will gain understanding of activities and strategies used in selling goods to ultimate consumers. The course develops an awareness of problems facing retailers and explores feasible solutions. Career opportunities in retailing are examined. (F,Sp)		<b>Prerequisite:</b> Department Approval	
<b>MKTG131 Merchandising</b>	2	Advanced marketing students design, implement, and draw conclusions relevant to a marketing project in a specific area of interest in marketing. Minimum of 16 hours of work per credit is required. (F,Sp,Su)	
<b>Prerequisite:</b> None		<b>MKTG235 Marketing Internship</b>	3
This course covers functions and policies of: what, when, where, how much, how to, and from whom to buy. The course provides introduction to merchandising, merchandise management, store management and operations, how to evaluate and set up effective controls, and new trends in merchandising. Career opportunities are also explored. (Sp)		<b>Prerequisite:</b> Department Approval	
<b>MKTG140 Introduction to Advertising</b>	3	<b>Recommended:</b> Have completed a minimum of 30 Credits	
<b>Prerequisite:</b> None		This course provides an opportunity to apply classroom learning to a career-related position by working a minimum of 160 hours at an approved work site. A student may do an internship at his/her own job only if the duties are new, marketing related, and provide an appropriate learning situation. (F,Sp,Su)	
Methods and techniques used in modern advertising. Information on the entire advertising function. Preparation of an advertising campaign will be required to facilitate hands-on understanding of the component parts which include marketing review, marketing plan, creative strategy, and media selection. (F,Sp)			
<b>MKTG200 Principles of Marketing</b>	3		
<b>Prerequisite:</b> Reading Level 5			
<b>Recommended:</b> BUSN118			
Designed to define marketing, develop an understanding of the marketing concept and functions, and generally investigate the field of marketing. Will cover the marketing environment; identifying consumer needs; examining product, price, promotion; and distribution strategies within our society. Provides a basic marketing understanding with practical applications. (F,Sp,Su)			
<b>MKTG202 Managerial Marketing</b>	3		
<b>Prerequisite:</b> Minimum 1.0 in MKTG200			
<b>Recommended:</b> MKTG204 and Second Year Student			
The course focuses on the solution of marketing problems through case analysis. It relates marketing to the total enterprise by analyzing problems, and suggesting approaches to business decision-making. Particular attention is paid to the elements of the marketing mix and how marketing management deals with these variables. (Sp)			
<b>MKTG204 Marketing Research</b>	3		
<b>Prerequisite:</b> Minimum 1.0 in MKTG200			
Types of data, sampling, data collection, analysis, interpretation, and applications of marketing research. A practical managerial approach - not a statistical or mathematical orientation. Students will design and execute a marketing research project. (F)			
		<b>MTEC - Media Technology</b>	
		<b>MTEC110 Intro to Broadcast &amp; Electronic Media</b>	4
		<b>Prerequisite:</b> Reading Level 5 and Writing Level 6	
		This is an introductory survey course which examines various electronic media industries and the historical, technological, regulatory, economic, programming, and societal contexts in which they exist. (F,Sp)	
		<b>MTEC120 Audio Production I</b>	4
		<b>Prerequisite:</b> Reading Level 5 and Writing Level 6	
		<b>Recommended:</b> Basic computer skills	
		A beginning course which covers the basics of audio theory and production techniques. Included are topics in microphone selection and use, analog and digital audio formats, analog and digital audio editing, interconnection and signal flow, loudspeakers, and audio mixing. This class provides the foundational theory for the other classes in the audio series, including production, recording, and sound reinforcement. (F,Sp,Su)	
		<b>MTEC121 Audio Recording I</b>	4
		<b>Prerequisite:</b> Minimum 2.0 in MTEC120	
		<b>Recommended:</b> Basic computer skills and MTEC220	
		A beginning course in audio recording that covers the basic principles of multitrack recording, both studio and remote. Emphasis is placed on microphone selection and placement, use of mixing consoles, and multi-track recorders for the recording session. (F,Sp)	

**MTEC122 Sound Reinforcement** 4**Prerequisite:** Minimum 2.0 in MTEC120

This is a first course in sound reinforcement. Students learn to design and set-up various reinforcement systems. Included are front-of-house, amplifiers, speakers, monitors, computer-controlled wireless, and the use of chain motors to suspend sound support systems. (Sp)

**MTEC130 Radio Production I** 4**Prerequisite:** Minimum 2.0 in MTEC120 or concurrently

Survey of the radio broadcast industry including careers, qualifications, responsibilities, and station operation. Introduces radio studio production and on-air presentations. This course also includes performance exercises related to commercial production news and sports broadcasting. (F,Sp,Su)

**MTEC140 Desktop Video Production** 4**Prerequisite:** Reading Level 5 and Writing Level 6

This course instructs students on the process of using digital video production equipment to create desktop media projects. Using pre-produced and self-produced media, the student will create several short-form projects. Classroom exercises include instruction in scriptwriting, storyboarding the production, non-linear audio and video editing and importing desktop graphics. (F,Sp)

**MTEC150 TV Production I** 4**Prerequisite:** Minimum 2.0 in MTEC140 or concurrently and Reading Level 5 and Writing Level 6

This course places special emphasis on the components of effective visual communication. Pre-production processes related to program development, scriptwriting, storyboarding, lighting, and floor plot designs are emphasized. An introduction to television production processes is included in classroom activities. Class sessions contain instructional and performance exercises. (F,Sp)

**MTEC152 Video Production Techniques** 4**Prerequisite:** Minimum 2.0 in (FILM118 or MTEC140 or MTEC150)

Video Production Techniques is designed as an introductory experience to the process of single camera video production. This course will also provide the student with extensive experiences in linear videotape editing. Class sessions will contain instructional and performance exercises which are practical applications of the course content. (F,Sp)

**MTEC153 Video Post-Production Technqs** 4**Prerequisite:** Minimum 2.0 in (MTEC140 or FILM118)**Recommended:** (MTEC152 or FILM226) or concurrently

Video Post-Production Techniques is designed to provide the student with an extensive experience in non-linear video post-production technologies. Learning activities within and outside the classroom are designed to provide a solid technical and creative foundation in video editing procedures. (F,Sp)

**MTEC200 Employment Issues in Media** 1**Prerequisite:** Reading Level 5 and Writing Level 6

This course will develop an individual's understanding of media industry issues particularly as they relate to organizational and self-employment. Class sessions and assignments contain practical exercises aimed at developing the individual's employability skills. MTEC majors will enroll in this course over a three semester sequence to complete all learning outcomes. (F,Sp)

**MTEC220 Audio Production II** 4**Prerequisite:** Minimum 2.0 in MTEC120**Recommended:** Basic computer skills

An advanced audio production course providing audio theory and production practice. Topics include tape editing of musical material, use of audio effects in production, additional production mixing, and audio post-production for video. Students learn to edit and mix using ProTools. An extensive survey of the audio production industry is included. (F,Sp)

**MTEC221 Audio Recording II** 4**Prerequisite:** Minimum 2.5 in MTEC121**Recommended:** Basic computer skills

A second course in audio recording that covers advanced techniques used in multitrack studio recording. Emphasis is on use of the multitrack studio and signal processing equipment for multitrack mixdown as well as advanced location recording techniques. (Sp)

**MTEC223 Sound Reinforcement Practicum** 2**Prerequisite:** Minimum 2.5 in MTEC122 and Department Approval

A hands-on course that permits students to apply the theory and practice acquired in MTEC122 to a large-scale practical project. The Spring class offering provides sound reinforcement experiences for local musical theatre. The Summer section provides concert sound reinforcement for bands playing at Riverfront Park during July 4th festivities. (Su)

**MTEC230 Radio Production II** 4**Prerequisite:** Minimum 2.0 in MTEC130**Recommended:** Basic computer skills

This course emphasizes advanced training in studio and remote-production techniques. Emphasis is placed on writing, producing, and performing for commercials, news, and sports programs. Students will also be exposed to foundational concepts in radio programming and marketing. (F,Sp)

**MTEC232 Radio Workshop** 2**Prerequisite:** Minimum 2.0 in MTEC130 and Department Approval**Recommended:** Basic public speaking skills or SPCH120

This course provides an opportunity for practical experience through access to the campus radio facility. Students will work in a variety of station staff positions. Emphasis will be placed on developing media of a professional caliber that students can later use as portfolio or resume materials. (F,Sp,Su)

**MTEC240 Script and Copywriting for Media** 3**Prerequisite:** Minimum 2.0 in (MTEC110 and WRIT121)**Recommended:** Basic computer skills

This course will help the student develop fundamental writing skills used in preparing script materials for electronic media. Emphasis is placed on practical copywriting techniques applicable to radio and television advertising, promotion, public service and news. (Sp)

**MTEC243 Ethics and Social Impact of Media** 3**Prerequisite:** Minimum 2.0 in (MTEC110 and WRIT121)**Recommended:** Basic computer skills

Ethics/Social Impact of Media explores the effects of the mass media on American culture and society. Topics such as privacy, censorship, violence, and portrayals of minorities and women are discussed. These discussions take place within an ethical reasoning framework. (F,Sp,Su)

- MTEC250 Advanced Video/TV/Production** 4  
**Prerequisite:** Minimum 2.0 in MTEC150  
**Recommended:** Basic computer skills and (MTEC152 and MTEC153)  
 An advanced production course focusing on the development of the technical and creative skills necessary to direct the work of a studio production team. Production assignments are modeled after activities found in broadcast production environments. Additional academic exercises include interpretation and translation of script ideas into effective video programming. (Sp)
- MTEC252 Lighting for Television and Video** 3  
**Prerequisite:** Minimum 2.0 in (FILM118 or MTEC150 or THEA114) and Reading Level 5 and Writing Level 6  
**Recommended:** MTEC152  
 An advanced instructional seminar on lighting techniques for video and television production. Special emphasis is placed on developing creative and technical lighting approaches applicable to a broad range of program subjects. In-class examples and assignments are used for developing individual lighting techniques. (Sp)
- MTEC254 Television and Video Graphics** 3  
**Prerequisite:** Minimum 2.0 in (FILM118 or MTEC140)  
**Recommended:** Basic computer skills  
 This course is designed to provide the student with an introductory experience to the process of electronic graphic design for television, video, and multimedia production. Electronic Presentation Graphics places emphasis on learning the basics of several different types of graphic software, as well as developing the student's visual design capabilities in support of both television and video communication. (Sp)
- MTEC255 Video Workshop** 2  
**Prerequisite:** Department Approval  
**Recommended:** Basic computer skills  
 This course provides guided laboratory and practical production experience in the creation of professional video programming. Projects will include opportunities to work in a variety of production and post-production positions. Emphasis will be placed on developing course materials of a professional caliber that students can later use as portfolio or resume materials. (F,Sp,Su)
- MTEC285 Media Portfolio** 2  
**Prerequisite:** Department Approval  
**Restriction:** Media Technology Majors  
 The student will assemble a portfolio under faculty supervision that represents the student's attainment of program outcomes and that can also serve as a tool for the purpose of securing employment or acceptance into a four-year school. This course is intended to be a final course in Media Technology. (Sp)
- MTEC290 Guided Independent Study** 1-4  
**Prerequisite:** Minimum 2.0 in (MTEC110 and MTEC120 and MTEC140) and Department Approval  
**Restriction:** Media Technology Majors  
**Recommended:** 75% of the way through Media Technology Program  
 This course provides an opportunity for self-directed learners to explore topics of particular interest more thoroughly. Students will meet intermittently throughout the semester with an assigned faculty member for guidance and evaluation of progress. A proposal detailing the area of independent investigation must be submitted by the student prior to registration. (F,Sp,Su)

- MTEC295 Media Practicum** 3  
**Prerequisite:** Minimum 2.0 in (MTEC110 and MTEC120 and MTEC140) and Department Approval  
**Restriction:** Media Technology Majors  
**Recommended:** 75% of the way through Media Technology Program  
 This course provides an opportunity to gain practical production experience in the media. Students are assigned to work on various audio, video, radio, and television projects within the Media Services Department. Faculty guidance and evaluation are an integral part of the experience. Practicum is intended only for advanced media technology students. (F,Sp,Su)
- MTEC296 Media Internship** 3  
**Prerequisite:** Minimum 2.0 in (MTEC110 and MTEC120 and MTEC140) and Department Approval  
**Restriction:** Media Technology Majors  
**Recommended:** 75% of the way through Media Technology Program  
 This course provides an opportunity for students to work in external media settings under professional supervision. Students work closely with faculty in arranging and evaluating the workplace experience. Interview results determine intern placement. The internship is intended only for media technology majors who have completed at least 75 percent of their academic program. (F,Sp,Su)
- MTEC298 Special Projects** 1-4  
**Prerequisite:** Minimum 2.0 in (MTEC110 and MTEC120 and MTEC140) and Department Approval  
**Restriction:** Media Technology Majors  
**Recommended:** 75% of the way through Media Technology Program  
 This course provides an opportunity for a group of learners to become involved in a common project that will allow each to develop additional skills or to hone present skills. Availability of academically appropriate projects and student interest determines the nature of the experience. (F,Sp,Su)

### MUSC - Music

- MUSC101 Lanswingers Vocal Jazz Ensemble** 1  
**Prerequisite:** Department Approval  
**Recommended:** Music reading skills  
 A select vocal ensemble specializing in jazz and contemporary music for mixed voices. Artistic and creative vocal skills, improvisation and interpretation are developed through ensemble, small group and solo performance. Participation in two to four concerts per semester is required. May be taken up to six times for credit. (F,Sp)
- MUSC102 Women's Chorus** 1  
**Prerequisite:** None  
**Recommended:** Music reading skills  
 An all-female vocal ensemble comprised of students and community members focusing on diverse repertoires of music for women's voices. General musicianship and training in choral singing are developed. Participation in two to four concerts per semester is required. May be taken up to six times for credit. (F,Sp)
- MUSC104 LCC Satin Blues Ensemble** 1  
**Prerequisite:** Department Approval  
**Recommended:** Music reading skills  
 A select female vocal ensemble focusing upon jazz and contemporary music for women's voices. Artistic and creative vocal skills and improvisation are developed through ensemble, small group and solo performance. Participation in two to four concerts per semester is required. May be taken up to six times for credit. (F,Sp)

**MUSC106 Private Music Lesson** 2**Prerequisite:** Department Approval

Concentrated one-to-one training in vocal/instrumental skills, techniques and repertory available only to the following students: Music majors pursuing secondary performance venues, provisional applicants to the LCC Music Program, qualifying dual-enrolled high school students intending to enter the LCC Music Program and currently enrolled LCC Theater majors. (F,Sp,Su)

**MUSC108 Concert Choir** 1**Prerequisite:** Department Approval**Recommended:** Music reading skills

A larger student and community member mixed voice choir exploring diverse styles, genres, repertoires and cultural traditions spanning the choral experience. General musicianship and training in choral singing are developed. Participation in two to four concerts per semester is required. May be taken up to six times for credit. (F,Sp)

**MUSC119 Lansing Concert Band** 1**Prerequisite:** Department Approval

A community band serving as the official band of the City of Lansing. The group performs throughout the year and plays all styles of music but primarily concentrates on traditional concert band literature. Students are required to play in public performances of the band. May be taken up to six semesters for credit. (F,Sp,Su)

**MUSC121 Percussion Ensemble** 1**Prerequisite:** Department Approval**Recommended:** Music reading skills

The Percussion Ensemble rehearses and performs works of various styles, genres, cultural traditions and repertoires. Percussion techniques and musical skills are developed through ensemble, small group and solo performances. Participation in two to four concerts per semester is required. May be taken up to six times for credit. (F,Sp)

**MUSC122 Guitar Ensemble** 1**Prerequisite:** Department Approval**Recommended:** Music reading skills

Explores guitar music of diverse styles (classical, jazz and contemporary) for large group, small combo and solo performance on acoustic, electric and bass instruments. Other instrumentalists/vocalists may join to expand the ensemble. Participation in two to four concerts per semester is required. May be taken up to six times for credit. (F,Sp)

**MUSC123 Jazz Ensemble** 1**Prerequisite:** Department Approval**Recommended:** Music reading skills

The Jazz Ensemble rehearses and performs pieces of diverse styles from various periods in jazz history. Musical, interpretative and improvisational skills are developed through ensemble, small combo and solo performances. Participation in two to four concerts per semester is required. May be taken up to six times for credit. (F,Sp)

**MUSC138 Keyboard Harmony I** 2**Prerequisite:** Music Major Audition and Reading Level 5 and Writing Level 4

The course introduces fundamental keyboard skills primarily for music majors. Students develop facility in performing scales, arpeggios, intervals, chords, inversions, and diatonic harmonic progressions in all major and some minor keys. Pieces in two- to four-part textures are performed. Harmonizing melodies, simple transposition and reading lead sheets are introduced. (F,Sp)

**MUSC139 Keyboard Harmony II****Prerequisite:** Minimum 2.0 in MUSC138

Building upon skills gained in MUSC 138, students increase their technical facility and keyboard harmonization skills, including more complex harmonic progressions and modulations in various textures. Exercises and short pieces are performed in all keys. Transposition, figured bass, reading of open scores, and basic improvisation are also covered. (Sp)

**MUSC143 Beginning Piano I - Summer** 1**Prerequisite:** None

Course assumes no prior music experience or knowledge. Students are introduced to the rudiments of playing piano. Staff notation, rhythmic notation, correct fingering/hand positions, major scales, and primary chords are introduced. Simple two hand pieces are performed. May be taken up to three semesters for credit. (Su)

**MUSC144 Beginning Piano I** 2**Prerequisite:** None

Course assumes no prior music experience or knowledge. Students are introduced to the rudiments of playing piano. Staff notation, rhythmic notation, correct fingering/hand positions, major scales, and primary chords are introduced. Simple two hand pieces are performed. May be taken up to three semesters for credit. (F,Sp)

**MUSC145 Beginning Piano II** 2**Prerequisite:** Minimum 2.0 in MUSC144

This course is designed to take the student up to an intermediate level of playing. Rhythmic subdivisions, more complex fingering, and new major and minor keys are introduced. Single two-hand pieces are performed. May be taken up to three semesters for credit. (F,Sp)

**MUSC155 Class Voice Commercial I** 2**Prerequisite:** None

Beginning course designed to introduce students to vocal techniques and performance skills required in singing/performing commercial music. Breathing, posture, diction, tone production, interpretative skills, and microphone techniques are presented and developed. Students are required to attend live performances. May be taken up to three semesters for credit. (F,Sp)

**MUSC156 Class Voice Commercial II** 2**Prerequisite:** Minimum 2.0 in MUSC155

The advanced course in a series of two, this course will refine techniques introduced in MUSC155. Students will prepare a final public performance. Students are required to attend live performances. May be taken up to three semesters for credit. (F,Sp)

**MUSC157 Applied Lesson I** 2**Prerequisite:** Music Major Audition

Concentrated one-to-one training in vocal/instrumental skills, techniques and repertory for Music majors only. Students must perform in Music Studio convocations and attend public concert events. Progression to the next level of Applied Lessons is by successfully passing a jury performance adjudicated by a Music faculty panel. (F,Sp)

**MUSC158 Applied Lesson II** 2**Prerequisite:** Minimum 2.0 in MUSC157 or Music Major Audition

Concentrated one-to-one training in vocal/instrumental skills, techniques and repertory for Music majors only. Students must perform in Music Studio convocations and attend public concert events. Progression to the next level of Applied Lessons is by successfully passing a jury performance adjudicated by a Music faculty panel. (F,Sp)

- MUSC163 Aural Skills I** 1  
**Prerequisite:** None  
**Co-requisite Course(s):** MUSC193  
 This course allows students to develop their aural capacity through exercises in beginning melodic and rhythmic dictation. The ability to sing melodies on sight through the use of solfeggio will also be developed. This is the first of two courses in freshman aural skills. (F,Sp)
- MUSC164 Aural Skills II** 1  
**Prerequisite:** Minimum 2.0 in MUSC163  
**Co-requisite Course(s):** MUSC194  
 This course allows students to develop their aural skills through intermediate exercises in melodic and rhythmic dictation. The ability to sight-sing melodies through the use of solfeggio continue to be developed. This course is the second in a sequence of two freshman music major requirements. (F,Sp)
- MUSC168 Rudiments of Music** 2  
**Prerequisite:** None  
 This course introduces students and beginning musicians to the basics of reading and notating music. Fundamentals of rhythm, meter, pitch, intervals, scales, chords, keys and simple harmonic progressions are reviewed. Elements of music are explored through musical examples drawn from a variety of styles and genres. (F,Sp,Su)
- MUSC178 Beginning Diction for Singers** 2  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** Music reading skills  
 Singers are trained in the International Phonetic Alphabet, assisting them in the correct pronunciation of English and foreign languages as applied to vocal performance. Primary focus is on English and Italian IPA skills corresponding with appropriate song literatures. Secondary emphases may introduce French or German IPA skills. (F,Sp)
- MUSC181 Class Voice I - Summer** 1  
**Prerequisite:** None  
 The first in a series of two courses for group and individual work on varied song literature. Emphasis is placed on vocal techniques such as breathing, posture, diction, tone production, and stage presence. Students are required to attend live performances. May be taken up to three semesters for credit. (Su)
- MUSC182 Class Voice I** 2  
**Prerequisite:** None  
 The first in a series of two courses for group and individual work on varied song literature. Emphasis is placed on vocal techniques such as breathing, posture, diction, tone production, and stage presence. Students are required to attend live performances. May be taken up to three semesters for credit. (F,Sp)
- MUSC183 Class Voice II** 2  
**Prerequisite:** Minimum 2.0 in MUSC182  
 The advanced course in a series of two. This course will refine techniques, such as breathing, posture, diction, tone production, and stage presence, introduced in MUSC182. Students are required to attend live performances. May be taken up to three semesters for credit. (F,Sp)
- MUSC187 Class Guitar - Summer** 1  
**Prerequisite:** None  
 This course is for beginners and experienced players who desire note-reading skills. Folk, blues, and classical guitar traditions are presented using basic plectrum technique. Beginning chord theory is introduced. Students will provide their own guitar, and attend live performances. (Su)
- MUSC188 Class Guitar** 2  
**Prerequisite:** None  
 This course is for beginners and experienced players who desire note-reading skills. Folk, blues, and classical guitar traditions are presented using basic plectrum technique. Beginning chord theory is introduced. Students will provide their own guitar, and attend live performances. The course may be taken up to four semesters for credit. (F,Sp)
- MUSC193 Music Theory I** 4  
**Prerequisite:** Minimum 2.0 in (MUSC168 or Music Theory Placement Test) and Reading Level 5  
**Co-requisite Course(s):** MUSC163  
 First-semester freshman-level course in tonal harmony covering concepts and applications of scales, intervals, keys, rhythm, diatonic chords, inversions and basic part-writing for four voices. Harmonic progressions, cadence structures and simple forms are studied through both analysis and student composition. Introduces principles of counterpoint and jazz theory. (F,Sp)
- MUSC194 Music Theory II** 4  
**Prerequisite:** Minimum 2.0 in (MUSC193 or Music Theory Placement Test) and Reading Level 5  
**Co-requisite Course(s):** MUSC164  
 Second-semester freshman-level course in tonal harmony covering diatonic seventh chords, non-chord tones, secondary functions, modulations and larger musical forms. Focus on advancing students' skills in part-writing, analysis, score-reading and counterpoint. Concepts are applied through student composition in classical, jazz and/or popular styles. (F,Sp)
- MUSC197 Introduction to Music Technologies** 2  
**Prerequisite:** None  
**Recommended:** Familiarity with computers; music reading skills  
 Second-semester freshman-level course in tonal harmony covering diatonic seventh chords, non-chord tones, secondary functions, modulations and larger musical forms. Focus on advancing students' skills in part-writing, analysis, score-reading and counterpoint. Concepts are applied through student composition in classical, jazz and/or popular styles. (F,Sp,Su)
- MUSC199 Music Appreciation** 2  
**Prerequisite:** Reading Level 5 and Writing Level 4  
 Designed for non-music majors, this course develops well-informed, focused listening. Students are acquainted with representative composers, compositions, and musical characteristics of a variety of style periods from early music through 20th Century music. Students are required to attend live performances. (F,Sp,Su)
- MUSC200 Music Fundamentals for Element Teachers** 3  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** Music reading skills  
 This course addresses the cognitive and performance music skills necessary for early childhood, elementary and special education majors. Successful teaching methods for singing, movement, and focused listening will be presented along with skills on appropriate classroom instruments. MUSC200 may be taken as an elective. (F,Sp)
- MUSC219 Introduction to Music Therapy** 3  
**Prerequisite:** Reading Level 5 and Writing Level 4  
 An overview of the history, philosophy, and methodologies and practices of Music Therapy and the use of music in therapeutic aims of restoring, maintaining and improving both mental and physical health. Exploration and assessment of various clinical techniques and the disorders/patient populations they address. Off-campus field experiences required. (F,Sp)

**MUSC222 Techniques in Sacred Music****Prerequisite:** Reading Level 5**Recommended:** Music reading skills

Techniques and skills for the practice of sacred music, including: principles of conducting; effective organization and administration of quality programs; appraisal of pertinent resources; planning worship services; and, fundamentals of recruiting, marketing and budgeting. Repertoires and training methods for various vocal/instrumental ensembles and soloists/cantors will also be addressed. (Sp)

**MUSC230 Independent Study in Music**

1-2

**Prerequisite:** Department Approval

An opportunity for self-directed learners to explore topics related to, but not taught in the curriculum. Students spend at least two hours per week for each credit. A detailed proposal must be submitted by the student for approval by the Department and supervising instructor prior to registration. (F,Sp)

**MUSC233 Music Seminar**

1-4

**Prerequisite:** Department Approval

Student will be given the opportunity to attend master classes on various related topics or perform in a production on the main stage or comparable space. Limited to individuals who have been selected as cast members or approved for master class. (F,Sp,Su)

**MUSC237 Musical Theater Performance**

2

**Prerequisite:** Department Approval**Recommended:** Music reading skills

An introductory course for vocalists and actors emphasizing applying acting techniques to song performance. Students will explore music from a preselected range of musical theatre styles. Focus is on stage presence, movement, and advancing dramatic action through the song. The class concludes with a public performance. (F,Sp)

**MUSC240 World Music History I**

4

**Prerequisite:** Reading Level 5 and Writing Level 6

An historical and analytical survey of music and the ways civilizations understand music in addressing cultural issues. Characteristic genres, styles, composers and literature of Western art music from Antiquity through 1750 are studied with cross-cultural comparisons to non-Western musics of Asia, India, the Middle East, and the Americas. (F,Sp)

**MUSC241 World Music History II**

4

**Prerequisite:** Reading Level 5 and Writing Level 6

An historical, analytical and cultural survey of music from 1750 to the present. Characteristic genres, styles, composers and their musical expressions are studied regarding developments in Western art music, comparisons with non-Western musics (Africa, Asia, the Americas), and the emergence of world musics today. (F,Sp)

**MUSC246 History of Blues and Jazz**

2

**Prerequisite:** Reading Level 5

An overview of the emergence, development and relevance of two of America's most genuine musical artforms. Stylistic, cultural, and sociological investigations of such musics provide a mirror to the ever-changing popular American soundscape. Informed listening introduces: major creator/performers, genres, expressions, and reflections of an increasingly global and technological musical world. (F,Sp)

**MUSC247 History of Rock and Roll****Prerequisite:** Reading Level 5

Survey of the origins, elements, developments, and reflections of Rock and Roll from its roots in the 1920s to the present. Major trends and artists are considered in stylistic, social, commercial, and global perspectives. Informed listening and comparative analyses reveal complex issues continuously redefining Rock music and its cultural legacy. (F,Sp)

**MUSC253 Business of Music**

3

**Prerequisite:** Reading Level 4 and Writing Level 4

An introduction to the business aspects of the music industry. Areas covered include copyrights, contracts, trademarks, publishing, recording and record company operations, personal managers, booking agents, concert promotions, and unions. Students are required to attend live performances. (F,Sp)

**MUSC254 Band Management**

2

**Prerequisite:** Reading Level 4 and Writing Level 4

This course is designed to assist the professional musician or manager in creating or improving a performing band. All major aspects of band management are covered, including intra-band arrangements, contracts, negotiations, format and material choice, equipment, finances, promotion and sales, road management, and basic organizational information. Students are required to attend live performances. (F,Sp)

**MUSC257 Applied Lesson III**

2

**Prerequisite:** Minimum 2.0 in MUSC158 or Music Major Audition

Concentrated one-to-one training in vocal/instrumental skills, techniques and repertory for Music majors only. Students must perform in Music Studio convocations and attend public concert events. Progression to the next level of Applied Lessons is by successfully passing a jury performance adjudicated by a Music faculty panel. (F,Sp,Su)

**MUSC258 Applied Lesson IV**

2

**Prerequisite:** Minimum 2.0 in MUSC257 or Music Major Audition

Concentrated one-to-one training in vocal/instrumental skills, techniques and repertory for Music majors only. Students must perform in Music Studio convocations and attend public concert events. A final jury performance is adjudicated by a music faculty panel. (F,Sp,Su)

**MUSC263 Aural Skills III**

1

**Prerequisite:** Minimum 2.0 in MUSC164**Co-requisite Course(s):** MUSC293

This course is a continuation of the first year of aural skills training. The student will proceed to more advanced training in sight-singing, ear-training, and melodic, rhythmic and harmonic dictation. (F)

**MUSC270 Rock Guitar**

2

**Prerequisite:** None

A presentation on fundamental rhythm and lead guitar techniques and music theory concepts applicable to rock music from its rhythm and blues origin to the present, as well as other related popular styles. Student must provide own guitar. Students required to attend live performances. May be taken up to three semesters for credit. (F,Sp,Su)

**MUSC280 Private Composition**

1

**Prerequisite:** Department Approval

Private coaching/instruction for music majors, 40 minutes per week, in musical composition, giving attention and suggestion to melody, harmony, chord substitution, and formal design. Students are required to attend live performances. May be taken up to six semesters for credit. (F,Sp)

**MUSC293 Music Theory III** 4  
**Prerequisite:** Minimum 2.0 in MUSC194 and Reading Level 5  
**Co-requisite Course(s):** MUSC263  
 Sophomore-level course in advanced tonal and non-tonal harmonies preparing students for transfer to four-year programs or concluding studies in commercial music. Emphases on chromaticism and harmonic vocabularies of late 19th- and 20th-century musical styles including modality, serialism, pandiatonicism, aleatory music, and intermediate jazz theory. (F)

**MUSC298 Electronic and Computer Music** 3  
**Prerequisite:** Minimum 2.0 in MUSC197  
**Recommended:** Computer experience; Music reading skills  
 Students develop and create original musical compositions applying a variety of electronic and computer-based media. Projects include manipulating MIDI (Musical Instrument Digital Interface) data, digital audio effects processing, advanced sequencing, waveforms and basic properties of pitched sound, basic synthesis, editing and storage of synthesizer patches, digital music production, and spatialization. (F,Sp)

### NANO - Nanotechnology

**NANO130 Introduction to Nanotechnology** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6 and (Math Level 6 or MATH112 concurrently)  
**Recommended:** CHEM151  
 This course introduces the science of nanotechnology and its potential impact on manufacturing processes and customer products. Students will learn the science behind nanotechnology and will be exposed to the principles of the equipment used to study and manipulate matter at the nanometer scale. (F,Sp)

### NURS - Nursing

**NURS119 Special Topics in Nursing** .25-8  
**Prerequisite:** Determined by Unit Section  
 This course offers students the opportunity to learn new nursing skills and knowledge. Specific up-to-date content will vary with each seminar and will be related to the nursing profession. (F,Sp,Su)

**NURS150 Fundamentals in Nursing Care I & II** 9  
**Prerequisite:** Admission to Nursing Program and (Minimum 2.5 in (NURS200 or concurrently) and (BIOL202 or concurrently)) and Reading Level 5 and Writing Level 6  
 This course introduces students to the roles of the professional nurse and other members of the healthcare team. Healthcare concepts, including cultural, ethical, and legal issues are presented, with the aging process emphasized throughout. Nursing process is used as a framework for providing patient care in acute and long-term settings. (F,Sp)

**NURS151 Fundamentals in Nursing Care I** 5  
**Prerequisite:** Admission to Nursing Program and (Minimum 2.5 in (NURS200 or concurrently) and (BIOL202 or concurrently)) and Reading Level 5 and Writing Level 6  
 This course introduces students to the various roles of the professional nurse. Concepts related to healthcare delivery are presented, with a focus on the care of older adults. Nursing Process is presented as a framework for critical thinking and problem solving. Clinical experiences will be provided in local nursing homes. (F)

**NURS152 Fundamentals in Nursing Care II** 4  
**Prerequisite:** Minimum 2.5 in (NURS151 and NURS200 and BIOL202)  
 This course is a continuation of the concepts presented in NURS151. Topics include Altered Nutrition, Cancer, Pain, Perioperative Care, Vision and Hearing, and Ethics. Nursing Process is used as a framework for critical thinking and problem solving. Clinical experiences will be provided in hospitals. (Sp)

**NURS160 Acute Nursing Care** 6  
**Prerequisite:** Successful completion of 1st semester of the Full-time or Accelerated Nursing Programs or 3rd semester of the Part-time Nursing Program  
 Students are assisted in using the nursing process in the care of adults adapting to common acute health problems. Pathophysiology and nursing interventions affecting the cardiovascular, respiratory, endocrine, gastrointestinal, neurological, and musculoskeletal body systems are presented. Clinical in acute care hospital systems. (F,Sp)

**NURS165 Maternity Nursing Care** 5  
**Prerequisite:** Successful completion of 1st semester of the Full-time or Accelerated Nursing Programs or 2nd semester of the Part-time Nursing Program  
 Assessment and nursing care of the childbearing family is the focus of this course. Concepts of family, therapeutic communication, cultural diversity, and human sexuality are discussed. Basic needs and developmental tasks of early childhood through adolescence are included. Clinicals are in maternity units of hospitals and in community settings. (F,Sp,Su)

**NURS196 Long-term Care Nurse Intern** 8  
**Prerequisite:** Department Approval  
 Long-term Care Nurse Intern is a bridge course focusing on new LPN graduates to transition from graduate LPN to practicing nurse caring for long-term care residents. Acute and chronic conditions specific to the elderly are presented via lecture, case studies and clinical practicum integration, and build upon the student's previous knowledge. (F,Sp,Su)

**NURS200 Pharmacology-Nursing** 3  
**Prerequisite:** Minimum 2.5 in BIOL202 or concurrently  
 Drug classes are discussed in-depth as well as nursing responsibilities associated with medication administration. A pharmacology dosage calculation math lab is included. (F,Sp,Su)

**NURS210 LPN/Paramedic to RN Transition** 5  
**Prerequisite:** Department Approval and Reading Level 5 and Writing Level 6  
**Recommended:** Current work experience and current BLS and OSHA  
 The Transition Course is designed to assist the returning LPN, Paramedic, and Respiratory therapy student in the adjustment to the curriculum leading to an Associate Degree in Nursing. Roles, functions, and practice settings for the LPN/Paramedic/RT and Associate Degree Nurse will be compared and discussed. (Su)

**NURS260 Mental Health & Leadership Nursing Care** 5  
**Prerequisite:** Successful completion of 2nd semester of the Full-time or Accelerated Nursing Programs or 4th semester of the Part-time Nursing Program or 1st semester of the Fast Track Nursing Program  
**Recommended:** BIOL204  
 The student will plan care for clients with psychosocial and medical health problems with emphasis on therapeutic communication and the development of leadership skills. Mental Health and Leadership clinicals are in psychiatric and medical units of acute care hospitals, day treatment facilities, long-term care, and community sites. (F,Sp)



**NURS265 Pediatric Nursing Care** 5

**Prerequisite:** Successful completion of 2nd semester of the Full-time or Accelerated Nursing Programs or 5th semester of the Part-time Nursing Program or 1st semester of the Fast Track Nursing Program

**Recommended:** BIOL204

Health and illness in the pediatric population are discussed using a systems perspective. The nursing process and course concepts are integrated into care of pediatric patients and families in hospitals, clinics, and other selected health care settings. The students use progressively more complex critical thinking skills. (F,Sp,Su)

**NURS280 Advanced Chronic Nursing Care** 5

**Prerequisite:** Successful completion of 3rd semester of the Full-time or Accelerated Nursing Programs or 6th semester of the Part-time Nursing Program or 2nd semester of the Fast Track Nursing Program

The student will use the nursing process in caring for adult clients adapting to chronic health problems. Care of client with immune system problems, hepatitis, HIV, diabetes mellitus, heart failure, and COPD is discussed. Clinical experiences are in the acute care facility and clinical visits to community agencies. (F,Sp)

**NURS285 Advanced Acute Nursing Care** 5

**Prerequisite:** Successful completion of 3rd semester of the Full-time or Accelerated Nursing Programs or 7th semester of the Part-time Nursing Program or 2nd semester of the Fast Track Nursing Program

The student will use the nursing process in caring for adult clients with critical health problems. Homeostatic responses to pathology of the cardiovascular and respiratory systems, fluid-electrolyte shifts, and acid-base imbalances are discussed. Advanced monitoring and patient assessment are incorporated throughout. Clinical experiences include acute care and leadership/management opportunities. (F,Sp)

**NURS296 Acute Care Nurse Intern** 4.5

**Prerequisite:** Department Approval

NURS296 is a bridge course focusing on new RN graduates to facilitate transition from graduate to practicing nurse in the care of the acutely ill patient. This course integrates advanced level course content, clinical laboratory experiences, and "real-world" work experiences under the guidance of an experienced RN preceptor. (Sp,Su)

**PARA - Paramedic**

**PARA221 Paramedic Medical Trauma I** 5

**Prerequisite:** Admission to Paramedic Program and Reading Level 5 and Writing Level 6 and Math Level 3

**Co-requisite Course(s):** PARA231 and PARA241 and PARA251 and PARA261

This course provides information about the pre-hospital management of medical and traumatic conditions at the advanced life support level. Emphasis is placed on pathophysiology, recognition of signs and symptoms, review of basic life support management techniques, and strategies for advanced life support care. (F)

**PARA222 Paramedic Medical Trauma II** 5

**Prerequisite:** Minimum 3.0 in PARA221

**Co-requisite Course(s):** PARA232 and PARA242 and PARA252 and PARA262

PARA222 incorporates previous knowledge gained at the basic EMT level and PARA221. Provides material for management of prehospital emergencies including assessment and management of neurological, behavioral, abdominal, metabolic, geriatric, and multiple trauma patients. The principles of triage, management of mass casualty incidents, and telecommunications are also included. (Sp)

**PARA231 Paramedic Cardiology I** 5

**Prerequisite:** Admission to Paramedic Program

**Co-requisite Course(s):** PARA221 and PARA241 and PARA251 and PARA261

This course provides the paramedic student with information about cardiovascular anatomy, physiology, and electrophysiology. Emphasis is placed on rhythm interpretation, recognition of life threatening arrhythmias, electrical intervention and other prehospital patient management strategies. (F)

**PARA232 Paramedic Cardiology II** 2

**Prerequisite:** Minimum 3.0 in PARA231

**Co-requisite Course(s):** PARA222 and PARA242 and PARA252 and PARA262

Builds on information learned in PARA231 as a basis for more advanced arrhythmia interpretation. Management of cardiac arrest including medications, cardioversion, transcutaneous pacing, and defibrillation will be a major emphasis. Pacemakers, 12-lead ECG interpretation, and other advanced procedures, and arrhythmias will be presented. Application of theory, judgment, and decision-making strategies are evaluated. (Sp)

**PARA241 Paramedic Pharmacology I** 2

**Prerequisite:** Admission to Paramedic Program

**Co-requisite Course(s):** PARA221 and PARA231 and PARA251 and PARA261

Provides the student with information necessary for the preparation, calculation of doses, and administration of drugs used in the prehospital setting, including classification, action, use, and side effects. Information about other commonly prescribed drugs is also provided. (F)

**PARA242 Paramedic Pharmacology II** 2

**Prerequisite:** Minimum 3.0 in PARA241

**Co-requisite Course(s):** PARA222 and PARA232 and PARA252 and PARA262

This course provides the paramedic student with additional in-depth information on Advanced Cardiac Life Support drugs including classification, action, use, and side effects. Information about other commonly used and prescribed drugs is also provided. (Sp)

**PARA251 Paramedic Skills I** 2

**Prerequisite:** Admission to Paramedic Program

**Co-requisite Course(s):** PARA221 and PARA231 and PARA241 and PARA261

Provides introduction of paramedic skills required for advanced life support and provides the opportunity to apply theory to field practice in a discussion and skills lab setting. Skills will be demonstrated, practiced during supervised labs, and tested for competency. The student must have excellent basic EMT skills upon entry. (F)

**PARA252 Paramedic Skills II** 2

**Prerequisite:** Minimum 3.0 in PARA251

**Co-requisite Course(s):** PARA222 and PARA232 and PARA242 and PARA262

This course is a continuation of Skills I with the introduction of additional skills and continued application of theory. Measurement criteria for skills competencies becomes more stringent and students must become competent in all paramedic skills in preparation for the field internship component. (Sp)

**PARA261 Paramedic Clinical I** 3  
**Prerequisite:** Admission to Paramedic Program  
**Co-requisite Course(s):** PARA221 and PARA231 and PARA241 and PARA251  
 Provides clinical experience for paramedic students in areas including nursing home; hospital units such as the emergency department, critical care units, burn units, obstetrics, pediatrics, and psychiatric units; and designated EMS agencies under the supervision of licensed paramedics. Students are also evaluated in the management of simulated emergencies. (F)

**PARA262 Paramedic Clinical II** 3  
**Prerequisite:** Minimum 3.0 in PARA261  
**Co-requisite Course(s):** PARA222 and PARA232 and PARA242 and PARA252  
 This course provides clinical experience for paramedic students in areas including hospital units such as emergency departments, critical care units, obstetrics, pediatrics, surgery, and designated EMS agencies under the supervision of licensed paramedics. Students are also evaluated in the management of simulated emergencies. (Sp)

**PARA263 Paramedic Internship** 3  
**Prerequisite:** Minimum 3.0 in (PARA221 and PARA231 and PARA241 and PARA251 and PARA261)  
 This course provides a field internship component with an advanced life support agency. Students are assigned to a paramedic training officer to provide total patient care and other professional duties under direct supervision with continuous evaluation of the student's progress. Oversight is provided by the program clinical coordinator and program director. (Su)

**PFAQ - Physical Fitness: Aquatics**

**PFAQ100 Swimming: Primary Skills** 1  
**Prerequisite:** None  
 This is an introductory swimming course which focuses on the development of basic swimming strokes, rhythmic breathing, survival swimming, and beginning diving skills. (F,Sp,Su)

**PFAQ101 Swimming: Stroke Development** 1  
**Prerequisite:** None  
**Recommended:** PFAQ100  
 This course stresses development of skills in front crawl and backstroke. Students will be introduced to the backcrawl, breaststroke, and butterfly, with strong concentration on rhythmic breathing. (F,Sp,Su)

**PFAQ104 Swimming/Training** 1  
**Prerequisite:** None  
 This course is designed for persons interested in skill development in all competitive swimming strokes as well as in a fitness program design. The student should be able to swim 500 yards in 10 minutes. (F,Sp,Su)

**PFAQ106 Water Walking/Toning** 1  
**Prerequisite:** None  
 This course utilizes a variety of walking and running moves in shallow or deep water to enhance cardiovascular fitness. Toning exercises for arms, abdominal, and thighs are used extensively. Non-ballistic moves are emphasized. (F,Sp,Su)

**PFAQ107 Water Exercise I** 1  
**Prerequisite:** None  
 This course utilizes a variety of movements performed in shallow or deep water, to improve cardiovascular fitness and flexibility. No swimming skills required. (F,Sp,Su)

**PFAQ110 Hydro-Fit Exercise I** 1  
**Prerequisite:** None  
 This course is designed to give the student an overall water fitness workout with little impact to joints or back. The class uses Hydro-Fit buoyancy equipment to tone and strengthen muscles, develop coordination, and increase flexibility. (F,Sp,Su)

**PFAQ111 Hydro-Fit Exercise II** 2  
**Prerequisite:** None  
**Recommended:** PFAQ110  
 This is a water fitness program using water resistance to tone and strengthen muscles, develop coordination and increase flexibility by using Hydro-Fit exercise equipment. Emphasis is placed on increasing abdominal, shoulder, arm and lower body strength. (This class is similar to Hydro-Fit I, but meets three times per week.) (F,Sp,Su)

**PFAQ112 Scuba** 2  
**Prerequisite:** None  
 This course is a basic course in scuba diving. The course includes both classroom and pool training instruction. Upon successful completion of class, the student is eligible for scuba certification following open water training. (F,Sp)

**PFAQ114 Parent/Infant Water Adjustment** .5  
**Prerequisite:** None  
 This course places emphasis on parent/infant water adjustment, safety, and fun. Emphasis is placed on development of water experience and improvement of motor skills and coordination. (Infant ages between 6 months to 2 years) (F,Sp)

**PFAQ115 Parent/Toddler Water Adjustmnt** .5  
**Prerequisite:** None  
**Recommended:** PFAQ114  
 This course places emphasis on parent/toddler water adjustment, skill development, safety, and fun. Emphasis is on development of water experiences, improvement of motor development, coordination, and social skills. Toddlers should be 2 to 5 years old, depending upon skill development and/or instructor approval. (F,Sp)

**PFAQ116 Parent/Child Swim** .5  
**Prerequisite:** None  
**Recommended:** PFAQ115  
 This course focuses on parent/child water skill development, socialization skills, and safety. Individualized instruction is given for advancement of motor skill and coordination in the aquatic environment. Children should be 4 to 5 years old and/or instructor's approval. (F,Sp)

**PFAQ118 Arthritis Foundation Aquatics Program** 1  
**Prerequisite:** None  
 This course will give the student exercises for range of motion in comfortable water temperatures and will improve and help maintain flexibility and well-being. (F,Sp)

**PFAQ119 Scuba Certification Class** 1  
**Prerequisite:** Minimum 2.0 in PFAQ112  
 This course is designed to allow students who have completed scuba PFAQ112 or equivalent to complete their open water scuba certification training. Upon successful completion of the class, the student will receive Scuba Schools Internationals' open water certification. (F,Sp)

**PFAQ120 Basic Lifeguarding** 1  
**Prerequisite:** None  
 This course is designed to provide the necessary minimum skills of training to qualify as an entry-level lifeguard. (F,Sp)

**PFAQ122 Water Safety Instruction** 2  
**Prerequisite:** None  
 This course is designed to assist in teaching basic aquatic skills for instructors. Teaching modalities and how different students learn is covered. (F,Sp)

### PFDA - Physical Fitness: Dance

**PFDA142 Ballroom Swing I** 1  
**Prerequisite:** None  
**Recommended:** Enrollment with a partner  
 Introduction to the study of ballroom swing including partnership technique, dance posture, basic patterns, music and style of the Swing dances. Includes introduction to dances using different styles and speeds of music such as East Coast swing, West Coast swing, jitterbug, and jive. Enrollment with a partner is strongly recommended. (F,Sp,Su)

**PFDA147 Latin Ballroom I** 1  
**Prerequisite:** None  
**Recommended:** Enrollment with a partner  
 This course includes an introduction to partnership technique, dance posture, basic patterns and music for Latin partnership dancing. Dances will be selected from the following: cha-cha, rumba, mambo, merengue, salsa, samba, and tango. Enrollment with a partner is strongly recommended. (F,Sp,Su)

**PFDA151 Ballroom Bronze I Workshop** 1  
**Prerequisite:** None  
**Recommended:** Enrollment with a partner  
 Introduction to the study of ballroom including partnership technique, dance posture, basic patterns, and music for traditional ballroom dances including waltz, fox trot, cha-cha, rumba, and swing. Enrollment with a partner is strongly recommended (F,Sp,Su)

**PFDA152 Latin Ballroom II** 1  
**Prerequisite:** None  
**Recommended:** PFDA147, and enrollment with a partner  
 This course is designed to build on the techniques introduced in Latin Ballroom I, Ballroom I, Ballroom Swing I, or Ballroom Topics. Emphasis will be placed on the following dance styles: cha-cha, rumba, mambo, samba, salsa, merengue, and tango. Enrollment with a partner is strongly recommended. (F,Sp,Su)

### PFFT - Physical Fitness: Fitness

**PFFT100 Total Fitness A** 2  
**Prerequisite:** None  
 Total Fitness encompasses fitness, nutritional health, and general wellness principles. Students will complete an assessment measuring aerobic fitness, strength, flexibility, and nutrition. With supervision of an instructor, students will develop and participate in an exercise plan tailored to their individual needs. The course features flexibility of attendance and modular teaching. (F,Sp,Su)

**PFFT101 Total Fitness B** 2  
**Prerequisite:** None  
 Total Fitness encompasses fitness, nutritional health, and general wellness principles. Students will complete an assessment measuring aerobic fitness, strength, flexibility, and nutrition. With supervision of an instructor, students will develop and participate in an exercise plan tailored to their individual needs. The course features flexibility of attendance and modular teaching. (F,Sp,Su)

**PFFT102 Total Fitness C** 2  
**Prerequisite:** None  
 Total Fitness encompasses fitness, nutritional health, and general wellness principles. Students will complete an assessment measuring aerobic fitness, strength, flexibility, and nutrition. With supervision of an instructor, students will develop and participate in an exercise plan tailored to their individual needs. The course features flexibility of attendance and modular teaching. (F,Sp,Su)

**PFFT103 Total Fitness D** 2  
**Prerequisite:** None  
 Total Fitness encompasses fitness, nutritional health, and general wellness principles. Students will complete an assessment measuring aerobic fitness, strength, flexibility, and nutrition. With supervision of an instructor, students will develop and participate in an exercise plan tailored to their individual needs. The course features flexibility of attendance and modular teaching. (F,Sp,Su)

**PFFT104 Therapeutic Massage Fitness Lab** 1  
**Prerequisite:** None  
**Restriction:** Therapeutic Massage Student  
**Co-requisite Course(s):** PFHW163  
 This course is designed for students in the Therapeutic Massage Program. The emphasis is on general fitness (cardiovascular, flexibility, muscle strength and endurance), as well as specific exercises related to massage therapy skills. General wellness principles are addressed during this course. (F,Sp,Su)

**PFFT107 Jogging: Beginning** 1  
**Prerequisite:** None  
 This course introduces jogging as a fitness modality and covers how to care for feet, proper equipment choices, clothing, and safety. (F,Sp,Su)

**PFFT111 Aerobic Boxing** .5  
**Prerequisite:** None  
 This course will teach the art of self-defense while improving your aerobic and anaerobic capacity. (F,Sp,Su)

**PFFT112 Body Flexibility** 1  
**Prerequisite:** None  
 This course is designed to increase body flexibility by learning proper stretching techniques and applying these techniques to range of motion and muscle flexibility. (F,Sp,Su)

**PFFT113 Core Strength and Flexibility Training** 1  
**Prerequisite:** None  
 This course combines core training and flexibility exercises. Students will use calisthenics and floor exercises to improve muscle strength, increase flexibility, and develop core strength (back and abdominal muscles). Proper flexibility techniques and exercises will be emphasized. Students will experience a total body workout utilizing all major muscle groups. (F,Sp,Su)

**PFFT114 Advanced Circuit Training** 2  
**Prerequisite:** None  
 This course is designed to incorporate strength conditioning, muscle endurance, flexibility, and cardiovascular training for a total body workout. This can be accomplished in a relatively short time frame by utilizing the circuit training method. (F,Sp,Su)

**PFFT119 Fire Academy Fitness Training** 3  
**Prerequisite:** Admission to Fire Academy  
**Co-requisite Course(s):** FIRE101 and FIRE102  
 This course provides Fire academy students with techniques and practice to improve and maintain a high degree of physical fitness necessary to meet the demands of their profession. (F,Sp)

**PFFT120 Aerobic Exercise** 2  
**Prerequisite:** None  
 This course helps students to improve cardiovascular function and oxygen efficiency to enhance muscle structure and function through toning exercises, aerobic dancing, and stretching. (F,Sp,Su)

**PFFT122 Step Aerobics** 2  
**Prerequisite:** None  
 This course helps students improve cardiovascular efficiency through the use of step platforms. Movement combinations with increasing complexity will be used to increase student's balance and coordination. Toning and stretching exercises will be used to complete muscle balancing and flexibility. Educational material will be distributed to increase student's knowledge of fitness and wellness to improve personal quality of life. (F,Sp,Su)

**PFFT134 Mind/Body Fitness-The Nia Technique** 1  
**Prerequisite:** None  
 Nia blends self expressive, simple movements from martial arts, dance arts and healing arts for balanced conditioning. Nia empowers students to achieve physical, mental, and emotional well being through a safe cardiovascular exercise approach. Nia is designed to connect students to their inner rhythm through greater body awareness. (F,Sp,Su)

**PFFT136 Dance Exercise** 1  
**Prerequisite:** None  
 This course includes warm-ups and exercise from various dance genres including ballet, modern, and jazz designed to develop flexibility, strength, and coordination. Emphasis is placed on toning and stretching. (F,Sp,Su)

**PFFT147 Basketball Fitness Training** 2  
**Prerequisite:** None  
 This course is not a traditional basketball class. Participants will be in a workout class that will have an emphasis on conditioning using basketball drills and basketballs. Class activities will include running, continuous movement, shooting, defensive slides, and dribbling. (F,Sp)

**PFFT151 Cardiac Rehab Exercise** 3  
**Prerequisite:** Department Approval  
 This continuing course includes medically-monitored exercise and education, which emphasizes reducing the risk factors known to contribute to heart disease. Methods and level of exercise are determined by the participant's physician and the program medical director. Monitored by professional staff. (F,Sp,Su)

**PFFT169 Fit for Life Exercise** 1  
**Prerequisite:** None  
 This course introduces the older student to the benefits and importance of a regular exercise program to combat the debilitating effects which inactivity has upon aging. The student will learn the benefits of cardiovascular exercise as well as flexibility, mobility, and range of motion. (F,Sp)

**PFFT170 Yoga: Beginning** 1  
**Prerequisite:** None  
 This course is an introduction to yogic breathing and yogic stretching exercises with emphasis on relaxation and meditation. Yoga postures will be utilized to reduce stress and tension. (F,Sp,Su)

**PFFT171 Yoga: Continuing** 1  
**Prerequisite:** None  
**Recommended:** PFFT170  
 This course promotes psycho-physical integration of body and mind through yogic breathing, stretching, and relaxation. Guided breathing and visualization are used to enhance depth and quality of relaxation and meditation. (F,Sp,Su)

**PFFT180 Seminar: Special Subjects** 0-6  
**Prerequisite:** None  
 Seminars are designed to meet specific community needs. (F,Sp,Su)

**PFFT261 Adult Lifestyles Exercise** 2  
**Prerequisite:** Department Approval  
 An opportunity for students to maintain and/or improve their fitness level through supervised aerobic exercise sessions and health education. Emphasis is on regular, safe exercise and healthy lifestyles. (F,Sp,Su)

**PFHW - Physical Fitness: Health/Fitness/Wellness**

**PFHW100 Health and Wellness Seminar** .5-4  
**Prerequisite:** None  
 This course introduces the student to 8 hours of various topics related to health awareness, wellness, and/or prevention of lifestyle-related illness. (F,Sp,Su)

**PFHW105 Medical Altern for Health and Wellness** 2  
**Prerequisite:** None  
 This course discusses alternatives in maintaining health and correcting illness. The students will examine the six major medical systems, as well as many alternative therapies from around the world. (F,Sp)

**PFHW123 Human Nutrition** 3  
**Prerequisite:** Reading Level 5  
**Recommended:** Biology  
 An introductory course in human nutrition. Topics include digestion, absorption, metabolism, and biological functions of nutrients; nutrition needs throughout the life cycle; relationship of nutrition and eating patterns to health and disease; individual and societal influences on food choices; and the role of government in food safety and security. (F,Sp,Su)

**PFHW130 Theory and Practice of Yoga** 2  
**Prerequisite:** None  
**Recommended:** PFFT170  
 This course explores the theoretical foundations of yoga and its historical framework. Lecture, discussion, and in-class practice will give participants an opportunity to deepen their understanding of yoga theory and how it pertains to their daily practice. Students will explore how yoga exercises and relaxation practices promote health and fitness through stress reduction. (F,Sp)

**PFHW133 Therapeutic Touch and Yoga**

**Prerequisite:** None

**Recommended:** PFHW130

This course will combine the theories and practices of yoga and Therapeutic Touch. The foundation of TT is yoga meditation. Classes provide practice in Energy Theory as it applies to individual learners and as an agent of healing. Balanced with TT will be breathing and relevant research and theory. (F,Sp)

**PFHW161 Self-Awareness: Key to Wellness**

**Prerequisite:** None

This course introduces the student to aspects of self-awareness that can lead to greater vitality in all aspects of life. The student will learn ways in which he or she is influenced by family and cultural beliefs. Tools for changing behavior will be presented. (F,Sp)

**PFHW163 Healthy Lifestyles**

**Prerequisite:** Reading Level 5 and Writing Level 6

This course introduces the student to lifestyle skills that lead to better health. The student will learn healthy nutritional habits, basic fitness concepts, positive stress reduction, and development of a personalized healthy lifestyle plan. Assessment skills and wellness concepts will be put into practice. (F,Sp,Su)

**PFHW181 Stress Management**

**Prerequisite:** None

This course helps students understand the basic components of the stress response and how they limit our physical, mental and emotional well-being. Students learn and apply basic principles that help to resolve stressful situations and lead to greater sense of ease and pleasure in life, work and relationships. (F,Sp,Su)

**PFHW190 Seminar: Wilderness Survival Techniques**

**Prerequisite:** None

This course provides basic outdoor survival skills and techniques to campers, outdoor enthusiasts, and group leaders. Among the topics are shelter, fire, water, signals, orienteering, food procurement, hot/cold stress management, toxic bites, edible plants of the world, and survival at sea. Optional three-day field trip exercise. (F,Sp,Su)

**PFHW191 Seminar: Wild Food Plants**

**Prerequisite:** None

This course introduces 77 kinds of edible wild plants and their toxic look-a-likes from Michigan and adjoining states. The students learn to distinguish these plants on the basis of observed plant characteristics. The material is illustrated in slides and handouts. Several outdoor experiences are provided. Conservation stressed. (F,Sp,Su)

**PFKN - Physical Fitness: Kinesiology**

**PFKN105 Psychology of Coaching**

**Prerequisite:** None

This course provides a comprehensive introduction to the art and science of coaching, as well as an introduction to the art of positive coaching philosophy. (F,Sp)

**PFKN106 Aerobic Instructor Training**

**Prerequisite:** None

This course will train the student on how to instruct a safe and effective aerobic fitness class. High and low impact aerobics, step aerobics, and muscle repetition work using light weights and resistance bands will be emphasized. Safe exercise techniques, developing creative choreography, and teaching modifications for special populations will be covered. (F,Sp)

**PFKN170 Foundations of Kinesiology**

**Prerequisite:** Reading Level 5 and Writing Level 6

This is an introductory professional course in Kinesiology, which examines the multiple aspects of physical education and Kinesiology as a discipline, major, and profession. Sub-disciplines and career options in the field, along with historical perspectives and current issues in physical education, will also be discussed. (F,Sp,Su)

**PFKN210 Athletic Training Principles**

**Prerequisite:** Reading Level 5 and Writing Level 6

**Recommended:** Biology

This course is an overview of prevention, management, and rehabilitation as each relates to athletic injury. It also provides an examination of various techniques used for the assessment, treatments, and rehabilitation of athletic injuries. Other topics include legal implications for the athletic trainer, first aid principles, and taping procedures. (Sp)

**PFKN250 Measurements in Kinesiology**

**Prerequisite:** Reading Level 5 and Writing Level 6 and Math Level 3

**Recommended:** PFKN170

This is an introductory course which examines materials and methods used for assessment and analysis within Kinesiology. Emphasis will be placed on procedures and tools used within the various sub-disciplines. Measurement and evaluation methods will address motor skills, physical fitness, and psychological components associated with physical fitness. (F,Sp)

**PFKN260 Growth and Motor Behavior**

**Prerequisite:** Reading Level 5 and Writing Level 6

This is a fundamental course which investigates the relationship between biological maturation and physical growth as it relates to motor performance and motor skills learning. The course will also cover fundamentals of motor learning, stages of skill acquisition, physical fitness, and motor abilities of children and youth. (F,Sp)

**PFKN295 Independent Study in Physical Fitness**

**Prerequisite:** None

An opportunity for self-directed learners to explore topics related to, but not taught in the curriculum. Students spend at least two hours per week for each credit. A detailed proposal must be submitted by the student for approval by the Department and supervising instructor prior to registration. (F,Sp,Su)

**PFSP - Physical Fitness: Team and Individual Sports**

**PFSP100 Aikido**

**Prerequisite:** None

This course is an introduction to the philosophy of Aikido. Basic movements of Aikido as a martial art are introduced. (F,Sp)

**PFSP101 Angling: Beginning**

**Prerequisite:** None

This course introduces the student to angling with demonstrations of basic angling tackle and techniques. Information is provided on Michigan sport fish and their habitat. Fishing trips are taken for steelhead, walleye, salmon, trout, bass, and other game fish. Students are introduced to the excitement, satisfaction and mystique of fishing. (F,Sp)

**PFSP102 Basketball: Beginning**

**Prerequisite:** None

This course introduces the student to the fundamental skills of basketball. Course emphasis is placed on ball handling, passing, shooting, and rules. (F,Sp)

<p><b>PFSP103 Basketball: Advanced</b> 1</p> <p><b>Prerequisite:</b> None</p> <p><b>Recommended:</b> PFSP102</p> <p>This course is designed for the student who has a sound understanding of basketball skills. Drills will be used to enhance passing and shooting skill development. Emphasis is placed on team play as well as individual skill improvement. (F,Sp)</p>	<p><b>PFSP112 Judo: Beginning</b> 1</p> <p><b>Prerequisite:</b> None</p> <p>This course is designed to familiarize students with basic Judo techniques of falling, throwing, and grappling. (F,Sp,Su)</p>
<p><b>PFSP104 Bicycling Camping/Touring</b> 1</p> <p><b>Prerequisite:</b> None</p> <p>This course is a 2 1/2 day bicycle trip in a scenic area of Michigan. The class will include two nights of camping and two days of bike riding 35-45 miles each day. Base camp will be set up or a sag wagon will be used. Carrying your own gear will be optional. (F,Sp,Su)</p>	<p><b>PFSP113 Judo: Intermediate</b> 1</p> <p><b>Prerequisite:</b> None</p> <p><b>Recommended:</b> PFSP112</p> <p>This course works toward a series of sequential Judo movements with continued emphasis on throwing and grappling. (F,Sp)</p>
<p><b>PFSP105 Bowling: Beginning</b> 1</p> <p><b>Prerequisite:</b> None</p> <p>This course is a basic introduction to bowling. Primary emphasis is placed on spot bowling, release, and approach. Students become familiar with bowling etiquette and scoring. (F,Sp,Su)</p>	<p><b>PFSP114 Karate: Beginning</b> 1</p> <p><b>Prerequisite:</b> None</p> <p>This course introduces the basic skills of karate: kicking with the feet and knees, and punching with the fist and hands. (F,Sp,Su)</p>
<p><b>PFSP106 Bowling: Advanced</b> 1</p> <p><b>Prerequisite:</b> None</p> <p><b>Recommended:</b> PFSP105</p> <p>This course is an extensive review of skills introduced at the beginning level. Students develop strategies in lane reading. (F,Sp,Su)</p>	<p><b>PFSP115 Karate: Intermediate</b> 1</p> <p><b>Prerequisite:</b> None</p> <p><b>Recommended:</b> PFSP114</p> <p>This course further develops karate skills in punching with the fists and hands, kicking with feet and knees, and essential body movement in combative activities with an emphasis on free sparring. (F,Sp,Su)</p>
<p><b>PFSP107 Fencing: Beginning</b> 1</p> <p><b>Prerequisite:</b> None</p> <p>This course is designed to introduce the student to basic skills and theories in foil fencing. Course emphasis is placed on basic skills such as advance, retreat, lunge, disengage, coupe', one-two double', riposte, counter parry and riposte, and advance-lunge. Group instruction is used. (F,Sp)</p>	<p><b>PFSP116 Karate: Advanced</b> 1</p> <p><b>Prerequisite:</b> None</p> <p><b>Recommended:</b> PFSP114 or PFSP115</p> <p>This course places primary emphasis on the development of sparring techniques as they relate to punching and kicking. Students spar and move toward the competitive aspect of karate as a martial art. (F,Sp,Su)</p>
<p><b>PFSP108 Fencing: Intermediate</b> 1</p> <p><b>Prerequisite:</b> Minimum 2.0 in PFSP107</p> <p>This course builds upon the 12 basic fencing skills and introduces rules and complex fencing movements. Students will use acquired skills in fencing bouts. (F,Sp)</p>	<p><b>PFSP117 Pool: Beginning</b> 1</p> <p><b>Prerequisite:</b> None</p> <p>This course introduces students to the fundamentals of pool (pocket billiards). Primary course emphasis is on stance, grip, bridge, aim, and stroke. Cue ball position shots such as stop, follow, draw, and center are covered. (F,Sp)</p>
<p><b>PFSP109 Golf: Beginning</b> 1</p> <p><b>Prerequisite:</b> None</p> <p>This course is an introduction to the basics of golf which includes equipment, grip, stance and posture, club swing, and the rules and etiquette of golf. (F,Sp,Su)</p>	<p><b>PFSP118 Pool: Intermediate</b> 1</p> <p><b>Prerequisite:</b> None</p> <p><b>Recommended:</b> PFSP117</p> <p>This course reviews the fundamentals of stance, grip, bridge, aim, and stroke. Skill improvement and concentration techniques are stressed. (F,Sp)</p>
<p><b>PFSP110 Golf: Intermediate</b> 1</p> <p><b>Prerequisite:</b> None</p> <p><b>Recommended:</b> PFSP109</p> <p>This course will review the basics of golf: equipment, grip, stance and posture, and club swing. Students will be given drills to foster and improve proper swing mechanics for course play. (F,Sp,Su)</p>	<p><b>PFSP122 Tai Chi I</b> 1</p> <p><b>Prerequisite:</b> None</p> <p>This course introduces the first 30 forms of the Yang-style Tai Chi. Students develop techniques to focus on relaxation and inner calmness. (F,Sp)</p>
<p><b>PFSP111 Indoor Soccer</b> 1</p> <p><b>Prerequisite:</b> None</p> <p>This course is designed to introduce students to the basics of indoor soccer. Passing and shooting drills are emphasized along with team play. Modifications to soccer rules are used to accommodate indoor soccer rules. (F,Sp,Su)</p>	<p><b>PFSP123 Tai Chi II</b> 1</p> <p><b>Prerequisite:</b> None</p> <p><b>Recommended:</b> PFSP122</p> <p>This course covers more difficult forms in Tai Chi. Yang-style Tai Chi stresses the health and well-being of the whole person. Yang-style movements allow students to move in slow, smooth, steady, and continuous movement. (F,Sp)</p>
	<p><b>PFSP124 Tennis: Beginning</b> 1</p> <p><b>Prerequisite:</b> None</p> <p>This course will introduce the student to the following skills: ground strokes, serve, volley, lob, and overhead serving as well as doubles and singles strategy. (F,Sp)</p>

**PFSP125 Tennis: Intermediate** 1

**Prerequisite:** None

**Recommended:** PFSP124

This course will introduce the student to the lob, half volley, and a number of different serves. The student should be able to demonstrate and execute the fundamentals of tennis: ground strokes, net volley, serve, and the knowledge of scoring the game. (F,Sp)

**PFSP126 Volleyball: Beginning** 1

**Prerequisite:** None

This course introduces the student to the fundamental skills of volleyball. Course emphasis is on proper serving, setting, forearm passing, spiking, positioning, rules, and game strategy. (F,Sp)

**PFSP127 Competitive Volleyball** 1

**Prerequisite:** None

**Recommended:** PFSP126

This course provides the student with a conceptual framework for advanced offensive and defensive systems of volleyball. Individuals work on skill drills and intra-class competition. (F,Sp)

**PFSP130 Judo: A to Z (Kata)** 1

**Prerequisite:** None

This course is designed to provide beginning Judo students with comprehensive instruction in basic Judo techniques as well as experiences in learning portions of Kodokon Kata (Nage-no-kata, Katame-no-kata, Juno-kata, Goshin Jutsu). The emphasis is on the art of Judo. (Su)

**PFWT - Physical Fitness: Weight Training**

**PFWT112 Introduction to Weight Training** 1

**Prerequisite:** None

This basic resistance (weight) training course is designed to introduce resistance training and proper lifting techniques to students. Safety rules, proper use of equipment, and concepts of lifting will be emphasized. (F,Sp,Su)

**PFWT123 Weight Training I** 2

**Prerequisite:** None

This course is designed to promote physical fitness through progressive resistance (weight) training. Instruction will include principles, methods and techniques of resistance training. Using this material, students will design their own program with emphasis on muscle strengthening, muscle endurance and weight reduction. Principles of proper body mechanics will be applied. (F,Sp,Su)

**PFWT124 Weight Training II** 2

**Prerequisite:** None

**Recommended:** PFWT112 or PFWT123

This course expands students' knowledge of progressive resistance (weight) training, (using both free weights and machines), thus increasing the variety and methods of training techniques. Students will monitor their food intake throughout the semester, further developing an understanding of the impact of appropriate dietary habits on resistance training. (F,Sp,Su)

**PHIL - Philosophy**

**PHIL151 Intro to Logic and Critical Thinking** 4

**Prerequisite:** Reading Level 5

Introduction to modern logic and elements of reasoning, with special attention given to the roles of language in reasoning, distinguishing deductive from inductive arguments, recognizing levels of meaning and differing world views (Weltanschauungen), analyzing truth-functional relations, avoiding fallacious reasoning or misleading language, and using logical skills in everyday life. (F,Sp,Su)

**PHIL152 Introduction to Ethics** 4

**Prerequisite:** Reading Level 5

Designed to explore essential requirements for moral reasoning and to call attention to both the factual foundation as well as the traditional criteria utilized for value judgments. Major ethical theories will be discussed, along with their applications to everyday situations. The course will include cross-cultural references, when appropriate. (F,Sp,Su)

**PHIL153 Knowledge and Reality** 4

**Prerequisite:** Reading Level 5

Select issues from classical and contemporary philosophy provide an introduction to differences between knowledge and opinion, ways of supporting knowledge claims, and the relationship between the knower and what exists. (F)

**PHIL211 World Philosophies I** 4

**Prerequisite:** Reading Level 5 and Writing Level 6

**Recommended:** WRIT121 or WRIT131

Surveys major developments in theories of knowledge, reality, ethics, and society, and their historical role in shaping cultures and human identity. Covers Chinese, Indian, Greek, Roman, Christian, Islamic, and European thought from mythic beginnings to the period of early scientific reasoning. (F,Sp)

**PHIL212 World Philosophies II** 4

**Prerequisite:** Reading Level 5 and Writing Level 6

**Recommended:** WRIT121 or WRIT131

Surveys major developments in theories of knowledge, reality, ethics, and society, and their historical role in shaping cultures and human identity. Covers European, Asian, African, Native American, and American pragmatic thought from the scientific revolution to contemporary global concerns. (Sp)

**PHIL260 Contemporary Ethical Problems** 4

**Prerequisite:** Reading Level 5 and Writing Level 6

This is an advanced course designed to examine contemporary moral issues which arise through technological and social developments. It will explore the limits of traditional ethical theories and/or their possible adaptation to a changing world. Where appropriate, course includes issues of cross-cultural importance which involve multinational concerns. (Sp)

**PHIL295 Independent Study in Philosophy** 1-4

**Prerequisite:** Department Approval

An opportunity for self-directed learners to explore topics related to, but not taught in the curriculum. Students spend at least two hours per week for each credit. A detailed proposal must be submitted by the student for approval by the Department and supervising instructor prior to registration. (F,Sp,Su)

**PHOT - Photography Technology****PHOT101 Basic Photography for Non-Majors** 2**Prerequisite:** None

Students will learn to use camera controls, photographic composition, and lighting to make better photographs. Color slide film and commercial processing or digital capture (the student's own computer will be used). Designed for students with little or no previous still photography experience who do not plan to major in imaging technology. (F,Sp,Su)

**PHOT111 Photographic Technology I** 4**Prerequisite:** Reading Level 3 and Writing Level 2 and Math Level 3

An introduction to photographic technology on both a theoretical and practical level. The student will learn camera types and related equipment, exposure controls, creative controls, and beginning and intermediate digital darkroom skills including correcting and enhancing digital images and preparing files for output on black and white printing devices using image editing. This course is the introductory course in the Photographic Imaging Technology Program. (F,Sp,Su)

**PHOT112 Digital Imaging for Photographers** 4**Prerequisite:** Minimum 2.0 in PHOT111 (previously IMAG111) or concurrently and Reading Level 3 and Writing Level 2 and Math Level 3

An introduction to the capture, processing and manipulation of digital photographic images using image editing software. Students will learn to scan, capture, correct and enhance digital images and prepare files for output on black and white and color printing devices. Introduces students to theories, terminology, and applications of digital imaging technologies. (F,Sp,Su)

**PHOT113 Lighting Concepts and Applications** 3**Prerequisite:** Minimum 2.0 in PHOT111 (previously IMAG111) or concurrently

Introduces the student to the fundamental concepts of photographic lighting for image capture in the studio and on location. Students will learn to apply their knowledge by identifying and solving common photographic lighting problems. Students will use professional continuous lighting equipment to produce images. (F,Sp,Su)

**PHOT114 Photographic Color Technology** 3**Prerequisite:** Minimum 2.0 in PHOT111 (previously IMAG111) and (PHOT112 or ARTS171) and PHOT113 (previously IMAG113) and (ARTS102 or IMAG112) and Reading Level 5 and Writing Level 2 and Math Level 3

Introduces the student to the theories and applications of contemporary color photographic imaging processes and materials. Students will learn to produce acceptable color images by applying the concepts of color calibration, color management, lighting, and color image design to the production of their images. (F,Sp)

**PHOT117 Photographic Technology II** 4**Prerequisite:** Minimum 2.0 in PHOT111 (previously IMAG111) and minimum 2.0 in (ARTS171 or PHOT112)

This course is a continuation of Photographic Technology I. Students will learn intermediate and advanced digital imaging exposure, image processing, and output controls and techniques. Students will acquire knowledge and skills to solve technical, aesthetic, and communication problems. Successful completion required for continuation in the Photo Imaging Technology Program at the 200 level. (F,Sp)

**PHOT118 Visual Literacy** 2**Prerequisite:** Minimum 2.0 in (PHOT111 (previously IMAG111) and (PHOT112 or ARTS171) and PHOT113 (previously IMAG113) and (ARTS102 or IMAG112) and Reading Level 3 and Writing Level 2 and Math Level 3

An introduction to the basic theories of visual communication and how photographic images are and have historically been used as a language to disseminate information. Learners will explore the history and contemporary use of the photographic image and will create work in the style of a particular period or photographer. (F,Sp)

**PHOT119 Intermediate Lighting** 4**Prerequisite:** Minimum 2.0 in PHOT111 (previously IMAG111) and PHOT113 (previously IMAG113)

An exploration of intermediate lighting theories, practices and techniques. This course emphasizes the use and control of natural light and electronic flash as applied to people, locations and advanced studio settings. (F,Sp)

**PHOT191 Photo Imaging Special Topics** 1-3**Prerequisite:** Minimum 2.0 in PHOT117 (previously IMAG117)**Recommended:** (ARTS171 or PHOT112) and PHOT114 (previously IMAG114) and PHOT119 (previously IMAG119)

Photo Imaging Special Topics will be offered for intermediate and advanced photographic students. Topics will cover a broad range of subjects related to photographic imaging and related fields. (F,Sp,Su)

**PHOT212 Commercial Illustration Photography** 2**Prerequisite:** Minimum 2.0 in (PHOT112 and PHOT114 (previously IMAG114) and PHOT117 (previously IMAG117) and PHOT119 (previously IMAG119)) and (minimum 2.0 in PHOT215 (previously IMAG210) or concurrently)

Introduces students to the use of large format and medium format hybrid and digital imaging technologies as applied to professional commercial photographic illustration. Students will work in areas directly linked to the technical requirements needed to produce professional photographic illustrations. (F)

**PHOT213 Portrait Photography** 2**Prerequisite:** Minimum 2.0 in (PHOT112 and PHOT114 (previously IMAG114) and PHOT117 (previously IMAG117) and PHOT119 (previously IMAG119)) and (minimum 2.0 in PHOT215 (previously IMAG210) or concurrently)

Introduces students to the techniques and technologies associated with professional portrait photography. Students will work in areas directly linked to the technical and expressive elements of portrait photography including proper lighting techniques and digital retouching methods. (F)

**PHOT214 Photojournalism** 2**Prerequisite:** Minimum 2.0 in (PHOT112 and PHOT114 (previously IMAG114) and PHOT117 (previously IMAG117) and PHOT119 (previously IMAG119)) and (minimum 2.0 in PHOT215 (previously IMAG210) or concurrently)

This course introduces students to techniques and practices of photojournalism, documentary photography, and public relations photography. (F)

**PHOT215 Digital Color Printing and Prepress** 3**Prerequisite:** Minimum 2.0 in PHOT114 (previously IMAG114) and PHOT117 (previously IMAG117) and PHOT119 (previously IMAG119)

Introduces the student to the contemporary processes and materials used in current digital color photographic print process. Students will learn to produce professionally acceptable prints using color output devices. Students will apply color management, color correction, image enhancement techniques, and lab efficiency skills to their images. (F,Sp)



**PHOT228 Independent Study**

**Prerequisite:** Minimum 2.0 in PHOT117 (previously IMAG117) and Approved Proposal

Students will apply critical thinking processes and digital photographic imaging technologies to produce a body of work illustrating their area(s) of special interest. (F,Sp,Su)

**PHOT232 Internship**

**Prerequisite:** Minimum 2.0 in PHOT117 (previously IMAG117) and Approved Proposal

This course allows advanced students to work as intern developing competencies in the technical, business, creative, and communicative aspects of photography and digital imaging. An acceptable application and internship agreement is required prior to registration. (F,Sp,Su)

**PHOT270 Business Issues for Photography**

**Prerequisite:** Minimum 2.0 in (PHOT212 (previously IMAG212) and PHOT213 (previously IMAG213) and PHOT214 (previously IMAG214) and PHOT215 (previously IMAG210))

This course exposes the student to the general business practices and approaches used in the photographic marketplace including small business management, copyright, marketing and legal issues. (Sp)

**PHOT280 Advanced Projects**

**Prerequisite:** Minimum 2.0 in PHOT114 (previously IMAG114) and PHOT117 (previously IMAG117) and PHOT119 (previously IMAG119)

Students will apply critical thinking processes and digital photographic imaging technologies to produce a body of work illustrating their area(s) of special interest. (Sp)

**PHOT290 Portfolio Assembly**

**Prerequisite:** Minimum 2.0 in PHOT212 (previously IMAG212) and PHOT213 (previously IMAG213) and PHOT214 (previously IMAG214) and PHOT215 (previously IMAG210) and (PHOT270 (previously IMAG233) and PHOT280) or concurrently)

This is a concluding course for the Photographic Imaging Technology program associate degree. This course finalizes the student's portfolio and immediate career plans. Students edit and assemble their best work into a cohesive, visual resume in order to secure employment or gain admission to another institution for continued studies. (Sp)

**PHYS - Physics****PHYS120 The Art of Physics**

**Prerequisite:** Reading Level 5 and Writing Level 6 and Math Level 4  
This course reveals the wonders of the physical universe by giving students a basic understanding of motion, forces, acoustics and optics. Designed for students in the Humanities; Art, Design & Multimedia; or other non-science areas. Extensive hands-on activities and laboratory exercises supplement the lecture. (F,Sp,Su)

**PHYS200 Introductory Physics With Applications**

**Prerequisite:** Reading Level 5 and Writing Level 6 and Math Level 4  
The basic principles of force, work, rate, resistance, energy waves and power are applied to four systems: mechanical (linear and rotational), fluid (liquid and gases), electrical and thermal systems using unifying concepts through mathematical expressions. Activities and experiments explore physics behind real-world applications. (F,Sp)

**Prerequisite:** Reading Level 5 and Writing Level 6 and (Math Level 9 or MATH141 concurrently)

First semester of algebra-based physics with laboratory, presents the fundamental principles of physics, with applications. Topics in mechanics include one and two dimensional kinematics, forces, energy and work, momentum and impulse, circular motion and rotational dynamics, conservation laws, elasticity and simple harmonic motion. Experiments and hands-on activities complement lecture topics. (F,Sp,Su)

**PHYS222 Introductory Physics II**

**Prerequisite:** Math Level 9 and Minimum 2.0 in PHYS221 or (PHYS201 and PHYS225)

Second semester continuation of algebra-based physics with laboratory, designed to present the fundamental principles of physics, with applications. Topics include electricity and magnetism, simple harmonic motion, waves, sound, light, geometric and physical optics. Experiments and hands-on activities complement the lecture topics. (F,Sp)

**PHYS251 Physics I: Mechanics**

**Prerequisite:** (Minimum 2.0 in MATH152 or MATH162 or concurrently) and Reading Level 5 and Writing Level 6

First in a two-semester sequence of calculus-based physics with laboratory for science and engineering students. Topics include forces and motion, momentum, work and energy, conservation laws of energy and momentum, rotational motion, static equilibrium, gravitation, oscillations. May include relativity, nuclear physics, thermodynamics. Experiments and hands-on activities complement lecture topics. (F,Sp,Su)

**PHYS252 Physics II: Electromag, Waves and Optic**

**Prerequisite:** Minimum 2.0 in PHYS251 or (PHYS215 and PHYS225) and (Minimum 2.0 in MATH152 or MATH162)

Second in a two-semester sequence of calculus-based physics with laboratory for science and engineering students. Topics include electric and magnetic forces and fields, electromagnetic energy, currents and circuits, electromagnetic oscillations and waves, mechanical waves and sound, light waves, physical and geometrical optics. Experiments and hands-on activities complement lecture topics. (F,Sp)

**POLS - Political Science****POLS120 American Political System**

**Prerequisite:** Reading Level 5  
An analysis of the American political system, emphasizing the federal system and government at the national level. This course studies national governmental institutions' activities, functions and methods of organizing resources and making policy. Emphasis is on political participation by an informed public. (F,Sp,Su)

**POLS121 State and Local Government**

**Prerequisite:** Reading Level 5  
An overview of state and local government in the United States with an emphasis on the Michigan government. Study is focused on state and local governmental institutions' activities, functions, resource management and policymaking. Consideration is given to relationships between federal, state and local governments, the issues they confront, and public participation. (F,Sp,Su)

**POLS201 Introduction to Political Science** 3  
**Prerequisite:** Reading Level 5  
 This course is an introduction to the study of politics and the academic fields of Political Science. It examines the fundamental nature of politics, the exercise of power and their implications. Students will explore the need for governance, role of power, place of individuals in society and political institutions. (F,Sp)

**POLS205 Government Internship** 3  
**Prerequisite:** None  
 This course offers the student a chance to observe the actual workings of the political process by participating in it. Participation will provide students an exposure to public policy making and an opportunity to reflect on that process through course assignments. The program covers all levels of government, from city and township through the federal level. (F,Sp)

**POLS206 Advanced Government Internship** 3  
**Prerequisite:** None  
 This course offers the student a chance to observe the actual workings of the political process by participating in it. Participation will provide students an exposure to public policy making and an opportunity to reflect on that process through course assignments. The program covers all levels of government, from city and township through the federal level. (F,Sp)

**POLS240 Introduction to Public Policy** 3  
**Prerequisite:** Reading Level 5  
 This course will provide an analysis of political and organizational processes which influence the formulation and implementation of public policy. Special attention will be given to the formulation, implementation, and evaluation of various selected public policies. Further, the course is intended to develop some skills for the evaluation and design of policies. (F,Sp)

**POLS250 US & Mich Political Parties & Elections** 3  
**Prerequisite:** Reading Level 5 and Writing Level 6  
 Emphasizes origins, structure, and functions of US and Michigan political parties. Examines the election process and factors influencing election results. Emphasis is placed on the importance of organizing effective political action and citizen participation, and the role of interest groups in American and Michigan politics. (F)

**POLS260 Comparative Political Systems** 3  
**Prerequisite:** Reading Level 5 and Writing Level 6  
 An introduction to the institutions, processes, and policies of political systems throughout the world. The course will compare political cultures and behavior in the United States, the industrial nations of Europe and Asia, and the developing nations, with special emphasis on the themes of democracy, participation, and political change. (F,Sp)

**POLS270 International Relations** 3  
**Prerequisite:** Reading Level 5 and Writing Level 6  
 A course in contemporary international relations, with emphasis on the effect political cultures in different countries have on the international system. Concepts, theories, and rudimentary methods of comparison and analysis are surveyed. The relationship between international politics and U.S. foreign and domestic policy is explored. (F,Sp)

**POLS295 Independent Study in Political Science** 1-4  
**Prerequisite:** Department Approval  
 An opportunity for self-directed learners to explore topics related to, but not taught in the curriculum. Students spend at least two hours per week for each credit. A detailed proposal must be submitted by the student for approval by the Department and supervising instructor prior to registration. (F,Sp,Su)

**PSYC - Psychology**

**PSYC175 Psychology of Death: Prep for Living** 3  
**Prerequisite:** Reading Level 5  
 Examines psychological theories, concepts, and research that pertain to the study of death and personal death awareness. Topics include cross-cultural and historical perspectives, health care systems, medical ethics, grief/loss issues, funerals and body disposition, legal and social issues, death in modern society, suicide and beliefs about life after death. (Sp)

**PSYC200 Introduction to Psychology** 4  
**Prerequisite:** Reading Level 5  
 The basic orientation to the field of psychology, designed as a general survey and as preparation for advanced courses in the field. Topics include methods, nervous systems, intelligence, development, learning, memory, personality, abnormality, therapy, and social behavior. (F,Sp,Su)

**PSYC202 Psychology of Personality** 3  
**Prerequisite:** Minimum 2.0 in PSYC200 and Reading Level 5 and Writing Level 6  
 A survey of the leading theories of personality and personality development. Topics include Freudian/psychodynamic, trait, behavioral, humanistic, and Yoga/Buddhist theories, assessment of personality, and major personality theorists. (F,Sp,Su)

**PSYC203 Social Psychology** 3  
**Prerequisite:** Minimum 2.0 in (PSYC200 or SOCL120) and Reading Level 5 and Writing Level 6  
 A theoretical and empirical approach to understanding individual social and group behavior. Examines the person and the social environment with a focus on attitudes, attributions, interpersonal and intrapersonal behavior, and group processes. (F,Sp)

**PSYC205 Human Growth and Development** 3  
**Prerequisite:** Minimum 2.0 in PSYC200 and Reading Level 5 and Writing Level 6  
 A study of the human life cycle from conception to death. Designed to investigate, describe, and explain changes in the physical, social, emotional, and cognitive areas that are a result of the continuous interaction of maturation and experience. (F,Sp,Su)

**PSYC209 Cognitive Psychology** 3  
**Prerequisite:** Minimum 2.0 in PSYC200 and Reading Level 5 and Writing Level 6  
 Cognitive psychology is the study of the human mind; its domain includes questions concerning how people perceive the world, remember information, use knowledge, understand language, learn, reason, and solve problems. (F)

**PSYC210 Brain and Behavior**

**Prerequisite:** Minimum 2.0 in (PSYC200 or BIOL121 or BIOL127) and Reading Level 5 and Writing Level 6

Brain and Behavior integrates psychology and biology, emphasizing how the nervous system controls behavior. The course provides an examination of the structure and function of the nervous system and the neurobiological bases of mental illness, drug abuse, movement, sleep, memory, feeding and drinking, sensory processing, and neurological disorders. (Sp)

**PSYC221 Child Psychology**

3

**Prerequisite:** Minimum 2.0 in PSYC200 and Reading Level 5 and Writing Level 6

Explores theories and principles of child cognitive and physical development from conception to puberty. The course covers psychological, sociological, and biological aspects of maturation and development. Topics include issues such as moral development, social development, language development, and cultural and cross cultural influences on the developing child. (F,Sp)

**PSYC222 Adolescent Psychology**

3

**Prerequisite:** Minimum 2.0 in PSYC200 and Reading Level 5 and Writing Level 6

Examines theoretical and empirical literature related to adolescence, emphasizing biological, psychological, and sociological aspects of maturation and development from puberty to young adulthood. Topics include the adolescent's search for identity; influences of culture, family, school and peer group; and problems and pathologies in adolescence. (Sp)

**PSYC240 Psychology of Human Sexuality**

3

**Prerequisite:** Reading Level 5

An exploration of psychological aspects of human sexuality, including research methods, response, identity, development, attraction and intimacy, communication, orientation, attitudes, diseases, and disorders. (F,Sp)

**PSYC250 Abnormal Psychology**

3

**Prerequisite:** Minimum 2.0 in PSYC200 and Reading Level 5 and Writing Level 6

A survey of the nature, development, diagnosis, and treatment of psychopathology viewed from a general-systems perspective (psychological, sociological, and biological). Major theories of causes, scientific research, and diagnostic and therapeutic techniques are studied with respect to various psychological disorders. (F,Sp,Su)

**PSYC295 Independent Study in Psychology**

1-4

**Prerequisite:** Department Approval

An opportunity for self-directed learners to explore topics related to, but not taught in the curriculum. Students spend at least two hours per week for each credit. A detailed proposal must be submitted by the student for approval by the Department and supervising instructor prior to registration. (F,Sp,Su)

**RDGR - Reading: Restricted****RDGR101 Personal Reading I**

1

**Prerequisite:** Reading Level 1 and Writing Level 1

One-credit laboratory course may be taken concurrently with other reading courses to provide extra instruction and practice. One-to-one instruction. (May repeat for credit three times.) (F,Sp,Su)

**RDGR102 Personal Reading II**

**Prerequisite:** Reading Level 1 and Writing Level 1

Two-credit laboratory course may be taken concurrently with other reading courses to provide extra instruction and practice. One-to-one instruction. (May repeat for credit three times.) (F,Sp,Su)

**RDGR103 Personal Reading III**

3

**Prerequisite:** Reading Level 1 and Writing Level 1

Three-credit laboratory course may be taken concurrently with other reading courses to provide extra instruction and practice. One-to-one instruction. (May repeat for credit three times.) (F,Sp,Su)

**READ - Reading****READ100 Reading Laboratory**

4

**Prerequisite:** Reading Level 1 and Writing Level 1

Designed to teach fundamental reading skills through small group/individualized instruction. Intended for students whose reading skills lie within the READ Level 1 literacy range as indicated by the College Placement Test. (F,Sp,Su)

**READ108 Individualized Reading**

4

**Prerequisite:** Reading Level 3 and Writing Level 2

Designed for average readers, especially adults in the working community, who wish to improve their reading proficiency with one-on-one/small group instruction and directed practice. Students concentrate on areas that need strengthening. (May repeat for credit three times.) (F,Sp,Su)

**READ111 Reading: Essential Strategies**

4

**Prerequisite:** Reading Level 2 and Writing Level 2

Designed to provide a transition from mastery of basic reading skills and individualized tutorial literacy instruction to a mainstream, classroom learning experience. Includes emphasis in reading for main ideas, vocabulary development, improving comprehension, drawing conclusions from implied meaning, and application of techniques to insure academic survival. (F,Sp,Su)

**READ114 Reading Skills**

4

**Prerequisite:** Reading Level 3 and Writing Level 2

Designed to increase basic comprehension skills, build vocabulary, and prepare students for college-level reading through the exploration of effective study techniques. (F,Sp,Su)

**READ116 Reading Comprehension**

4

**Prerequisite:** Reading Level 4 and Writing Level 4

Designed to extend beyond reading comprehension at the literal level, develop inferential ability and recognition of structure and expository patterns in reading and increase reading rate for greater reading efficiency. Additionally, attention is given to vocabulary improvement, multiple purposes of reading, importance of flexibility in reading, and increased concentration. (F,Sp,Su)

**READ118 Introduction to Phonics**

4

**Prerequisite:** Reading Level 1 and Writing Level 1

Explores relationship of English language sounds to their corresponding printed alphabetical letters and letter combinations. Examines rules governing variations in these sounds, the process of syllabication, accent, the dictionary pronunciation system, structural analysis of words, and the relationship of phonics to reading and spelling. (F,Sp)

**READ165 Critical Reading** 2  
**Prerequisite:** Reading Level 5 and Writing Level 4  
 This course is designed to go beyond reading comprehension at the literal level and to develop in the individual the ability to grasp implied meanings and draw conclusions. The reader must also be able to perceive the structural and developmental pattern in written material and to judge rationally what he or she reads. (F,Sp,Su)

**READ175 Speed Reading - Adv Vocabulary** 2  
**Prerequisite:** Reading Level 5 and Writing Level 4  
 Designed for the student of an average or better-than-average reading ability. Increases reading rate and comprehension for greater efficiency in studying and in general reading. Special attention is given to vocabulary improvement, the multiple purposes of reading, the importance of flexibility in reading, and increased concentration. (F,Sp,Su)

**REAL - Real Estate**

**REAL271 Introduction to Real Estate** 2  
**Prerequisite:** None  
 Overview of the real estate business. Emphasis on points of law and real estate principles useful to the beginning salesperson and/or potential buyer, seller, or investor. (F,Sp)

**REAL273 Real Estate Investment** 3  
**Prerequisite:** None  
**Recommended:** REAL271 or REAL274  
 The emphasis of this course is on investment analysis, financing, depreciation, capital gains, exchanging, and federal tax implications of real estate acquisitions, ownership, and disposal. (F)

**REAL274 Real Estate License Exam** 3  
**Prerequisite:** Reading Level 5  
 Intense study in the fundamentals of real estate. Preparation for the State of Michigan License Examination, administered by the Applied Measurement Professionals (AMP). This class meets statutory requirements including four hours in fair housing. (F,Sp,Su)

**REAL275 Real Estate Financing** 3  
**Prerequisite:** None  
 This course covers the significance and nature of mortgage lending, mortgage money markets, sources, types of mortgages, instruments, qualifying, the land contract and its use, administration of a mortgage loan, and a loan portfolio and methods of foreclosure. (F,Sp)

**REAL277 Property Management** 3  
**Prerequisite:** None  
 Covers management and the market, marketing residential and commercial rental space, creating an organized management plan, tenant and landlord laws, rent collection, leases, tenant screening, fair-housing requirements, tenant-owner relations, accounting for investment properties, real estate as an investment, managing apartments, office space, retail stores, and special-purpose buildings. (F,Sp)

**REAL279 Residential Appraisal** 3  
**Prerequisite:** None  
 This is a survey course on the appraisal of the single family residence. It is designed to expose the student to the basic economic, political, social, and environmental foundations upon which real estate valuation rests. The student will then encounter the processes by which freestanding, single family dwellings are valued. Students will also be acquainted with professional standards and ethics. (F)

**REAL280 Real Estate Law** 3  
**Prerequisite:** None  
**Recommended:** REAL271 or REAL274  
 Topics covered in this course include: land and its elements, land titles, land interests, abstracts and title insurance, deeds, easements, liens, mortgages, land contracts, foreclosures and landlord-tenant relations, private land-use controls including restrictions, condominiums, and tax policies pertaining to real estate. (Sp)

**RELG - Religion**

**RELG211 World Religions I** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
 This course describes and analyzes the beliefs and practices of Hinduism, Jainism, Buddhism, Sikhism, Confucianism, and Taoism in cultural context, from their origins to the present. It examines their influence on literature and the arts, beliefs and values, socioeconomic and political systems, and science and technology in world civilizations. (F)

**RELG212 World Religions II** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
 This course describes and analyzes the beliefs and practices of Judaism, Christianity, Islam, and other Western religions in cultural context, from their origins to the present. It examines their influence on literature and the arts, beliefs and values, socioeconomic and political systems, and science and technology in world civilizations. (Sp,Su)

**RELG241 Old Testament Literature** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** WRIT121 or WRIT131  
 This course surveys the content of Judaism's Bible (Christianity's Old Testament) in its original Hebrew cultural/religious context, using insights of modern critical scholarship. Origins and early development of Hebrew religious beliefs and practices are examined. (F)

**RELG242 New Testament Literature** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
**Recommended:** WRIT121 or WRIT131  
 This course surveys the content of Christianity's New Testament in its original Hebraic and Greco-Roman context, using insights of modern critical scholarship. Origins and early development of Christianity and its religious beliefs and practices are examined. (Sp)

**RELG250 Religions of East Asia** 4  
**Prerequisite:** Reading Level 5 and Writing Level 6  
 This course surveys the origins and development of East Asian religions. The religious beliefs and practices of Confucianism, Taoism, Buddhism (Mahayana and Tibetan), and Shinto are examined in terms of their vital role in the development of ancient and modern East Asian civilizations. (Sp)

**SCIN - Science Technology Internship**

**SCIN287 Science Technology Internship** 4  
**Prerequisite:** Minimum 2.0 in (CHEM151 and CHEM161) and Department Approval  
 This course provides on-the-job training for an applied degree in science technology. Placement is made at an approved training site to earn credits for satisfactory work performance. This internship may be a paid or unpaid work experience. Students will apply knowledge and skills learned in academic courses to real world situations. (F,Sp,Su)

**SCIS - Science Seminars****SCIS296 Directed Histotechnological Studies** 4**Prerequisite:** Reading Level 4 and Writing Level 4 and Math Level 4**Restriction:** Histologic Technician Certificate of Completion**Recommended:** High School Chemistry and Biology

This course gives students the opportunity to learn laboratory skills in Histotechnology. Histotechnology is the preparation of tissue specimens for microscopic evaluation. Students are challenged to analyze/evaluate their skills in safety, tissue processing, embedding, microtomy, special staining, quality assurance, problem solving and technical writing. (F,Sp)

**SCIS297 Independent Study in Science** 1-4**Prerequisite:** Department Approval

An opportunity for self-directed learners to explore topics related to, but not taught in the curriculum. Students spend at least two hours per week for each credit. A detailed proposal must be submitted by the student for approval by the Department and supervising instructor prior to registration. (F,Sp,Su)

**SDEV - Student Development****SDEV100 Student Development Seminars** .25-1**Prerequisite:** None

This series of seminars provides students and members of the community with opportunities for personal growth. Topics are relevant to current events and community needs. The discussions and activities will allow students to sample and explore a wide variety of areas related to personal and professional development. (F,Sp)

**SDEV103 Preventing Parent Burnout** 1**Prerequisite:** None

This course is designed to facilitate an understanding of parent burnout and its impact on mental and physical functions. The class will address causes, stages and symptoms, family and relationship dynamics, and problem solving. The course will provide multiple skills and mechanisms to cope with stress and prevent parent burnout. (F,Sp,Su)

**SDEV107 Getting Started in College** 1-2**Prerequisite:** Department Approval

This course is designed to offer supplemental instruction to Language Skills lab courses as determined by students and faculty. Topics may include time management, note taking, goal setting, choices and attitude. The activities will allow students to improve in a wide variety of areas related to student and personal development. (F,Sp)

**SDEV118 Stretching Your Dollars** 2**Prerequisite:** None

Assistance is given in very basic money management, budget procedures, record keeping, wise shopping practices, low-cost entertainment and recreation, effective debt payment methods, and financial goal-setting and planning. Consumer awareness and problems in the marketplace will also be addressed. (F,Sp,Su)

**SDEV121 Exploring Your Potential** 2**Prerequisite:** None

This course is designed to help each person identify past and present achievements which suggest the presence of strengths and potential. The goal of this class is greater realization of one's potential through self-determination. (F,Sp)

**SDEV123 Career Bridge** 2**Prerequisite:** None

Career Bridge enhances a smooth transition to college course work by helping the student identify a career direction, learn techniques of study, and build confidence in the pursuit of his or her educational goal. Positive behavioral choices will also be taught, including time management, the elimination of self-defeating behaviors, and increased self-esteem. (F,Sp,Su)

**SDEV124 Techniques of Study** 2**Prerequisite:** Reading Level 3

Students examine their study habits and work toward practicing skills to enhance classroom performance. Classes include weekly lectures, discussions, and assignments. Skills covered include goal-setting, time management, notetaking, reading and memory strategies, library use, and taking exams. A valuable aid for beginning and advanced students. (F,Sp,Su)

**SDEV125 Career Planning** 2**Prerequisite:** None

Students learn a career planning process by identifying their interests, values, and skills through a variety of self assessment exercises. Students will utilize available resources to research career options and participate in classroom discussions on topics relating to career decision-making. (F,Sp,Su)

**SDEV126 Self-Defeating Behavior** 2**Prerequisite:** None

The goal of this course is to learn how self-defeating behaviors begin and are maintained, and how they can be eliminated. Behavior change is aimed at teaching people how to live life more fully and happily by identifying and cultivating life-giving behaviors. (F,Sp,Su)

**SDEV130 Job Search Skills** 1**Prerequisite:** None

Skills and techniques in the job search process are taught. Course content covers filling out application, writing resumes and cover letters, interviews, and other techniques used in seeking employment. Group discussions focus upon personal attitude toward job hunting. (F,Sp,Su)

**SDEV135 Tools for College Success** 2**Prerequisite:** Reading Level 3

This course provides an introduction to the college experience and to skills that students need to be successful. Topics covered include academic and self-management issues that affect student performance, such as goal-setting, study skills, time management, communication, relationships, career planning, problem-solving, finances and health. (F,Sp,Su)

**SDEV140 Online Learning Skills** 1**Prerequisite:** None

Course provides an introduction to online learning. Students will receive training and information on skills needed for online college classes, including Blackboard (course software), internet research, independent learning, online communications, virtual group projects, chat room usage, discussion board postings, online student services, technical support and other relevant study skills. (F,Sp,Su)

- SDEV142 Assertiveness I** 2  
**Prerequisite:** None  
 This course teaches assertiveness. Assertiveness is behavior where a person expresses her or his opinions, feelings, beliefs, wants, personal rights, and values in a way that respects the rights of others. Techniques covered teach participants to identify and practice exercising interpersonal rights and assertive skills. (F,Sp,Su)
- SDEV169 Women as Winners** 1  
**Prerequisite:** None  
 This course is designed to offer participants new tools for insight, self-awareness, and understanding so that they can learn to set their own goals, emancipate themselves from the boundaries they have set for themselves, and, therefore, learn to become more authentic and self-actualizing. (F,Sp,Su)
- SDEV190 Success Group** 1  
**Prerequisite:** None  
 Designed to stress improvement of academic performance, the course provides mutual support and deals directly with the problems of underachievement. Students will learn to set and achieve short-term goals, identify motives and attitudes, and study behaviors that lead to success and those that are related to failure. (F,Sp,Su)
- SDEV192 Counseling for College Success** 2  
**Prerequisite:** None  
 Designed to stress improvement of academic performance, the course provides mutual support and is solution-focused on setting and achieving short-term goals. Students learn to identify motives, attitudes, and behaviors that lead to success. Group interaction will enhance understanding. (F,Sp,Su)
- SDEV195 Build Healthy Relationships I** 2  
**Prerequisite:** None  
 For those who wish to take a serious look at "what helps" and "what hurts" in building human relationships. Insights can be applied to any type of relationship and will help participants focus on changes they can/need to make in building a healthier relational lifestyle. (F,Sp,Su)
- SDEV204 Self-Defense and Women I** 1  
**Prerequisite:** None  
 This seminar is a combination of consciousness-raising and skill-building experiences intended to increase students' understanding, resources, and skills in sexual assault prevention and self-defense. Self-defense techniques taught in this seminar will focus on responses to unarmed attacks. (F,Sp,Su)
- SDEV205 Self-Defense and Women II** 1  
**Prerequisite:** SDEV204 or concurrently  
 This seminar is both a review and expansion of the techniques and skills taught in Women and Self-Defense I (SDEV204). Self-defense techniques taught in this class will focus on "ground defense," responses to armed attacks, multiple attackers, and special assaultive situations. (F,Sp,Su)
- SDEV211 Leadership Practicum II** 2  
**Prerequisite:** Minimum 2.0 in SDEV210  
 This course provides further opportunity for students to apply leadership skills. Emphasis is placed on participation in the Student Recognition Banquet, serving on campus committees; as Student Ambassadors, on and of campus recruitment and other Enrollment Services activities and college functions. Community service is also required. (Sp)
- SDEV225 Parenting in the Millennium** 2  
**Prerequisite:** None  
 This course will help parents move from "unconscious" to "conscious" parenting, changing from a parental domination to a relationship-centered model. The influence of childhood on parenting style, impact of communication in child-rearing, and understanding the power of the child/parent relationship are included. (F,Sp)
- SDEV237 Black Women's Awareness** 1  
**Prerequisite:** None  
 This class is an exploration of concerns and issues confronting the Black woman in America today. Students will have the opportunity to share their viewpoints and life experiences in response to such questions as: Who is the African-American woman? What are her needs? How can those needs be met? (F,Sp)
- SDEV240 Empathy Training** 2  
**Prerequisite:** None  
 The student will learn how to use empathy as a technique to deal with emotions, values, and decision making in the communication process. The skills will be taught in a small group emphasizing a supportive, experiential atmosphere. (F,Sp,Su)
- SDEV245 Dealing with Stress** 1  
**Prerequisite:** None  
 This course is designed to promote awareness of how stress affects mental, emotional and physical health, and behavior. The goal is to help participants to achieve lifetime coping skills. Topics include personal stressors, mental and physical coping strategies, dietary influences, communication, job or role stress, coping with loss. (F,Sp,Su)
- SIGN - Sign Language**
- SIGN160 Introduction to the Deaf Community** 3  
**Prerequisite:** Reading Level 5  
 This course is designed to introduce the student to pathological and cultural perspectives on deafness and the implications those perspectives have for persons who are deaf. Elements of the communications process, nonverbal communication, group dynamics, research and oral presentation skills will also be covered, via lectures, readings and group discussions. (F,Sp,Su)
- SIGN161 American Sign Language I** 3  
**Prerequisite:** Reading Level 5  
**Recommended:** Minimum 2.0 in SIGN160 or concurrently  
 This course provides basic knowledge of American Sign Language vocabulary and grammar. Pantomime is also used to explore nonverbal communication and its function within ASL. Elements of the communication process, ASL presentation skills, and group dynamics will also be covered. Designed for students intending to become sign language interpreters. (F,Sp,Su)
- SIGN162 American Sign Language II** 3  
**Prerequisite:** None  
**Recommended:** Minimum 2.0 in SIGN161  
 Designed to increase students' knowledge and use of American Sign Language vocabulary and grammar, as well as to focus on specific grammatical elements for more in-depth analysis and practice. Intended for students who plan to become sign language interpreters. (F,Sp,Su)

<p><b>SIGN163 American Sign Language III</b> 3  <b>Prerequisite:</b> None  <b>Recommended:</b> Minimum 2.0 in SIGN162            Designed to provide additional vocabulary and synthesis of grammatical elements of American Sign Language through expressive and receptive use of conversational sign language. Intended for students who plan to become sign language interpreters. (F,Sp,Su)</p>	<p><b>SIGN240 Interpreting/Transliterating</b> 3  <b>Prerequisite:</b> Successful ITP Screening            American Sign Language vocabulary will continue to be developed while learning about the interpreting process. Students will analyze text and demonstrate the ability to facilitate communication in both ASL sentence structure or English word order. Course is designed for students intending to be sign language interpreters. (F)</p>
<p><b>SIGN164 American Sign Language IV</b> 3  <b>Prerequisite:</b> Minimum 2.0 in SIGN163            This course is intended to build conceptual understanding and use of American Sign Language. Students will develop American Sign Language skills by interpreting in ASL paragraphs which are presented in English context. Designed for students intending to become sign language interpreters. (F)</p>	<p><b>SIGN250 Deaf Culture and History</b> 3  <b>Prerequisite:</b> Minimum 2.5 in SIGN163            This course looks closely at the unique experiences of those in the deaf community. It examines the history of the deaf community in America and the sociology of the hearing-impaired (both deaf and the hard-of-hearing). Designed for students intending to become sign language interpreters. (Sp)</p>
<p><b>SIGN166 Fingerspelling</b> 3  <b>Prerequisite:</b> Minimum 2.0 in SIGN161  <b>Recommended:</b> SIGN162 or concurrently            This course provides the student with concentrated instruction and practice in both expressive and receptive fingerspelling and numbering skills. Designed for students intending to become sign language interpreters. (F,Sp,Su)</p>	<p><b>SIGN260 Linguistic Principles of ASL</b> 3  <b>Prerequisite:</b> Minimum 2.0 in SIGN163            An overview of the linguistic organization of ASL, including a linguistic perspective on how ASL is learned and how it is (and is not) influenced by English. Topics relevant to interpreting, such as language variation and translation, will be emphasized. Designed for students intending to become sign language interpreters. (F)</p>
<p><b>SIGN167 Beginning Sign to Voice</b> 3  <b>Prerequisite:</b> None  <b>Recommended:</b> Minimum 2.0 in SIGN162            Designed to increase the student's receptive skills in conversational sign language focusing on comprehension of the various manual communication systems utilized by deaf persons. Sign-to-voice techniques and practice will be introduced through use of prepared videotapes. Intended for students who plan to become sign language interpreters. (F,Sp,Su)</p>	<p><b>SIGN261 Principles of Interpreting</b> 3  <b>Prerequisite:</b> Successful ITP Screening            Surveys professional interpreting through lecture, role-playing, and classroom discussion. Introduces the ethics of interpreting and, roles and responsibilities of the professional interpreter. Examines necessary skills of the interpreter in various settings: educational, mental health, vocational rehabilitation, legal, religious, phone, television, medical, deaf, blind, and minimal language skills. (F)</p>
<p><b>SIGN168 Expressive Manual Communication</b> 2  <b>Prerequisite:</b> Minimum 2.0 in SIGN162            This course focuses on synthesizing grammatical elements of American Sign Language and using them in an expressive mode. It creates awareness of conversational behaviors used by the deaf community and provides practice of those behaviors in classroom and other settings. Designed for students intending to become sign language interpreters. (Su)</p>	<p><b>SIGN263 Intermediate Sign to Voice</b> 3  <b>Prerequisite:</b> Minimum 2.5 in (SIGN240 and SIGN261)            This course develops and refines necessary basic skills and fluency in receptive sign language and for voicing all levels of communication of deaf individuals. Techniques taught include interpreter task analysis, listening, attending, internal message formulation, vocabulary search, and monitoring output. Designed for students intending to become sign language interpreters. (Sp)</p>
<p><b>SIGN169 Receptive Communication</b> 2  <b>Prerequisite:</b> Minimum 2.0 in (SIGN163 or concurrently) and (minimum 2.0 in SIGN167 or concurrently)            This course enhances the student's receptive and voicing skills, specifically skills needed to pass the Interpreter Training Program Screening Assessment (ITP Test), such as ASL vocabulary recognition, English sentence structure, and vocal tone and volume. Topics will be covered using videos, lectures, guest signers, and in-class activities. (Su)</p>	<p><b>SIGN264 Advanced Sign to Voice</b> 3  <b>Prerequisite:</b> Minimum 2.5 in SIGN263            This course provides advanced skill development and fluency in voicing for all communication levels of deaf persons. Techniques taught are voice projection, breathing and relaxation, analysis of sign information, anticipation and prediction, closure, modality switching, correction, image search, decalage, and pacing. Designed for students intending to become sign language interpreters. (Sp)</p>
<p><b>SIGN176 Advanced Fingerspelling</b> 2  <b>Prerequisite:</b> Minimum 2.0 in SIGN166            This course provides the student with advanced concentrated instruction and practice in both expressive and receptive fingerspelling skills. Designed for students intending to become sign language interpreters. (F,Sp,Su)</p>	<p><b>SIGN265 Advanced Interpreting/Transliterating</b> 3  <b>Prerequisite:</b> Minimum 2.5 in SIGN263            This course continues the development of skills necessary for interpreter evaluation/qualification. Students will be provided with simulated testing situations using interactive videotapes of hearing/deaf individuals requiring students to interpret/transliterate. Designed for students intending to become sign language interpreters. (F)</p>

- SIGN266 Mock Quality Assurance (QA)** 2  
**Prerequisite:** Minimum 2.5 in SIGN263  
 This course provides students with simulated testing interpreter/transliterating settings using interactive videotapes of hearing and deaf individuals with the purpose of developing skills necessary for interpreter evaluation. Designed for students intending to become sign language interpreters. (Su)
- SIGN267 Sign Internship I** 3  
**Prerequisite:** Minimum 2.5 in (SIGN240 and SIGN261)  
 Combines student transliterated lectures and supervised placement in various interpreting settings to allow directed observation and application of practical interpreting skills. Students will spend an additional 8 hours a week in their placement setting. Designed for students intending to become sign language interpreters. (Sp)
- SIGN268 Sign Internship II** 3  
**Prerequisite:** Minimum 2.5 in SIGN267  
 Combines student interpreted lectures and supervised placement in various interpreting settings to allow directed observation and application of practical interpreting skills. Students will spend an additional 8 hours a week in their placement setting. Designed for students intending to become sign language interpreters. (Su)
- SIGN294 Sign Language Interpreting Seminar** 3  
**Prerequisite:** Minimum 2.5 in SIGN266  
 Special topics for intermediate and advanced interpreters. Topics cover a broad range of subjects related to the interpreting field and include preparation for state and national exams. (F,Sp,Su)
- SIGN295 Independent Study in Sign Language** 1-3  
**Prerequisite:** Department Approval  
**Recommended:** Minimum 2.0 in SIGN261  
 An opportunity for self-directed learners to explore topics related to, but not taught in the curriculum. Students spend at least two hours per week for each credit. A detailed proposal must be submitted by the student for approval by the Department and supervising instructor prior to registration. Restricted to students intending to become sign language interpreters. (F,Sp,Su)

### SOCL - Sociology

- SOCL120 Introduction to Sociology** 4  
**Prerequisite:** Reading Level 5  
 A survey of major theoretical perspectives, concepts, and methods of sociology. Emphasis is placed on societal transformation, social organization, culture, cultural diversity, socialization, social stratification, social institutions, and social change within a global context. (F,Sp,Su)
- SOCL180 Latinos in Contemporary U.S.** 3  
**Prerequisite:** Reading Level 5  
 A survey of social forces that have shaped the experience of Latinos in the U.S. An exploration of Latino relations with non-Latino groups and social institutions using a structural framework which considers race, class and gender. Emphasis is placed on the diversity of the Latino community and current social trends. (F)

- SOCL185 Introduction to African-American Studies** 3  
**Prerequisite:** Reading Level 5  
**Recommended:** (Minimum 2.0 in WRIT121 or WRIT131) or Writing Level 6  
 A survey of culture and social structure of people of African descent and their role in the making of the US society. Theories and concepts pertinent to understanding the development and dynamics of contemporary African-American experience will be explored. Topics include slavery, multiculturalism, civil rights movement and affirmative action. (Sp)
- SOCL254 Marriage and Family** 3  
**Prerequisite:** (Minimum 2.0 in SOCL120 or PSYC200) and Reading Level 5  
**Recommended:** (Minimum 2.0 in WRIT121 or WRIT131) or Writing Level 6  
 A survey of theoretical perspectives on the institutions of marriage and family. Topics include the historical context of family, gender roles, sexual behavior, values, psychological needs, divorce, parenting, family problems, and social policy. Variations in family types and lifestyles among diverse groups within the U. S. and elsewhere are examined. (F,Sp)
- SOCL255 Contemporary Social Problems** 3  
**Prerequisite:** Minimum 2.0 in SOCL120 and Reading Level 5  
**Recommended:** (Minimum 2.0 in WRIT121 or WRIT131) or Writing Level 6  
 This course is a theoretical and empirical survey of the nature and causes of social problems such as poverty, crime, racial and gender inequality, demographic and environmental changes, health care, education and family stability. Examples from other societies will be used for comparative analysis and establishing global links. (F,Sp,Su)
- SOCL260 Race and Ethnicity** 3  
**Prerequisite:** Minimum 2.0 in SOCL120 and Reading Level 5  
**Recommended:** (Minimum 2.0 in WRIT121 or WRIT131) or Writing Level 6  
 An introduction to the sociological study of race and ethnicity in the U.S. and globally. Emphasis is placed on racial and ethnic group formation, ethnic stratification, identity formation, immigration and struggles for equality. Racial and ethnic group experiences in western and non-western societies are traced historically and viewed comparatively. (F,Sp)

### SOCL295 Independent Study in Sociology

- 1-4  
**Prerequisite:** Department Approval  
 An opportunity for self-directed learners to explore topics related to, but not taught in the curriculum. Students spend at least two hours per week for each credit. A detailed proposal must be submitted by the student for approval by the Department and supervising instructor prior to registration. (F,Sp,Su)

### SOWK - Social Work

- SOWK101 Introduction to Social Work** 3  
**Prerequisite:** Reading Level 5 and Writing Level 6  
 This course introduces the principles of social work practice. Emphasis is on social work careers, description of methods, skills and standards of practice, definitions of the helping roles, survey of helping agencies and institutions, and overview of social issues and client needs relative to social work practice. (F,Sp,Su)



**SOWK205 Social Welfare** 3

**Prerequisite:** Minimum 2.0 in SOWK101 or minimum 2.5 in HUSE100  
This course introduces the definition and concept of social welfare, its history, programs, attitudes, values, and philosophy. It emphasizes the development of private and public services, changing patterns of services, the evolving changes in the Social Security Act and community action, with attention to current issues in social welfare policy. Offered odd years Spring Semester only. (Sp)

**SPAN - Spanish****SPAN115 Conversational Spanish I** 3

**Prerequisite:** None  
First course of a two-semester sequence in conversational Spanish. Designed for persons who have no knowledge of Spanish and who wish to develop basic conversational skills in the language. Course emphasizes pronunciation of Spanish sounds, practical vocabulary, culture, and essential grammar for communication. Class taught largely in Spanish. (F,Sp,Su)

**SPAN116 Conversational Spanish II** 3

**Prerequisite:** None  
**Recommended:** SPAN115 or equivalent  
Second course of a two-semester sequence in conversational Spanish. Designed for persons who have some knowledge of the language and wish to continue developing basic conversational skills. Course emphasizes practical vocabulary, some aspects of Hispanic culture, and essential grammar for communication. Class taught largely in Spanish. (F,Sp,Su)

**SPAN121 Elementary Spanish I** 4

**Prerequisite:** Reading Level 5  
First course of a two-semester sequence in elementary Spanish. Designed for persons with no knowledge of Spanish who wish to develop basic language skills. Elementary practice in listening comprehension, speaking, reading, and writing. Provides useful information about the Spanish-speaking world. Class taught largely in Spanish. (F,Sp,Su)

**SPAN122 Elementary Spanish II** 4

**Prerequisite:** Minimum 1.5 in SPAN121  
Second course of a two-semester sequence in elementary Spanish. Introduces more complex structures while developing a foundation in the essentials of the language. Emphasizes practice in listening comprehension, speaking, reading, and writing. Provides useful information about the Spanish-speaking world. Class taught largely in Spanish. (Sp)

**SPAN201 Intermediate Spanish I** 4

**Prerequisite:** Minimum 1.5 in SPAN122  
First course of a two-semester sequence in intermediate Spanish. Begins with review of grammar, and continues with intensive vocabulary building, listening comprehension, and writing compositions. Encourages conversation by introducing discussions about the cultures of the Spanish-speaking world. Class taught entirely in Spanish. (F)

**SPAN202 Intermediate Spanish II** 4

**Prerequisite:** Minimum 1.5 in SPAN201  
Second course of a two-semester sequence in intermediate Spanish. Continues a review of grammar, intensifies vocabulary building, strengthens listening comprehension and composition writing, and improves oral fluency through intense discussions on the cultures of the Spanish-speaking world. Class taught entirely in Spanish. (Sp)

**SPCH - Speech Communication****SPCH110 Oral Communication in the Workplace** 3

**Prerequisite:** Reading Level 5 and Writing Level 6  
Introduction to oral communication skills in business and technology. Students will learn to interact effectively in diverse workplace situations. Activities include participating in interviews, managing group dynamics, giving planned presentations, and using current technology to enhance business communication. (F,Sp,Su)

**SPCH120 Dynamics of Communication** 3

**Prerequisite:** Reading Level 5 and Writing Level 6  
Introduction to the theory and practice of speaking and listening effectively in interpersonal, group, and public communication situations. The course utilizes readings, lectures, discussions, learning activities, and oral and written assignments to help students both understand the communication process and become more skillful interpersonal, group (team), and public communicators. (F,Sp,Su)

**SPCH130 Fundamentals of Public Speaking** 3

**Prerequisite:** Reading Level 5 and Writing Level 6  
Helps beginning speakers develop skills and confidence needed to speak effectively to audiences in public situations. Students learn proper techniques for researching, developing, organizing, outlining, and delivering effective informative, panel and persuasive presentations. At the same time they learn interpersonal concepts that affect their work in group presentations. (F,Sp,Su)

**SPCH140 Interpersonal Communication** 3

**Prerequisite:** None  
Introduction to fundamental principles and skills of interpersonal communication. Students investigate techniques for interacting effectively in family, intercultural, and male/female relationships. Class discussions, learning activities, and assignments assist students in examining the impact of their communication on others and in developing effective interpersonal skills. (F,Sp,Su)

**SPCH260 Nonverbal Communication** 3

**Prerequisite:** None  
Introduction to the ways people communicate without words. Students investigate nonverbal communication theory and research and learn the messages that gestures, facial expressions, vocal cues, physical appearance, clothing, touch, distance, and time convey in American and foreign cultures. Students' nonverbal communication skills are enhanced through assignments and in-class learning activities. (F)

**SPCH270 Mass Communication** 3

**Prerequisite:** Reading Level 5 and Writing Level 6  
Introduction to broadcast, film, and print media and their impact on the individual and society. Students investigate theory and research on topics including values the media convey, media stereotypes, violence, news, advertising, and the role of media in political campaigns. Assignments and observational projects help students become enlightened media consumers. (Sp)

**SPCH280 Intercultural Communication** 3

**Prerequisite:** Reading Level 5  
Introduction to the theory and practice of successful intercultural communication. Students investigate how communication is affected by dimensions of cultures, cultural values, world views, relationships, and social institutions. Students will become ethical and skillful intercultural communicators. A grade of 2.0 or higher fulfills the Global Perspectives and Diversity Core requirement. (F,Sp)

**SPCH295 Independent Study in Speech**

1-4

**Prerequisite:** Department Approval

An opportunity for self-directed learners to explore topics related to, but not taught in the curriculum. Students spend at least two hours per week for each credit. A detailed proposal must be submitted by the student for approval by the Department and supervising instructor prior to registration. (F,Sp,Su)

**SPEL - Spelling Development****SPEL150 Spelling: College Prep**

1

**Prerequisite:** Reading Level 3 and Writing Level 4

This eight week course focuses on spelling rules and functions suited to various disciplines within the college and workplace. (F)

**STAT - Statistics****STAT170 Introduction to Statistics**

3

**Prerequisite:** (Minimum 2.0 in MATH121 or MATH126 or MATH130 or Math Level 8) and Reading Level 5 and Writing Level 4**Recommended:** Knowledge of Windows software

This is a survey course in statistics for students in social science, psychology, education, and other nonbusiness disciplines. Topics studied include descriptive statistics, probability, random variables, normal distribution, t distribution, confidence intervals, hypotheses testing, correlation, and linear regression. In addition, students will solve applied problems by completing required computer assignments using a standard statistical software package, such as Excel (F,Sp,Su)

**STAT215 Intro to Probability and Statistics**

4

**Prerequisite:** (Minimum 2.0 in MATH122 or MATH126 or MATH130 or MATH141 or Math Level 9) and Reading Level 5 and Writing Level 4**Recommended:** Knowledge of Windows software and MATH141

This is a first course in probability and statistics with emphasis on business applications. Topics studied include descriptive statistics, probability, random variables, normal distribution, t distribution, chi-square distribution, F distribution, confidence intervals, hypothesis testing, correlation, and linear regression. In addition, students will solve applied problems by completing required computer assignments using a professional statistical software package, such as SPSS. (F,Sp)

**STEC - Stage Technology****STEC100 Introduction to Stage Tech Industry**

2

**Prerequisite:** Department Approval

This course is an introduction to the stage technology industry for apprentices in the Michigan Stage Technician Apprenticeship Program. It presents the history and current status of the various segments of the industry and introduces basic skills, terminology, safety-concerns, and legal issues designed to prepare the apprentice for on-the-job training. (Su)

**STEC110 Stage Tech Field Experience**

1

**Prerequisite:** Department Approval

This course provides Stage Technology majors and MSTAP apprentices with off-campus, on-the-job training opportunities. Students will answer a variety of temporary job calls to support theatrical, arena, conference, sporting, and other events requiring the expertise of stage technicians. The student must be able to travel throughout mid-Michigan and to work odd hours. (F,Sp,Su)

**STEC120 Stage Lighting and Electricity**

3

**Prerequisite:** None

Beginning studies in basic electricity and lighting as they relate to the stage. Students will learn fundamentals of electricity, metering, dimming circuits, physics of light and optics, instrumentation, reading of a plot, and various schedules. The student will then apply them in a theater setting. (F)

**STEC122 Advanced Stagecraft**

3

**Prerequisite:** Minimum 2.0 in THEA114

Advanced techniques of stagecraft and elements design for the performing arts. Preparation of working drawings and cut lists; fabrication of the design; lighting design techniques and implementation. Application of color theory and textures to scene painting, lighting design, and costuming. Students will assist with set design, lighting, and construction for a theatre production. (Sp)

**STEC130 Audio/Visual Technology**

3

**Prerequisite:** None

An introduction to audio/visual equipment, principles and practices used in the stage technology industry with an emphasis on convention and trade show settings. Sound amplification, lighting control systems, simple video camera operation, and various projection devices will be included. (Sp)

**STEC140 Theatrical Make-Up/Wardrobe**

3

**Prerequisite:** None

Provides students with a working knowledge of basic principles of make-up application, wardrobe maintenance and procedures in a production environment. Prepares students to provide basic makeup and wardrobe services for live performing arts, including the theatrical play and dance productions, musicals and operas. An enrichment resource for community theater and schools. (F)

**STEC150 Stage and Arena Rigging**

3

**Prerequisite:** None**Recommended:** Basic Algebra

An introduction to rigging for the entertainment industry. The student will learn fundamentals of high steel, deck, grid, and stationary rigging. Rigging safety practices, safety hardware, rigging equipment, rigging hardware, and calculation of loads for the structure and hardware are covered. The student will apply these practices and equipment to stage and arena settings. (Sp)

**STEC290 Guided Independent Study**

1-4

**Prerequisite:** Department Approval**Recommended:** 75% completion of the Stage Technology Program

An opportunity for self-directed learners to explore topics of particular interest more thoroughly. Students will meet intermittently throughout the semester with an assigned faculty member for guidance and evaluation of progress. A proposal detailing the area of independent investigation must be submitted by the student prior to registration. (F,Sp)

**STEC296 STEC Internship**

2

**Prerequisite:** Department Approval**Recommended:** 80% completion of the Stage Technology Program

An off-campus worksite experience that serves as part of a capstone experience for stage technicians. Students will work at venues having a multi-event season and be involved in building, installing, and as members of running crew. Regularly scheduled progress reports will be given and discussed with the supervising faculty member. (F,Sp,Su)

**STEC298 Special Projects** 1-4  
**Prerequisite:** Department Approval  
**Recommended:** 75% completion of the Stage Technology Program  
 An opportunity for a group of learners to become involved in a common project that will allow each to develop additional skills or to hone present skills. Availability of academically appropriate projects and student interest determines the nature of the experience. (F,Sp)

**SURG - Surgical Technology**

**SURG100 Fundamentals of Surgical Technology** 3  
**Prerequisite:** Admission to Surgical Technology Program  
**Co-requisite Course(s):** SURG101 and SURG108 and SURG109 and SURG121 and SURG122  
 Introduction to role and function of the surgical technologist as a member of the surgical team. Lectures present all skills, procedures, and protocol necessary to participate in the operating room. (F)

**SURG101 The Surgical Patient** 2  
**Prerequisite:** Admission to Surgical Technology Program  
**Co-requisite Course(s):** SURG100 and SURG108 and SURG109 and SURG121 and SURG122  
 Lectures will present the protocol and procedures directly affecting the care and safety of the patient. This includes the ethical, legal, and moral responsibilities of the technologist, the concepts of patient care, and pre-operative routines. (F)

**SURG103 Surgical Asepsis** 2  
**Prerequisite:** None  
 This course defines and describes pathogenic microorganisms and the causes and prevention of infection in the hospital. The student will be introduced to sterilization, disinfection, and other methods of controlling microbial growth. (F,Sp)

**SURG107 Surgical Technology Review** 2  
**Prerequisite:** Must be an accredited program graduate or otherwise qualified to take the Surgical Technology National Certification Exam and Department Approval  
 This on-line review course will prepare students for the Surgical Technology National Certification Exam. Topics include surgical patient care; surgical asepsis; instruments; fundamentals of surgery; operative procedures; patient safety; positioning; confidentiality; and O.R. policies, standards and procedures. Newly developing, state-of-the-art technologies are examined and test taking skills are reviewed. (F,Sp)

**SURG108 Surgical Pharmacology** 2  
**Prerequisite:** Admission to Surgical Technology Program  
**Co-requisite Course(s):** SURG100 and SURG101 and SURG109 and SURG121 and SURG122  
 This course introduces the student to basic types of anesthesia, anesthesia agents, indications and contraindications of medications, and the calculations of maximum dosages of various drugs. The student will become familiar with a wide array of pharmacological agents specifically related to the peri-operative care being provided for the surgical patient. (F)

**SURG109 Basic Operative Procedures** 2  
**Prerequisite:** Admission to Surgical Technology Program  
**Co-requisite Course(s):** SURG100 and SURG101 and SURG108 and SURG121 and SURG122  
 This course introduces the student to basic types of surgical procedures with a primary focus on the sequential steps involved in these procedures. Surgical anatomy, physiology and pathophysiology will be addressed relative to basic surgical intervention. Students will become familiar with instrumentation, anticipatory skills, and surgical asepsis and surgical conscience. (F)

**SURG110 Advanced Surgical Procedures** 6  
**Prerequisite:** Successful completion of 1st semester of the Surgical Technology Program  
**Co-requisite Course(s):** SURG111 and SURG123 and SURG124  
 This course introduces the student to intermediate and advanced surgical procedures with a primary focus on the sequential steps involved in these procedures, higher difficulty cases, and specialized instrumentation. Surgical anatomy, physiology, and pathophysiology will be addressed. The biomedical sciences will also be addressed: robotics, physics, computers, and electricity. (Sp)

**SURG111 Surgical Specialty Components/Prof Prep** 2  
**Prerequisite:** Successful completion of 1st semester of the Surgical Technology Program  
**Co-requisite Course(s):** SURG110 and SURG123 and SURG124  
 This course focuses on preparing the student for life-long learning. An emphasis will be placed on advanced technologies, a look to the future of tele-surgery, the operating room ten years out, and advances in specialty surgeries. Preparation for the national certification exam will be provided in a review of core components. (Sp)

**SURG121 Applied Surgical Techniques I** 2  
**Prerequisite:** Admission to Surgical Technology Program  
**Co-requisite Course(s):** SURG100 and SURG101 and SURG108 and SURG109  
 This course covers the application of theory in the use of surgical supplies and equipment which will prepare students to scrub in for actual surgical procedures. A specified number of competencies will need to be successfully completed to advance to SURG122. (F)

**SURG122 Applied Surgical Techniques II** 3  
**Prerequisite:** Pass grade in SURG121 or concurrently  
**Co-requisite Course(s):** SURG100 and SURG101 and SURG108 and SURG109  
 This course prepares students for the actual operating room experience through application of theory and clinical skills in mock surgical procedures. Basic surgical procedures will be presented, with some hands-on experience utilizing surgical simulators. (F)

**SURG123 Applied Surgical Techniques III** 5  
**Prerequisite:** Successful completion of 1st semester of the Surgical Technology Program  
**Co-requisite Course(s):** SURG110 and SURG111  
 This clinical session at a hospital provides the student with the application of theory and clinical skills in basic and advanced surgical procedures and specialty areas. (Sp)

**SURG124 Applied Surgical Techniques IV** 5  
**Prerequisite:** Minimum 2.5 in SURG123 or concurrently  
**Co-requisite Course(s):** SURG110 and SURG111  
 A continuation of SURG123, this course is a clinical session at a hospital. It covers the application of theory and clinical skills in basic and advanced surgical procedures and surgical specialty areas. (Sp)

**SURG150 Surgical Technology Special Topics**

.25-8

**Prerequisite:** Determined by Unit Section

This course provides continuing education seminars for health professionals such as surgical technologists and operating room nurses. Specific up-to-date course content will vary with each seminar and will be related to the surgical team, surgical procedures, or surgical instrumentation. (F,Sp,Su)

**TDP - Truck Driver Training Program****TDTP110 Truck Driver Training I**

3

**Prerequisite:** Department Approval and Department of Transportation Physical

This is the initial course in a sequence of three. This course is intended to begin preparing the student for the State of Michigan CDL written exam and includes a review of D.O.T. rules and proper driver's log book reporting. Vehicle activities include vehicle inspection, drop and hook, and initial driving on secured roadways. (F,Sp,Su)

**TDTP111 Truck Driver Training II**

3

**Prerequisite:** Department Approval and Department of Transportation Physical

This is the second course in a sequence of three. Students will operate the vehicles on the driving range and local roads, developing the skills necessary to interact with highway traffic. Students must pass the CDL written test and obtain their temporary instructional permits during this course. (F,Sp,Su)

**TDTP112 Truck Driver Training III**

3

**Prerequisite:** Department Approval and Department of Transportation Physical

This is the final course in the Truck Driver Training Program. The students will complete range driving and backing, do local highway driving, and complete an extensive road trip. The CDL third-party exam will be administered during this course. (F,Sp,Su)

**TDTP201 Truck Driver Internship**

2-4

**Prerequisite:** Minimum 2.0 in TDTP112 and Department Approval

This course is a work site experience. Students will gain career experience by working with an employed truck driver who serves as a mentor. The student gains experience by applying knowledge gained in the classroom and in the College's truck fleet. (F,Sp,Su)

**THEA - Theatre****THEA110 Introduction to Theatre**

3

**Prerequisite:** Reading Level 5

Introduction to Theatre includes definition and analysis of theatrical art, incorporating script analysis, theatre history, the relationship between theatre and the culture from which it comes, and the roles of theatre practitioners. (F,Sp,Su)

**THEA114 Introduction to Technical Theatre**

3

**Prerequisite:** None**Restriction:** Theatre Majors

Introduction to design stagecraft for performing arts: basic elements of design and their relationship to performance, introduction to color theory — both paint and light, development of design concept, fundamentals of drafting, scale plan analysis, tool usage, shop safety, stage lighting, light plot interpretation, understanding organization of backstage productions. (F)

**THEA120 Introduction to Acting**

2

**Prerequisite:** None

Explores various acting techniques and introduces the beginning student to the skills necessary to maintain a sustained dramatic performance. Theatre games and improvisation exercises to overcome stage fright and to develop concentration and listening skills are heavily emphasized. Students present final short scene. (F,Sp,Su)

**THEA131 Studio Theatre Performance I**

1

**Prerequisite:** Theatre Studio Interview**Restriction:** Theatre Majors**Co-requisite Course(s):** THEA110 and THEA141 and THEA171

Course includes rehearsal, performance, and evaluation of a contemporary script. Focus is on an understanding and implementation of skills acquired in THEA141 and the relationships experienced between actor and director. (F,Sp)

**THEA132 Studio Theatre Performance II**

1

**Prerequisite:** Minimum 2.0 in THEA131**Restriction:** Theatre Majors**Co-requisite Course(s):** THEA143 and THEA173 and THEA181

Rehearsal, performance, and evaluation of a script which incorporates heightened language and movement. Focus is on expanding the actor's physical and vocal expressiveness. (Sp,Su)

**THEA140 Acting for Non-Majors**

2

**Prerequisite:** Minimum 2.0 in THEA120 or concurrently**Recommended:** THEA110

Fundamentals of acting, including improvisational techniques; mask work; the physical, vocal, and internal development of character; analysis and scoring by beats of a contemporary script. Non-majors only. (F,Sp)

**THEA141 Acting I - Contemporary**

2.5

**Prerequisite:** Theatre Studio Interview**Restriction:** Theatre Majors**Co-requisite Course(s):** THEA110 and THEA131 and THEA171

Fundamentals of acting, including improvisational techniques; the physical, vocal, and internal development of character; analysis and scoring by beats of a contemporary script. Majors only. (F)

**THEA143 Stage Voice for the Actor**

3

**Prerequisite:** Minimum 2.0 in THEA141**Restriction:** Theatre Majors**Co-requisite Course(s):** THEA132 and THEA173 and THEA181

Course will cover exercises in vocal production: posture, support, relaxation, resonance, projection, and enunciation. Focus will be on exercises to develop vocal flexibility from Rodenburg, Linklater, and/or Berry techniques. Students will experience vocal techniques which lead to greater emotional awareness and responsiveness. (Sp,Su)

**THEA150 Acting for the Camera**

3

**Prerequisite:** Minimum 2.0 in THEA131 or (FILM118 or concurrently)**Recommended:** THEA110 and THEA120

Acting techniques and methods relevant to camera work will be explored. Student work is videotaped and critiqued. Acting for the Camera applies and builds on fundamentals established in Introduction to Acting (F,Sp)

<p><b>THEA160 Stage Combat</b> 2  <b>Prerequisite:</b> None  <b>Recommended:</b> THEA120            Students learn to use a variety of weapons and hand to hand combat styles on stage. Students learn the style of combat used in theatre/film industry. Students explore fight scenes, basics of mechanics of choreographing fight scenes, and are instructed on basic safety procedures for choreographing/executing fight sequences. (F,Sp,Su)</p>	<p><b>THEA224 Special Subjects in Theater</b> 1-4  <b>Prerequisite:</b> Department Approval            Seminar: Special Subjects in Theater is offered each summer and allows students to take a variety of short-term courses in various theater techniques. The seminar will offer either state-of-the-art techniques or an opportunity to work with professionals. Seminars may include: stage combat, playwriting, new techniques in acting. (F,Sp,Su)</p>
<p><b>THEA171 Dramatic Form and Function I</b> 3  <b>Prerequisite:</b> Theatre Studio Interview  <b>Restriction:</b> Theatre Majors  <b>Co-requisite Course(s):</b> THEA110 and THEA131 and THEA141            An analysis of modern contemporary classics of the theatre. The student will read and analyze a minimum of eight contemporary scripts from Ibsen to Shepard. The student will develop a comprehensive production concept for one of these scripts. (F,Sp)</p>	<p><b>THEA233 Studio Theatre Performance III</b> 2  <b>Prerequisite:</b> Minimum 2.0 in THEA132  <b>Co-requisite Course(s):</b> THEA240 and THEA260 and THEA283            Students will rehearse and perform a Shakespeare play. (F)</p>
<p><b>THEA173 Movement for the Actor</b> 2  <b>Prerequisite:</b> Minimum 2.0 in THEA141  <b>Restriction:</b> Theatre Majors  <b>Co-requisite Course(s):</b> THEA132 and THEA143 and THEA181            Course will cover strategies developing student's physical endurance, reflect, flexibility, and grace. Students will learn the human inner experience in the sphere of human silence. Students may explore movement to music, mime, and/or dance styles and techniques from world cultures. For second-year theatre majors. (Sp,Su)</p>	<p><b>THEA235 Studio Theatre Performance IV</b> 3  <b>Prerequisite:</b> Minimum 2.0 in THEA233  <b>Co-requisite Course(s):</b> THEA241 and THEA271            This course provides the second-year Theatre major with an opportunity to act in a mainstage production. Through rehearsal, analysis and research, the student will intensively explore a character in a modern Realistic play. (Sp)</p>
<p><b>THEA181 Improvisation</b> 2.5  <b>Prerequisite:</b> Minimum 2.0 in THEA141  <b>Co-requisite Course(s):</b> THEA132 and THEA143 and THEA173            By using the improvisational techniques of mask work and developmental exercises, this course will train the student in long-term, in-depth character development. (Sp,Su)</p>	<p><b>THEA238 Theatre Company</b> 2  <b>Prerequisite:</b> Department Approval            Students will be given the opportunity to direct, design, produce, or perform in College-supported outdoor theatrical events in the amphitheatre or a comparable space. Students will also participate in company class, in which new ideas in acting training will be presented. (Su)</p>
<p><b>THEA210 Theatre History</b> 4  <b>Prerequisite:</b> Reading Level 5 and Writing Level 6  <b>Recommended:</b> THEA110            Examination of the history of drama from primitive times to the present, introducing the overall pattern of theatre history with emphasis on European and American development. Required for all majors (F,Sp)</p>	<p><b>THEA240 Acting II - Classics</b> 2.5  <b>Prerequisite:</b> Minimum 2.0 in THEA143  <b>Co-requisite Course(s):</b> THEA233 and THEA260 and THEA283            Students will explore the unique demands of acting and speaking Shakespeare and the qualities of his verse, including alliteration, assonance, rhymes, antithesis, puns, onomatopoeia, imagery, and iambic rhythms. Status, social, and historical context will be addressed. (F)</p>
<p><b>THEA220 Play Directing</b> 3  <b>Prerequisite:</b> Minimum 2.0 in (THEA110 or FILM118)  <b>Recommended:</b> THEA120 or THEA210            Introduction to the fundamentals of directing a play, including play analysis, stage composition and working with actors. Practical experience through scene work and class exercises will be emphasized. Students will demonstrate their mastery of the principles taught by directing and presenting a short one-act play for an audience. (F)</p>	<p><b>THEA241 Acting III - Advanced Realism</b> 2.5  <b>Prerequisite:</b> Minimum 2.0 in THEA240  <b>Co-requisite Course(s):</b> THEA235 and THEA271            Explores Stanislavski's System in detail. Students apply the System to the creation of a character in a Mainstage production. When appropriate, methods developed by Stanislavski's Russian and American adapters will be explored. (Sp)</p>
<p><b>THEA223 Independent Study in Theater</b> 1-3  <b>Prerequisite:</b> Department Approval            An opportunity for self-directed learners to explore topics related to, but not taught in the curriculum. Students spend at least two hours per week for each credit. A detailed proposal must be submitted by the student for approval by the Department and supervising instructor prior to registration. (F,Sp,Su)</p>	<p><b>THEA260 Dramatic Form and Function II</b> 3  <b>Prerequisite:</b> Minimum 2.0 in THEA143  <b>Co-requisite Course(s):</b> THEA233 and THEA240 and THEA283            Dramatic Form and Function II focuses on the writings of Shakespeare. Students will read a minimum of four of his plays, learning to discover the means by which he achieves his theatrical effects, and to decipher the many clues he gives to actors about their characters. Cultural and historical context is addressed. (F)</p>
	<p><b>THEA271 Dramatic Form and Function III</b> 3  <b>Prerequisite:</b> Minimum 2.0 in THEA260  <b>Co-requisite Course(s):</b> THEA235 and THEA241            An intensive study of one modern author. The historical context, aesthetic approach, biographical context, cultural context, and critical reception of the author's works will be addressed. (Sp)</p>

**THEA283 Audition Workshop** 2  
**Prerequisite:** None  
**Co-requisite Course(s):** THEA233, THEA240 and THEA260  
 Students will learn audition and resume preparation and will prepare and polish two contrasting monologues for auditions. Students will learn the audition and application processes for advanced training. (Sp)

**THEA285 Stage Makeup** 2  
**Prerequisite:** None  
 A course in the application of stage makeup to develop a character and to assist the actor in sustaining the character in performance. Emphasizes skills in the use of different kinds of makeup, hairstyling, and appearance changes. (Sp)

### TRVL - Travel and Tourism

**TRVL100 Travel Industry Operations** 3  
**Prerequisite:** None  
 In this course students will gain a working knowledge of the reference materials used in the travel industry, as well as industry terminology and overall travel industry operations. (F,Sp,Su)

**TRVL125 Destinations I** 3  
**Prerequisite:** None  
 Examine geography fundamentals as they affect tourism. Emphasis is on travel destinations in North, Central, and South Americas with specific information relative to client appeal. (F)

**TRVL130 Destinations II** 3  
**Prerequisite:** None  
 Examine geography fundamentals as they affect tourism. Emphasis is on travel destinations in Europe, Russia, and Africa with specific information relative to client appeal. (Sp)

**TRVL131 Destinations III** 3  
**Prerequisite:** None  
 Examine geography fundamentals as they affect tourism. Emphasis is on travel destinations in Asia, the Middle East and the Far East (including the Philippines, Japan, Australia, New Zealand and Oceania) relative to client appeal. (F)

**TRVL140 Airline Computer Reservation I** 3  
**Prerequisite:** None  
 The first of a three-course sequence utilizing the Worldspan reservation system. Hands-on application in the Travel Computer Lab gives students the skills required for creating airline computer reservation as well as airfare and fare rules. (F,Sp)

**TRVL145 Intro to Cruise Sales/Ground Transport** 3  
**Prerequisite:** None  
**Recommended:** Minimum 2.0 in TRVL100  
 This course explores the travel industry by developing an understanding of how to market cruises, railroads, car rentals, and motor coach travel for domestic and international destinations. (Sp)

**TRVL151 DS Alaska** .5  
**Prerequisite:** None  
**Recommended:** Registration with The Travel Institute  
 This course provides comprehensive and accelerated Destination Specialist exam preparation through The Travel Institute. This course covers Alaska's highlights, sales strategies and sample itineraries to assist the student in meeting and exceeding the client's travel needs. Upon successful completion of this course, students will be eligible to take the DS Certification Exam. (F,Sp,Su)

**TRVL152 DS Africa** .5  
**Prerequisite:** None  
**Recommended:** Registration with The Travel Institute

This course provides comprehensive and accelerated Destination Specialist exam preparation through The Travel Institute. This course covers Africa's highlights, sales strategies and sample itineraries to assist the student in meeting and exceeding the client's travel needs. Upon successful completion of this course, students will be eligible to take the DS Certification Exam. (F,Sp,Su)

**TRVL153 DS Caribbean** .5

**Prerequisite:** Registration with The Travel Institute  
 This course provides comprehensive and accelerated Destination Specialist exam preparation through The Travel Institute. This course covers the Caribbean's highlights, sales strategies and sample itineraries to assist the student in meeting and exceeding the client's travel needs. Upon successful completion of this course, students will be eligible to take the DS Certification Exam. (F,Sp,Su)

**TRVL154 DS East Asia** .5

**Prerequisite:** Registration with The Travel Institute  
 This course provides comprehensive and accelerated Destination Specialist exam preparation through The Travel Institute. This course covers East Asia's highlights, sales strategies and sample itineraries to assist the student in meeting and exceeding the client's travel needs. Upon successful completion of this course, students will be eligible to take the DS Certification Exam. (F,Sp,Su)

**TRVL155 DS Europe** .5

**Prerequisite:** Registration with The Travel Institute  
 This course provides comprehensive and accelerated Destination Specialist exam preparation through The Travel Institute. This course covers Europe's highlights, sales strategies, and sample itineraries to assist the student in meeting and exceeding the client's travel needs. Upon successful completion of this course, students will be eligible to take the DS Certification Exam. (F,Sp,Su)

**TRVL156 DS France** .5

**Prerequisite:** Registration with The Travel Institute  
 This course provides comprehensive and accelerated Destination Specialist exam preparation through The Travel Institute. This course covers France's highlights, sales strategies, and sample itineraries to assist the student in meeting and exceeding the client's travel needs. Upon successful completion of this course, students will be eligible to take the DS Certification Exam. (F,Sp,Su)

**TRVL157 DS Hawaii** .5

**Prerequisite:** Registration with The Travel Institute  
 This course provides comprehensive and accelerated Destination Specialist exam preparation through The Travel Institute. This course covers Hawaii's highlights, sales strategies, and sample itineraries to assist the student in meeting and exceeding the client's travel needs. Upon successful completion of this course, students will be eligible to take the DS Certification Exam. (F,Sp,Su)

**TRVL158 DS North America** .5

**Prerequisite:** Registration with The Travel Institute  
 This course provides comprehensive and accelerated Destination Specialist exam preparation through The Travel Institute. This course covers North America's highlights, sales strategies, and sample itineraries to assist the student in meeting and exceeding the client's travel needs. Upon successful completion of this course, students will be eligible to take the DS Certification Exam. (F,Sp,Su)

**TRVL159 DS South Pacific .5**

**Prerequisite:** Registration with The Travel Institute and Department Approval

This course provides comprehensive and accelerated Destination Specialist exam preparation through The Travel Institute. This course covers South Pacific's highlights, sales strategies, and sample itineraries to assist the student in meeting and exceeding the client's travel needs. Upon successful completion of this course, students will be eligible to take the DS Certification Exam. (F,Sp,Su)

**TRVL160 DS Western Europe .5**

**Prerequisite:** Registration with The Travel Institute

This course provides comprehensive and accelerated Destination Specialist exam preparation through The Travel Institute. This course covers Western Europe's highlights, sales strategies, and sample itineraries to assist the student in meeting and exceeding the client's travel needs. Upon successful completion of this course, students will be eligible to take the DS Certification Exam. (F,Sp,Su)

**TRVL168 CTA Exam Preparation 2**

**Prerequisite:** Registration with The Travel Institute and Department Approval

This course is an interactive, accelerated Certified Travel Associate certification course in preparation for The Travel Institute online exam. This course covers four skill areas: communication and technology, geography, sales and service, and the travel industry. Upon successful completion of this course, students will be eligible to take The Travel Institute CTA Certification Exam. (F,Sp,Su)

**TRVL169 CTC Exam Preparation 2**

**Prerequisite:** CTA Certification, registration with The Travel Institute, and Department Approval

This course is an interactive, accelerated Certified Travel Consultant certification course in preparation for The Travel Institute online exam. This course covers three skill areas: business development, contemporary issues, and professional development. Upon successful completion of this course, students will be eligible to take The Travel Institute CTC Certification Exam. (F,Sp,Su)

**TRVL170 Independent Travel Agencies 3**

**Prerequisite:** None

**Recommended:** TRVL100

Learn how to open a home based travel agency and host independent contractors. Includes an examination of co-ops, consortiums, and franchise options, as well as an overview for managing daily operations. (F)

**TRVL190 Internship 3**

**Prerequisite:** Department Approval

**Recommended:** Have completed a minimum of 30 credits

This 200 hour internship is a capstone course required for all Travel students that will provide hands-on experience in a travel operation faculty. The rotational work experience and required course projects will coincide with industry principles, techniques, skills, and procedures mastered in previous courses. Students are responsible to find their own internship site. (Sp,Su)

**TRVL200 Sales and Marketing for Travel & Tourism 3**

**Prerequisite:** None

**Recommended:** TRVL100

This course develops an understanding of marketing strategies by identifying client needs, product, price, and promotion. It develops professional sales skills, customer service skills as well as examines and develops advertising pieces. (F)

**TRVL210 Group Travel and Escorting Operations 3**

**Prerequisite:** None

**Recommended:** TRVL100

Learn how to organize and escort domestic and international group tours. Includes procedures for groups, marketing the tour package, recruiting, organizing, and how to become an effective tour manager. (Sp)

**TRVL250 Airline Computer Reservation II 3**

**Prerequisite:** Minimum 2.0 in TRVL140

The second of a three course series utilizing the Worldspan system which progresses to in-depth fare research and application, as well as fare rules, and hotel/car reservations for domestic and international travel. (F,Sp)

**TRVL265 Fundamentals of Business Travel 3**

**Prerequisite:** Minimum 2.0 in TRVL250

**Recommended:** Minimum 2.0 in (HMFS101 and TRVL145 and TRVL210 and TRVL230)

In this course students will learn how to manage the many issues surrounding business/corporate travel. Special requests, international reservations, fare rulings and routings, currency exchange, internet research, and frequent flyer program management for business/corporate travelers, as well as the customs, cultures, and protocol in international travel are emphasized. In addition, extended use of the Worldspan computer reservation system is utilized. (F,Sp)

**TRVL275 Travel Industry Practicum 3**

**Prerequisite:** Department Approval

In a worksite setting students will combine and analyze day-to-day industry challenges faced by travel associates and the travel industry. They will design, organize and present travel recommendations to potential clients through the coordination of information using the Internet, Microsoft Office, and Worldspan. Techniques for problem-solving, needs assessment, and industry analysis will be included. (F,Sp)

**VCBL - Vocabulary Improvement****VCBL150 Vocabulary: College Prep 1**

**Prerequisite:** Reading Level 3 and Writing Level 4

**Recommended:** READ118

This eight week course focuses on the acquisition of vocabulary appropriate to the various disciplines within the college and workplace. (F,Sp)

**VIET - Vietnamese****VIET121 Elementary Vietnamese I 4**

**Prerequisite:** Reading Level 5

This course is designed for students with little or no knowledge of Vietnamese. Students will acquire elementary reading, writing, speaking and listening skills, with particular emphasis given to tones and pronunciation. Cultural and traditional aspects will underlie every phase of learning. (F)

**VIET122 Elementary Vietnamese II 4**

**Prerequisite:** Minimum 1.5 in VIET121

A second semester of Vietnamese for students with an elementary knowledge of Vietnamese. Introduces more complex structures and patterns, and a more active use of the spoken and written language. Students will be able to read easy short stories, and communicate with native speakers at the elementary level on many topics. (Sp)

**WELD - Welding Technology****WELD100 Combination Welding** 4**Prerequisite:** None

This is a beginning theory and practice course which will introduce the safe operations and applications of oxyacetylene welding, torch cutting, plasma cutting, brazing and shielded metal arc welding. Practice will consist of these methods of joining steel in the horizontal, flat and vertical positions. Destructive testing will also be provided. (F,Sp,Su)

**WELD101 Advanced ARC Welding** 4**Prerequisite:** Minimum 2.0 in WELD100

Students will develop the skills necessary to produce quality multiple pass fillet and groove welds on steel plates. Conventional and low hydrogen electrodes are used in preparation of passing performance tests in all positions. Destructive testing methods, weld profiles and welding symbols as related to arc welding are introduced. (F,Sp,Su)

**WELD110 Gas Metal ARC Welding** 4**Prerequisite:** None

Provides technical understanding and applications of gas metal arc welding and flux cored arc welding. Fundamentals, safety, equipment adjustments, metal transfers and shielding gases will be covered. Develops manual skill in all positions on different thicknesses and types of metals, including mild steel, aluminum and stainless steel. (F,Sp,Su)

**WELD111 Gas Tungsten ARC Welding** 4**Prerequisite:** Minimum 2.0 in WELD100

Students will develop the skills, principles and applications of gas tungsten arc welding. Welds will be done on different thickness of ferrous and non-ferrous metals in all positions. Proper material cleaning, fit up and safety are also introduced. (F,Sp,Su)

**WELD120 Structural Fabrication and Inspection** 4**Prerequisite:** Minimum 2.0 in WELD101

Introduction to steel fabrication in accordance with the American Welding Society Structural Welding Code D1.1 applications and requirements. The student will be introduced to the numerous destructive and non-destructive methods of welding inspections. Satisfactory completion of this course will assist the student in passing a welding certification test. (F,Sp)

**WELD125 Structural Blueprint Reading for Welding** 2**Prerequisite:** Minimum 2.0 in MATH050 or Math Level 4

Blueprint and welding symbols are the universal language of the welding industry. This course is for students, apprentices, technicians and others who must develop the ability to read and accurately interpret blueprints. Teaches awareness of the advancement in metallurgy, welding processes, consumables and strict code enforcement used in industry today. (F)

**WELD140 Creative Welding** 2**Prerequisite:** None**Recommended:** Course work or experience in art/design

This is a course for people with an interest in artwork in a metal medium. Participants will become familiar with welding and cutting processes for the purpose of exploring creative expression. (F,Sp)

**WELD170 Special Topics in Welding** .25-8**Prerequisite:** None

This course offers students the opportunity to learn new or advanced skills in welding and other related topics. Specific content may vary with each offering but will be related to the Welding Program and profession. (F,Sp,Su)

**WELD191 Welding Project Lab** 1-4**Prerequisite:** Department Approval

An opportunity for students to expand upon welding skills in maintenance welding, production welding, resistance welding and/or tool and die welding, depending on the direction the student would like to take his/her welding skills. Actual projects must be discussed and agreed upon by both the instructor and the student. (Sp)

**WELD201 Tool and Die Welding** 3**Prerequisite:** Minimum 2.0 in (WELD101 and WELD111)

Theory and practice methods involved in welding various alloyed metals, preheating and postheating of metals, recognition of materials, alloying elements and their effects. The proper usage of air, oil and water hardening steels will also be covered. (F,Sp)

**WELD205 Pipe Welding** 4**Prerequisite:** Minimum 2.0 in WELD101

Theory, cutting, fit up and practice on different sizes of pipe using shielded metal arc welding. Vared weld and base metal testing methods are used to the strict code requirements. Focus on low hydrogen type electrodes in groove welds in the 2G, 5G, and 6G positions. (F)

**WELD210 Aircraft Welding** 2**Prerequisite:** Department Approval

Presents welding applications and methods used in repairs and inspection of aircraft structures in accordance with approved aviation maintenance techniques. (F,Sp)

**WELD250 Welding Internship** 3**Prerequisite:** Department Approval**Recommended:** 2.5 GPA or greater

This course provides welding students with practical work experience in industry. Students work for an employer in a supervised environment which provides an opportunity to apply knowledge and skills learned in the classroom and lab to an actual job situation. (F,Sp)

**WRIT - Writing****WRIT100 Writing Laboratory** 4**Prerequisite:** Reading Level 1 and Writing Level 1

Designed to teach fundamental writing skills and to introduce the student to the writing process. Emphasizes sentence structure, components of a paragraph, and critical reading with written response. Intended for students whose writing skills lie within the WRIT Level 1 score range on the College Placement Test. (F,Sp,Su)

**WRIT110 Confidence in Writing** 4**Prerequisite:** Reading Level 2 and Writing Level 2**Recommended:** Minimal typing skills desirable

Designed to help students understand the writing process, reduce writing anxiety, and develop basic writing skills. Emphasizes planning, composing, and revising strategies for experiential writing. Provides frequent writing practice in a supportive workshop environment. Students who earn exit competency of 2.5 will have a writing skill level of 4. (F,Sp,Su)

**WRIT114 Business English** 3**Prerequisite:** Reading Level 4 and Writing Level 4

This course is designed to review all parts of grammar, punctuation, and sentence structure. Special emphasis will be given to rules covering proper usage of punctuation, capitalization, possessives, number usage, plurals, and mechanics for written business communication. Students taking WRIT 124 or WRIT 127 may find Business English a useful concurrent course. (F,Sp,Su)



<p><b>WRIT117 Writing Preparation</b> 4</p> <p><b>Prerequisite:</b> Reading Level 4 and Writing Level 4</p> <p><b>Recommended:</b> Minimal typing skills desirable</p> <p>Designed to help students improve their writing in preparation for transfer-level academic courses. Students who earn exit competency of 2.5 will have a writing skill level of 6. (F,Sp,Su)</p>	<p><b>WRIT132 Honors Composition II</b> 4</p> <p><b>Prerequisite:</b> Minimum 3.5 in (WRIT121 or WRIT131)</p> <p>Builds upon the writing skills developed in WRIT121 to help students write argumentative essays which use logical support and appropriate documentation. Emphasizes research techniques and use of sources, and the development, structure, and style of the research paper. Some sections use computer classrooms. Others are offered over the Internet or interactive television. (F,Sp)</p>
<p><b>WRIT118 Personal Writing</b> 3</p> <p><b>Prerequisite:</b> None</p> <p>Explores the various forms of personal writing (diaries, journals, letters, personal narratives, and autobiography) through written exercises and selected readings. The student's observations and life experiences are the focus of written assignments. Emphasizes language, style, and tone appropriate to the different forms of personal writing. (F,Sp)</p>	<p><b>WRIT260 Creative Writing I</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in (WRIT121 or WRIT131)</p> <p>This course is designed to help students develop expressive abilities in writing poetry and short stories. Emphasizes narrative modes of the short story, and free verse forms and traditional forms of poetry. Students read and analyze models from masters in fiction and poetry. (F,Sp)</p>
<p><b>WRIT119 Writing Skills Review</b> 1</p> <p><b>Prerequisite:</b> Reading Level 5 and Writing Level 6</p> <p>Designed to help WRIT121-122 composition students, and others, improve their basic sentence and mechanics skills by providing intensive writing and editing practice in a workshop setting. (F,Sp,Su)</p>	<p><b>WRIT264 Nonfiction Writing</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in (WRIT121 or WRIT131)</p> <p>Study of nonfiction writing with a focus on marketing freelance writing. Students review a variety of effective writing techniques, study marketing information for their particular fields, including analysis of potential publishers and query letters, and discuss their writing in a workshop setting. Students prepare submission materials for editors. Word processing required. (F,Sp,Su)</p>
<p><b>WRIT121 Composition I</b> 4</p> <p><b>Prerequisite:</b> Reading Level 5 and Writing Level 6</p> <p>Composition I is the study and practice of expository discourse to help students write more effectively. It emphasizes writing process, critical thinking, content development, organization, and style. Students will select their best work for their portfolio, which will be externally assessed. (F,Sp,Su)</p>	<p><b>WRIT270 Creative Writing II</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in WRIT260</p> <p>Emphasizes improving the ability to write effective poems, short stories, and novellas. Students select their own subjects and receive immediate responses through group discussion. (F,Sp)</p>
<p><b>WRIT122 Composition II</b> 4</p> <p><b>Prerequisite:</b> Minimum 2.0 in (WRIT121 or WRIT131) or (Reading Level 5 and Writing Level 8)</p> <p>Builds upon the writing skills developed in WRIT121 to help students write argumentative essays which use logical support and appropriate documentation. Emphasizes research techniques and use of sources, and the development, structure, and style of the research paper. Some sections use computer classrooms. Others are offered over the Internet or interactive television. (F,Sp,Su)</p>	<p><b>WRIT276 Lyric Writing</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in (WRIT121 or WRIT131 or WRIT127)</p> <p>This course introduces students to the craft of writing song lyrics. The work of professional songwriters as well as the students' work will be examined and discussed. Students are required to attend live performances. (F)</p>
<p><b>WRIT124 Technical Writing</b> 3</p> <p><b>Prerequisite:</b> Reading Level 5 and Writing Level 6</p> <p><b>Recommended:</b> Computer and/or keyboarding experience</p> <p>A college-level course in the study and practice of technical writing in a variety of formats for select audiences. Covers writing instructions, mechanism descriptions, technical definitions, as well as business letters, persuasive memos, job application materials, and basic research techniques. Students learn basic research techniques. Students will work individually and collaboratively. (F,Sp,Su)</p>	<p><b>WRIT278 Writing the Novel</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in (WRIT260 or WRIT264)</p> <p>This course addresses all aspects of writing a novel. Classroom sessions will emphasize finding a narrative voice, establishing sturdy characters, and developing a workable plot. Students will receive feedback on their fiction in a workshop setting. Publishing information will be provided, but will not be a focus of the course. (F)</p>
<p><b>WRIT127 Business Writing</b> 3</p> <p><b>Prerequisite:</b> Reading Level 5 and Writing Level 6</p> <p><b>Recommended:</b> Computer and/or keyboarding experience</p> <p>College-level study of the theory and practice of business communication in a variety of forms, with emphasis on letters, memoranda and written reports, including research-based reports. Also covers job applications, resumes, and collaborative oral reports. (F,Sp,Su)</p>	<p><b>WRIT279 Prose Style</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in (WRIT121 or WRIT131)</p> <p>An advanced study of non-fictional prose writing. Extensive directed practice helps experienced writers make their own writing clear, precise, direct, and graceful. Workshop sessions include a study of the expectations and choices in various types of writing, and of the relationships among purpose, structure, words, sentences, grammar, punctuation, and style. (Sp)</p>
<p><b>WRIT131 Honors Composition I</b> 4</p> <p><b>Prerequisite:</b> Writing Level 7</p> <p>Honors Composition I is the study and practice of expository discourse to help students write more effectively. It emphasizes writing process, critical thinking, content development, organization, and style. Students will select their best work for their portfolio, which will be externally assessed. (F,Sp)</p>	<p><b>WRIT280 Creative Writing III</b> 3</p> <p><b>Prerequisite:</b> Minimum 2.0 in WRIT270</p> <p>Examines language and style as the most critical choices a creative writer makes in directing the reader's perception of and response to the work. Develops the writer's ability to control tone and style. Manuscripts will be reproduced and discussed in a workshop setting. (Sp)</p>

**WRIT282 Forum for Authors**

3

**Prerequisite:** Minimum 2.0 in (WRIT264 or WRIT270 or WRIT279)

An advanced course in freelance writing for authors working on manuscripts. Students meet in a workshop setting to refine ideas, critique writing, solve problems, and develop material for submission to periodical or book editors. Includes advanced study of effective writing techniques and market information. Occasional speakers. Word processing available. (F,Sp)

**WRIT295 Independent Study in Writing**

1-4

**Prerequisite:** Department Approval

An opportunity for self-directed learners to explore topics related to, but not taught in the curriculum. Students spend at least two hours per week for each credit. A detailed proposal must be submitted by the student for approval by the Department and supervising instructor prior to registration. (F,Sp,Su)

**WRTR - Writing Restricted****WRTR101 Writing Practice I**

1

**Prerequisite:** Reading Level 1 and Writing Level 1 and Department Approval

May be taken concurrently with other writing courses to provide extra individualized instruction and practice. (May repeat for credit three times.) (F,Sp,Su)

**WRTR102 Writing Practice II**

2

**Prerequisite:** Reading Level 1 and Writing Level 1 and Department Approval

May be taken concurrently with other writing courses to provide extra individualized instruction and practice. (May repeat for credit three times.) (F,Sp,Su)

**WRTR103 Writing Practice III**

3

**Prerequisite:** Reading Level 1 and Writing Level 1 and Department Approval

May be taken concurrently with other writing courses to provide extra individualized instruction and practice. (May repeat for credit three times.) (F,Sp,Su)

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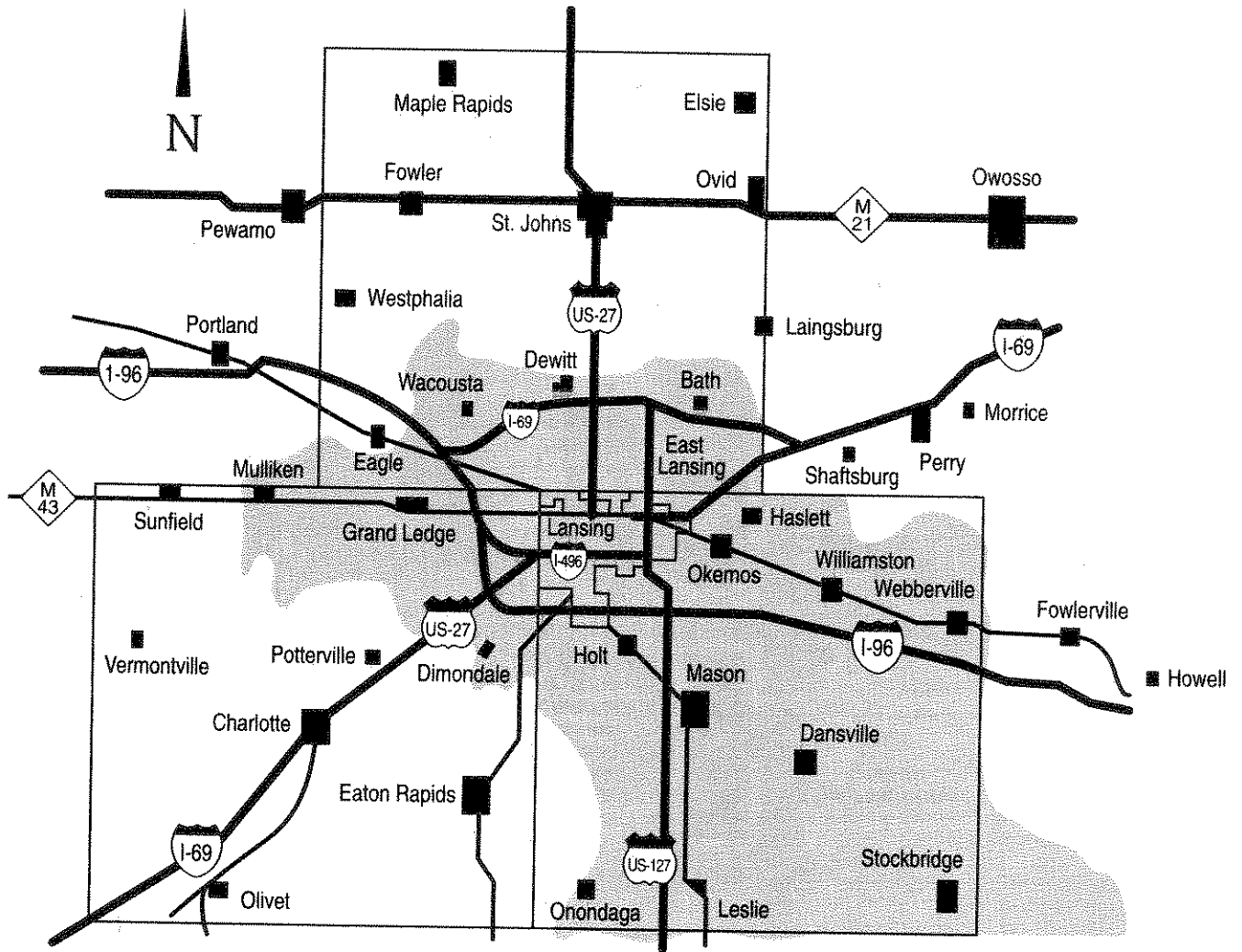
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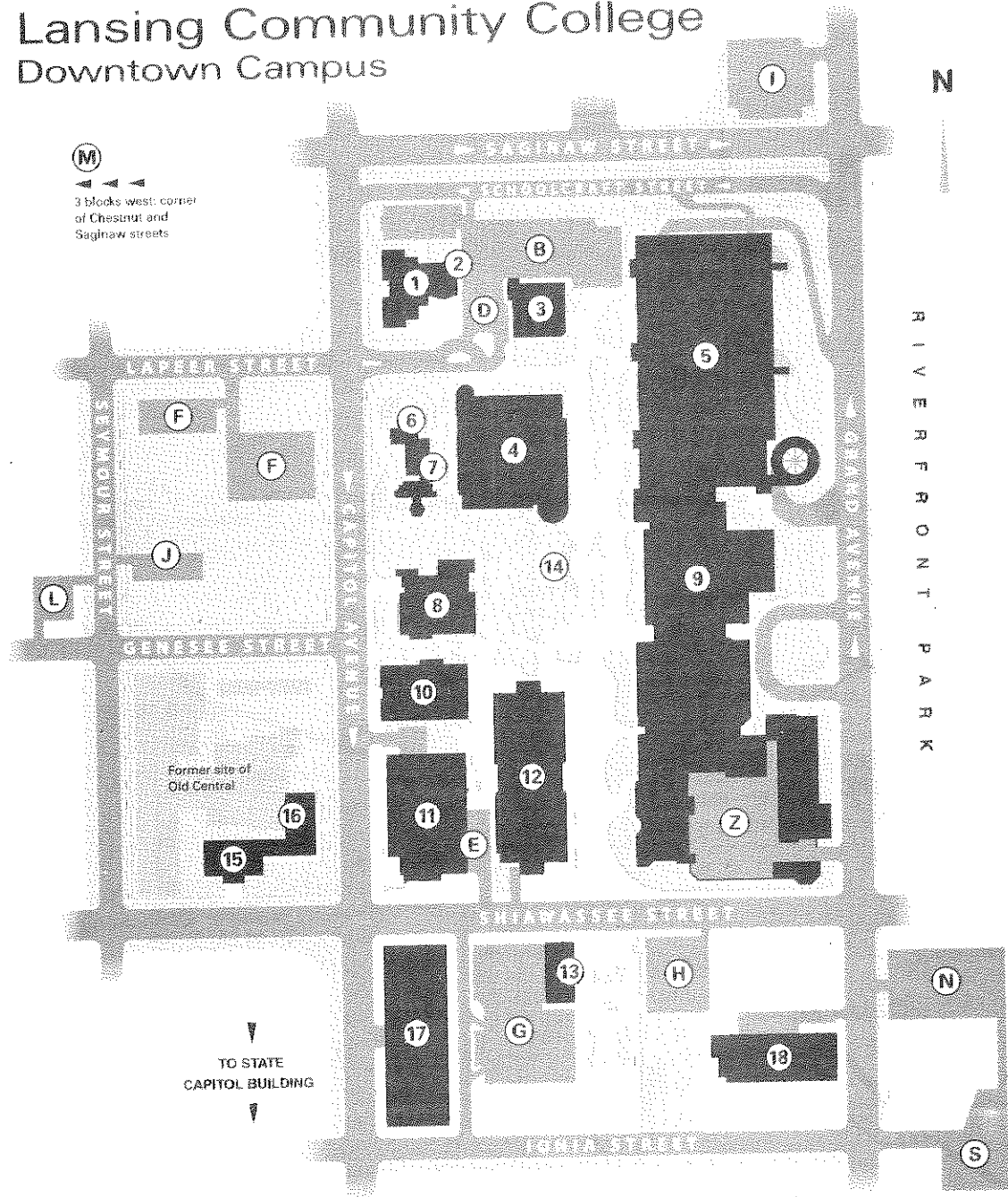
# Maps

## Service Area Map



 The following School Districts constitute the LCC Resident District:  
 Bath, Dansville, DeWitt, East Lansing, Grand Ledge, Haslett, Holt, Lansing, Leslie,  
 Mason, Okemos, Stockbridge, Waverly, Webberville and Williamston.

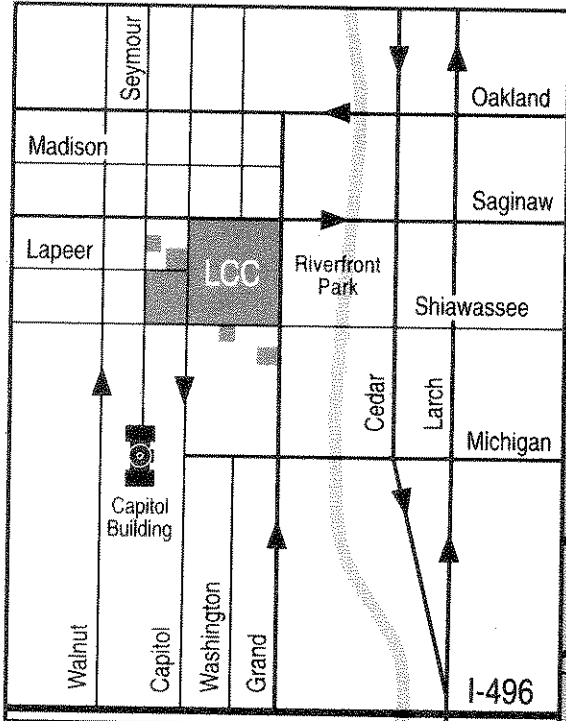
## Lansing Community College Downtown Campus



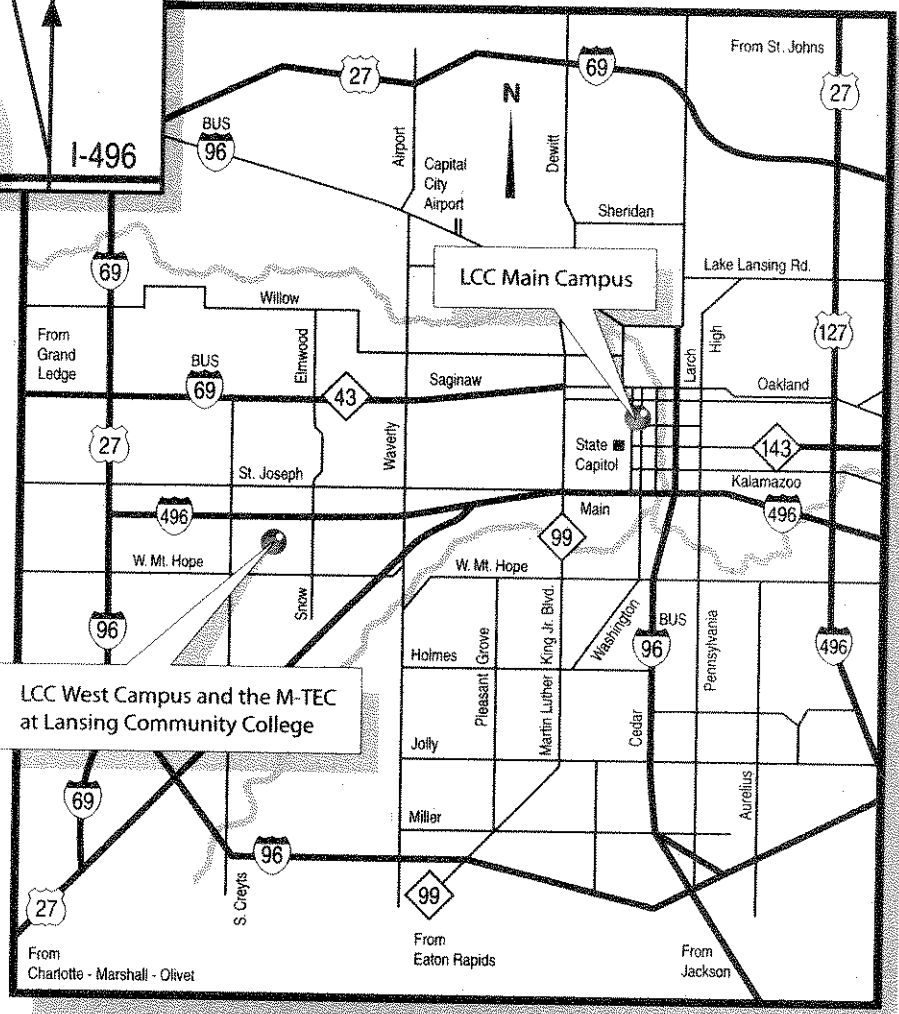
- 1 - Administration Building (ADM)
- 2 - LCC Board Room
- 3 - Photography Center (PC)
- 4 - Health and Human Services Building (HHS)
- 5 - LCC Parking Ramp (StarCard and Cash)
- 6 - Rogers-Carrier House (RCH)
- 7 - Herrmann Conference Center Complex (HCC)
- 8 - Dart Auditorium (DRT)
- 9 - Gannon Building (GB)

- 10 - Student Personnel Services (SPS)
- 11 - Abel B. Sykes, Jr. Technology and Learning Center (TLC)
- 12 - Arts and Sciences (A&S)
- 13 - Continental Building (CB)
- 14 - LCC Outside Amphitheater
- 15 - Carnegie Library
- 16 - University Center
- 17 - North Capitol Ramp (StarCard and Cash)
- 18 - Academic and Office Facility (AOF)

- B, G, H, J, L, M, N, S - Employee Parking Lots
- D - Special Permit Parking Lot
- E - Accessible Parking Lot
- F - Employee/Student Parking Lots
- I - Student Employee Parking Lot
- Z - Special Permit/Accessible Parking Lot



## Main Campus



## West Campus

- From I-496:
- Turn south on Creyts Road to West Mt. Hope.
- Turn left on West Mt. Hope and continue eastbound for about a half-mile to Sanders Drive.
- Turn left onto Sanders Drive to Cornerstone Drive.

# Learning Locations and Building Codes by City

2007-2009 Catalog Lansing Community College lcc.edu

<b>CITY</b>	<b>ABBR.</b>	<b>BUILDING NAME</b>	<b>BUILDING ADDRESS</b>	<b>ZIP</b>	<b>PHONE</b>
Charlotte	CHS	Charlotte High School	378 State Street	48813	(517) 543-8550
Dansville	DNSVLE	Dansville High School	1264 East Adams	48819	(517) 623-6120
<b>East Lansing</b>	<b>LCCEAST*</b>	<b>Lansing Community College East</b>	<b>2827 Eyde Parkway</b>	<b>48823</b>	<b>(517) 483-9307</b>
Grand Ledge	GLHS	Grand Ledge High School	820 Spring Street	48837	(517) 627-6612
Grand Ledge	GLSAWD	Grand Ledge Sawdon Building	220 Lamson	48837	(517) 627-6144
Haslett	HASLCE	Haslett Center for Community Education	1590 Franklin Street	48840	(517) 339-2665
Haslett	HSLT	Haslett High School	5450 Marsh Road	48840	(517) 339-8249
Holt	HOLT	Holt 9th Grade Campus	5780 West Holt Road	48842	(517) 694-7117
Holt	HOLTJR	Holt Junior High School	1784 Aurelius Road	48842	(517) 694-3911
Holt	HOLTHS	Holt High School	5885 West Holt Road	48842	(517) 694-3411
<b>Howell</b>	<b>LIVCEN*</b>	<b>Livingston County Center</b>	<b>1600 Pinckney Road</b>	<b>48843</b>	<b>(517) 545-3522</b>
Lansing	CAMW	Capital Area Michigan Works	2110 South Cedar Street	48910	(517) 482-5579
Lansing	LCATHC	Lansing Catholic High School	501 Marshall	48912	(517) 484-4465
Lansing	PLYMCH	Plymouth Congregational Church	2001 East Grand River	48912	(517) 484-9495
Mason	CACC	Capital Area Career Center	611 Hagadorn Road	48854	(517) 244-1337
Mason	HRTWD	Heartwood School	625 Hagadorn	48854	(517) 676-3778
Mason	MASUCF	Mason Urgent Care Facility	800 East Columbia Street	48854	(517) 676-0447
Mason	MHS	Mason High School	1001 South Barnes	48854	(517) 676-9055
Mason	MMS	Mason Middle School	235 Temple	48854	(517) 676-6514
Okemos	OKCE	Okemos Community Education Center	4000 Okemos Road	48864	(517) 349-2209
Owosso	OWOSSO	Owosso High School	765 East North Street	48867	(989) 723-8231
Portland	PORT	Portland Adult and Community Education	1090 Ionia Road	48875	(517) 647-2987
<b>St. Johns</b>	<b>STJCCC*</b>	<b>St Johns Clinton County Center</b>	<b>1013 South U.S. 27, Suite C</b>	<b>48879</b>	<b>(989) 224-2017</b>

\*Denotes Learning Center Updated listing can be found on [www.lcc.edu/ece/location](http://www.lcc.edu/ece/location).



Processed by \_\_\_\_\_ Date \_\_\_\_\_

# Admission Application Form

If you are a non-resident alien, do not fill out this application.  
Please request an international application.

Lansing Community College  
1121-Enrollment Services Office  
2<sup>nd</sup> Floor Gannon Vocational-Technical Center  
PO Box 40010, Lansing, MI 48901-7210  
Phone (517) 483-1200 Fax (517) 483-1170

Please print legibly in ink.

Social Security Number

\_\_\_\_\_

First Name

Middle Name

Last Name

Suffix

\_\_\_\_\_

Former Last Name

Date of Birth (example: 19-Apr-2005)

Gender\*

\_\_\_\_\_

Day \_\_\_\_\_ Month \_\_\_\_\_ Year \_\_\_\_\_

Male  
 Female

Semester You Plan to Begin

Jan-May

June-July

Aug-Dec

(check one)

Spring 20 \_\_\_\_\_

Summer 20 \_\_\_\_\_

Fall 20 \_\_\_\_\_

Admission Type

(check one)

High School Graduate or 18 Years Old

High School Freshman/Sophomore

High School Junior/Senior

Home Schooled

Ethnic Background\*

American Indian or Alaska Native

Asian

Black or African American

Hispanic or Latino (White)

Hispanic or Latino (All Other Races)

Others

Native Hawaiian or Other Pacific Islander

White

Permanent Address

(Enter the permanent address where you currently reside and the date it became effective.)

Effective Date (example: 19-Apr-2005)

Day \_\_\_\_\_ Month \_\_\_\_\_ Year \_\_\_\_\_

\_\_\_\_\_

Street Address (Include apartment number, if any.)

\_\_\_\_\_

City

\_\_\_\_\_

County

State

Zip

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(Area Code)

Home Telephone Number

(Area Code)

Mobile Telephone Number

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

E-Mail

\_\_\_\_\_

Citizenship

(Enter your citizenship status and the date it became effective.)

U.S. Citizen

Permanent Resident

(Green Card - attach copy)

Refugee, Immigrant, Political

Asylum (Attach copy of I-94 card)

Temporary Protected Status

(Attach copy of I-94 card)

Effective Date (example: 19-Apr-2005)

Day \_\_\_\_\_ Month \_\_\_\_\_ Year \_\_\_\_\_

\_\_\_\_\_

If **not** a U.S. citizen indicate:

country of citizenship \_\_\_\_\_ and

alien registration # \_\_\_\_\_ and

alien registration date \_\_\_\_\_

(Please fill out both sides of application form.)

Program of Study

[Grid for Program of Study]

[Grid for Program Code]

(See the college Web site or catalog for a program code list. Students receiving financial aid and students transferring credit from other institutions must declare a program.)

Admission Entry Level (check one)

- Earned 30.00 College Credits or Less
 Earned 30.01 College Credits or More

Have Associate Degree or Higher

Admission Entry Status (check one)

- 1st Time Attending Any College
 High School Student Earning College Credit
 Earned College Credit in High School

- Attending Another College
 Returning to LCC
 Transferring In to LCC

Educational Goal (check one)

- Associate Degree
 Certificate of Achievement
 Certificate of Completion
 Job Achievement
 Maintain Licensure
 Other
 Personal Interest
 Transfer to Two-Year School
 Transfer to Four-Year School

Name of High School Attended

City \_\_\_\_\_ State \_\_\_\_\_ I graduated or will graduate on (example: 19-Apr-2005)
Day Month Year
[Grid for Date]

Name of Previous College(s) Attended (If you want your credits transferred to LCC, please send a copy of your transcript(s) to: Lansing Community College, 1121-Enrollment Services Office, PO Box 40010, Lansing, MI 48901-7210)

Name of College \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_
Degree Earned \_\_\_\_\_ Start Date \_\_\_\_\_ End Date \_\_\_\_\_

Privacy Statement

The Family Education Rights and Privacy Act of 1974 protects the confidentiality of your student records at Lansing Community College. Your information will be used to evaluate your application for admission and will become part of your permanent student record. Release of this information to a third party without your written consent is prohibited. Please contact Enrollment Services at (517) 483-1200 if you have any questions.

I confirm that I have read and accept the Privacy Statement

Residency Statement

Your tuition rate will be based on your residency. Residency is based on where you have resided six months prior to the first day of the semester of enrollment. New students must verify residency at the time of admission. You will receive information on your residency status in your acceptance letter. Please contact Enrollment Services at (517) 483-1200 if you have any questions.

I confirm that I have read and accept the Residency Statement

Felony Statement

If you have been convicted of a felony, you may not qualify for certain careers involving special licensing and/or certifications. To ensure that you are pursuing an appropriate course of study at Lansing Community College, please contact the Counseling and Advising Center at (517) 483-1904. Request an appointment with either Craig Prether or Gil Hill to discuss educational plans to assure that your career goals can be achieved.

I confirm that I have read and accept the Felony Statement

Verification Statement

I certify that to the best of my knowledge, the information in this application is true and complete. I understand that providing false information may delay my admission and/or result in disciplinary action.

I confirm that I have read and accept the Verification Statement

Signature \_\_\_\_\_ Date Submitted \_\_\_\_\_

HIGH SCHOOL RECOMMENDATION FOR ENROLLMENT
To be completed by the high school Principal or designee.
 Recommended Signature \_\_\_\_\_
 Not recommended
 Please contact me Title \_\_\_\_\_ Date \_\_\_\_\_

An equal educational opportunity, affirmative action college. Discrimination on the basis of religion, race, color, national origin, age, sex, height, weight, marital status, handicap, sexual orientation, or any other category protected by law is prohibited. Title IX/Section 504 coordinator is located in the Gannon Vocational-Technical Center, Suite 2379, (517) 483-1899. The Lansing Community College Safety Report, as required by the Campus Safety Act of 1986, is available upon request from the Human Resources Department, the dean's office of the Student and Academic Support Division and the Police and Public Safety Department. Statistics from the report can be viewed at http://www.lcc.edu/admin/Safety/safety.htm. Lansing Community College is accredited by North Central Association of Colleges and Schools.

