



2018-19

**COLLEGE CATALOG**

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# 2018-2019 Catalog

**The online catalog is published annually each spring.**

**Please note:** This catalog is published for informational purposes and should not be regarded as an irrevocable contract between the student and the college. The Board of Trustees of Moraine Valley Community College reserves the right to change, without notice, graduation requirements, fees and other charges, curriculum course structure and content, and other matters within its control.

# Academic Calendar

*This is the primary calendar for most classes. Some classes are scheduled differently.*

## Spring Semester 2018

Nov. 27-Jan. 15 ..... Registration  
Jan. 15 ..... Martin L. King Day holiday, no classes  
Jan. 16 ..... On-campus credit classes begin  
Jan. 22 ..... Off-campus credit classes begin  
Jan. 22 ..... On-campus continuing education classes begin  
Jan. 29 ..... Off-campus continuing education classes begin  
Feb. 1 ..... Deadline to petition for Spring graduation  
Feb. 19 ..... Presidents' Day holiday, no classes  
Feb. 27 ..... Staff development day, no classes  
March 12-18 ..... Spring break, no classes  
March 19 ..... Classes resume  
March 30-Apr 1 ..... No classes  
April 2 ..... Classes resume  
May 11-17 ..... Final exam week  
May 18 ..... End of semester  
May 18 ..... Graduation

## Summer Semester 2018

April 16-May 20 ..... Registration  
May 21 ..... Three-week pre-session begins  
May 28 ..... Memorial Day holiday, no classes  
June 1 ..... Deadline to petition for Summer graduation  
June 10 ..... End of three-week pre-session  
June 11 ..... Eight week and first four-week sessions begin  
June 11 ..... Continuing education classes begin  
July 4 ..... Independence Day holiday, no classes  
July 8 ..... End of first four-week session  
July 9 ..... Second four-week session begins  
Aug. 3 ..... End of semester

## Fall Semester 2018

May 7-Aug. 19 ..... Registration  
Aug. 20 ..... On-campus credit classes begin  
Aug. 27 ..... Off-campus credit classes begin  
Aug. 27 ..... On-campus continuing education classes begin  
Sept. 3 ..... Labor Day holiday, no classes  
Sept. 4 ..... Off-campus continuing education classes begin  
Sept. 15 ..... Deadline to petition for Fall graduation  
Oct. 2 ..... Staff development day, no classes  
Nov. 21-25 ..... Thanksgiving break, no classes  
Nov. 26 ..... Classes resume  
Dec. 7-13 ..... Final exam week  
Dec. 14 ..... End of semester

## Spring Semester 2019

Nov. 26-Jan.13 ..... Registration  
 Jan. 14 ..... On-campus credit classes begin  
 Jan. 21 ..... Martin L. King Day holiday, no classes  
 Jan. 22 ..... Off-campus credit classes begin  
 Jan. 22 ..... On-campus continuing education classes begin  
 Jan. 28 ..... Off-campus continuing education classes begin  
 Feb. 1 ..... Deadline to petition for Spring graduation  
 Feb. 18 ..... Presidents' Day holiday, no classes  
 Feb. 26 ..... Staff development day, no classes  
 March 11-17 ..... Spring break, no classes  
 March 18 ..... Classes resume  
 April 19-21 ..... No classes  
 April 22 ..... Classes resume  
 May 10-16 ..... Final exam week  
 May 17 ..... End of semester  
 May 17 ..... Graduation

## Summer Semester 2019

April 15-May 19 ..... Registration  
 May 20 ..... Three-week pre-session begins  
 May 27 ..... Memorial Day holiday, no classes  
 June 1 ..... Deadline to petition for Summer graduation  
 June 9 ..... End of three-week pre-session  
 June 10 ..... Eight week and first four-week sessions begin  
 June 10 ..... Continuing education classes begin  
 July 4 ..... Independence Day holiday, no classes  
 July 7 ..... End of first four-week session  
 July 8 ..... Second four-week session begins  
 Aug. 2 ..... End of semester

## Fall Semester 2019

May 6-Aug. 18 ..... Registration  
 Aug. 19 ..... On-campus credit classes begin  
 Aug. 26 ..... Off-campus credit classes begin  
 Aug. 26 ..... On-campus continuing education classes begin  
 Sept. 2 ..... Labor Day holiday, no classes  
 Sept. 3 ..... Off-campus continuing education classes begin  
 Sept. 15 ..... Deadline to petition for Fall graduation  
 Oct. 1 ..... Staff development day, no classes  
 Nov. 27-Dec. 1 ..... Thanksgiving break, no classes  
 Dec. 2 ..... Classes resume  
 Dec. 6-12 ..... Final exam week  
 Dec. 13 ..... End of semester

## About Moraine Valley

Moraine Valley Community College is one of the nation's leading community colleges with a proud tradition of meeting the diverse needs of our students. The college offers more than 140 degree and certificate programs and services specifically designed to help students succeed in their academic, personal and professional pursuits.

Students choose Moraine Valley for a variety of reasons, but the most important include excellent faculty, small class size, up-to-date curriculum, equipment and facilities, affordable cost, convenience, and safe environment.

# Admission and Registration

Moraine Valley is committed to an “open door” admission policy. It shall admit all high school graduates or the equivalent who demonstrate an ability to benefit from one of its programs, subject only to space limitations. Admission may be denied to an applicant when it is not in the best interest of the college or the applicant to grant admission.

No person will be denied admission to the college, any of its program or activities on the basis of race, color, age, sex, religion, national or ethnic origin, disability, creed, ancestry, marital status, sexual orientation, gender identity, gender expression, arrest record, military status or unfavorable military discharge, citizenship status, or other legally protected characteristics or conduct.

Once admitted, students may select courses or programs according to their interests and abilities. These are determined by evaluating the individual student's high school experiences, previous test scores, and college assessment results. Moraine Valley provides advising and counseling services to help each student choose an appropriate field of study according to individual abilities and interests. With some programs, particularly the Health Science programs, space may not be available for all applicants. See Admission to Health Science Career Programs in this section for more information.

## Admission

A regularly admitted student is one who completes the college's admission process. The admission process is not completed until the following has been submitted:

- a completed enrollment form (available at [enroll.morainevalley.edu](http://enroll.morainevalley.edu)) with all required information.
- a final high school transcript, indicating the date on which the student graduated, or a high school equivalency certificate. Although not required for admission, it is strongly advised to turn in high school transcript or high school equivalency certificate. These documents are necessary for financial aid, special admission programs and athletes.
- all college transcripts, if applicable.
- the final admission steps will include the delivery of a new student welcome letter with instructions on academic placement testing, and New Student Orientation programming.
- completion of the standardized academic placement tests will support enrollment through New Student Orientation.
- SAT or American College Testing (ACT) generally is not required, but may be used to assist in academic advising and counseling placement of students, and for admission to designated programs.

For more information about the enrollment process by type of student, visit the Admissions webpages.

### ***Admission to Associate in Arts or Associate in Science Transfer Degree Programs***

**Transfer Degree Programs**—Students enrolling in transfer degree programs must have completed the minimum high school course requirements as outlined in the following section, in accordance with Illinois Public Act 86-0954. Students who do not meet these requirements may be required to take additional developmental courses. These requirements will be exempted for (a) students who submit college transcripts showing successful completion, with a grade of “C” or better, of 24 semester hours of transfer college credit at the 100 level or above; (b) students who successfully complete the high school equivalency exam; (c) students may submit ACT/SAT scores demonstrating their level of competency in English, mathematics, and reading or demonstrate equivalency proficiency through assessment or through courses offered at the college.

### ***High School Course Requirements for Admission to Transfer Degree Programs***

Subject	Years	Description
English	4	Emphasizing written and oral communication and literature
Social Studies	2	At least one year of United States history or a combination of U.S. history and American government; other acceptable subjects are anthropology, economics, geography, psychology, and sociology
Mathematics	2	Introductory through advanced algebra, geometry, trigonometry or fundamentals of computer programming
Science	2	Selected from biology, chemistry, earth science, and physics (laboratory science)
Electives	2	Foreign language, music, art, and/or vocational education
Flexible Academic Units	3	Additional English, social studies, mathematics, science, foreign language, music, art, and/or vocational education
	15	

**Transfer from Other Colleges**—A transfer student must complete the college admission process. Students intending to obtain transfer credit must submit an official college transcript from each college attended to the Records Office. Transfer credit earned from regionally accredited colleges and universities will be accepted in accordance with Moraine Valley admissions policies. All materials submitted during the application process are property of Moraine Valley and will not be returned or reproduced.

**Unofficial Evaluations**—Prior to registration, previous college transcripts can be reviewed by academic advisors to help support the development of an education plan to meet the student's education goals. An unofficial transcript may be brought to the Academic Advising Center, S201, to support the advising session prior to registration.

**Transcript Evaluations**—Before an official evaluation can be done, an evaluation request form must be submitted to the Records Office, and the student must be enrolled in credit classes at Moraine Valley. Evaluation request forms are available in S101 and S103, as well as on the college website. Click on Admission and Registration. Official transcripts may be sent to Moraine Valley directly from the transferring institution. Sealed transcripts may be brought in and hand delivered. Evaluations may take six weeks after receipt of all official documents.

**Catalog Expiration**—Students have six years from the first semester of enrollment to complete their program of study. If not completed within this timeframe, the student must complete their studies under a newer non-expired catalog. Students who have a break in enrollment of six or more semesters (including summer semesters) must follow the policy for readmission.

**Readmission**—Any student who has not been enrolled at Moraine Valley for six consecutive semesters (including summer semesters), must be readmitted to the college. The student must visit the Registration Office to update current address, program of study, and catalog year to the current semester. If the student has attended one or more colleges during this interim period, official transcripts for all academic work taken since last attending Moraine Valley must be submitted. Students are encouraged to visit Academic Advising in S201 to discuss degree or certificate requirements in effect at the time of re-enrollment.

**High School Students**—Students under 16 are not admitted to college classes. Exceptions to this rule may occur with approved programs of study within specialized Dual Credit Programs. Dual Credit enrolled students must complete an online enrollment form upon the approval of high school faculty and/or counselor. Students over the age of 16 who would like to pursue college courses must complete a High School Authorization Form, which can be obtained from and signed by the appropriate high school official.

**Admission to Honors Program**—After you apply for admission to the college, complete the Honors Program application available in G210 or online at [morainevalley.edu/honorsprogram](http://morainevalley.edu/honorsprogram). You'll need to meet **two** of the following prerequisites to enroll in the Honors Program:

- a 3.2 GPA from your high school
- an ACT score of 25 or SAT score of 1050 (composite)
- completion of at least one AP course with an A or B (AP score 4)

- graduation in the top 10 percent of your high school class

Students need to present verification that they meet admission requirements. After that, students are eligible to register for honors courses. **(708) 608-4186**, [morainevalley.edu/honorsprogram](http://morainevalley.edu/honorsprogram).

**Admission for International Students**—For international student admission procedures, see the *International Students webpages* for complete information.

**COL-101 Course Requirement**—All degree seeking students are required to enroll in and successfully complete the freshman experience course COL-101 College: Changes, Challenges, Choices during the first semester of registration unless they have:

- Previously enrolled in at least 30 semester hours of college credit. Credit must be documented on a college transcript or
- Successfully completed Moraine Valley course COL-101 or specific sections of HDV-101.

Successfully completed a course equivalent to COL-101 at another college. Course must be documented on a college transcript.

#### **Student Success/Dual Credit**—

• Dual Credit—Allows high school students the opportunity to earn college and high school credits by enrolling in select classes, offered and taught by qualified college instructors at the high school. Dual Credit agreements are renewed annually.

• Dual Enrollment—Allows high school students 16 years or older, with permission from their high school to enroll in and earn college credit for courses at Moraine Valley. These courses can be taken during part of students' regular school day, after school, online, weekends during the fall, spring and summer semesters at Moraine Valley's main campus, Education Center in Blue Island or the Southwest Education Center in Tinley Park.

Students over the age of 16 who would like to pursue college courses must complete a High School Authorization Form, complete the colleges' online enrollment form, meet course prerequisites and abide by college policy.

#### **Registration**

Once students have completed the admission process, they can register for classes in person, online or by phone. More information is available on the *Admissions webpages*.

#### **Change of Program**

**Request Form**— Students who need to change their existing program must complete, sign, and submit the Change of Program Request form to the Registration office, Building S, Room S103. Program changes may affect requirements and eligibility for educational benefits such as athletic, financial aid (including VA), and international student status.

Change of Program must be submitted for processing two weeks before the start of each semester for which the student is seeking a program change. Please note, if deadline is missed, student will have to wait until the following semester.

Students are encouraged to visit Academic Advising, Building S, Room S201, to discuss degree or certificate requirements. For request to change programs to Health Science programs, students must be admitted first. During the students first term of admittance, their program will be automatically be updated.

### **Admission to Health Science Programs**

Health Information Technology, Nursing, Radiologic Technology, Respiratory Therapy, and Sleep Technology are health career programs leading to an Associate in Applied Science (A.A.S.) degree. Mammography Technology and Computed Tomography are health science certificate programs. All of these programs have special admission requirements and limited enrollment. Applicants are responsible for ensuring that all admission requirements are met, and all documents and scores are submitted on time. Only complete application files will be reviewed for admission.

As part of the admission process, all selective admissions health science programs require that students submit a health history and physical evaluation. Students are required to complete a criminal background check and drug screening. Students are also required to have current medical insurance.

General information and program requirements may be found in the Career Programs section of this catalog, online at [morainevalley.edu](http://morainevalley.edu) or from the Academic Advising Center.

### **Computed Tomography and Mammography Technology Certificate Programs**

Admission Requirements:

- Current ARRT (American Registry of Radiologic Technologists) certification and current state licensure.
- Applicants must also present a valid driver's license, state ID or current student ID.

### **Admission Requirements for Health Science A.A.S. Degree Programs**

Documents required for a complete file:

- A completed program admission application by specified deadline (an application to the specific health program of your choice is available and must be returned in the Records Office, S111).
- A complete high school transcript showing date of graduation or a high school equivalency certificate.

- Official transcripts from all colleges or universities previously attended.
- Academic placement results documenting required level of placement as defined by each program.
- Proof of permanent residency or U.S. citizenship must be submitted at the time of application.

### **Academic Requirements for Specific Health Science A.A.S. Degree Programs**

#### **Health Information Technology A.A.S.**

- One year of high school biology with lab, or one semester of college biology with lab, with a minimum grade of "C".
- One year of high school algebra. Moraine Valley course MTH-095 or above, or an equivalent course at another college, with a minimum grade of "C".
- A minimum overall grade point average of 2.0 based on a four-point system.

#### **Nursing A.A.S.**

For complete information about the Nursing Program application and selection processes, please refer to the Nursing Program website.

#### **Application process**

- Submit the Moraine Valley college enrollment form
- Submit HS transcripts or GED certificate
- Complete all prerequisites
- Submit a Nursing Application
- Submit Transcripts to the Registrar's Office (Records Department)

#### **Ranking and Selection**

Your rank score will be determined by:

1. Points for cumulative GPA
2. TEAS scores in Math and Science (combined raw score)
3. If you have completed BIO-180 Anatomy and Physiology I, BIO-181 Anatomy and Physiology II, or Microbiology prior to application, point(s) will be awarded for each course based on the final grade: "C" = 1 point, "B" = 2 points, "A" = 3 points. The required biology courses must have been completed within five years of program admission.
4. Certification/License points  
LPN 6  
CNA 5  
Paramedic/Military Medic 4  
MOA /EMT 2

### **Radiologic Technology A.A.S.**

- One year of high school biology with lab, or one semester of college biology with lab, with a minimum grade of "C".
- One year of high school algebra, Moraine Valley course MTH-095 or above, or an equivalent course at another college, with a minimum grade of "C".
- A minimum grade point average of 2.0 based on a four-point system.

### **Respiratory Therapy A.A.S.**

- One year of high school general biology with lab, or one semester of college biology with lab, with a grade of "C" or above.
- One year of high school algebra with a minimum grade of "C", must qualify to take Moraine Valley course MTH-109 or above, or an equivalent course at another college.
- A minimum grade point average of 2.5 based on a four-point system.

### **Sleep Technology A.A.S.**

- One year of high school biology with lab, or one semester of college biology with lab, with a minimum grade of "C".
- One year of high school algebra, Moraine Valley course MTH-095 or above, or an equivalent course at another college, with a minimum grade of "C".
- A minimum grade point average of 2.5 based on a four-point system.
- The Sleep Technology Program offers advanced placement for students who have previously completed Moraine Valley's Polysomnography Technologist Certificate. The graduate also must possess the RPSGT credential. The application deadline for advanced placement into the Sleep Technology Program is April 1.

### **Health Science Selection Criteria**

- Selection of qualified applicants is completed by employing a system using GPA and grades in program-specific course work. The high school grade point average will be used for the applicant who has attempted less than 12 semester hours of college-level credit. More information about the ranking system can be found online under admission and selection for each program of study or by meeting with an Academic Advisor.
- Qualified residents of the district will be given priority.
- The specific program admission application must be submitted by March 1 for programs beginning in fall (August) with the exception of Radiologic Technology which is January 31, Sleep Technology (for new students) which

is June 1, or October 1 for the spring (January) Nursing Program.

- Qualified nonresidents who submit the specific program admission application by March 1 for programs beginning in fall (August) or October 1 for the spring (January) nursing program, who have complete files and proof of program academic requirements **MAY BE** selected on a space-available basis.
- On a space-available basis, applicants who did not meet all admission requirements by the deadline may be considered after March 15 or October 15.
- The required medical terminology, mathematics and science (i.e., biology, chemistry) courses for Health Information Technology, Radiologic Technology and Respiratory Therapy must be completed within five years of program admission. Exceptions may be granted on an individual basis upon approval of the program coordinator.

### **Transfer Students**

- Placement is considered on an individual basis.
- Obtain and complete a transfer evaluation request available from the Records Office.
- See Academic Advising Center for general education information.
- See coordinator of specific associate degree health career program for evaluation of career course work.

### **Reapplication**

Applicants not admitted to the special admissions programs during the initial application process are responsible for submitting a new application during the upcoming admission cycle. Readmit program applicants must complete a readmission form and submit it to the Records Office during the applicable time period.

### **Returning Students**

See specific program in the Career Programs (p. 52) section of this catalog.

### **Cooperative Programs**

Moraine Valley has cooperative agreements with suburban community college districts that enable Moraine Valley district residents to enroll in occupational programs not currently offered at its campus. Students who live outside Moraine Valley's district and wish to enroll in eligible programs at Moraine Valley should contact their home college to obtain necessary authorization. Moraine Valley students can enroll in the following colleges at the in-district rate if the program is not offered at Moraine Valley, but Moraine Valley does not approve its students to enroll in developmental, prerequisite, and/or general education courses in its cooperative agreements.

#### **Cooperating Colleges:**

Black Hawk College

Carl Sandburg College  
 City Colleges of Chicago  
 College of DuPage  
 College of Lake County  
 Danville Community College  
 Elgin Community College  
 Heartland Community College  
 Highland Community College  
 Illinois Central Community College  
 Illinois Eastern Community College  
 Illinois Valley Community College  
 John A. Logan College  
 John Wood Community College  
 Joliet Junior College  
 Kankakee Community College  
 Kaskaskia College  
 Kishwaukee College  
 Lake Land College  
 Lewis and Clark Community College  
 Lincoln Land Community College  
 McHenry County College  
 Moraine Valley Community College  
 Morton College  
 Oakton Community College  
 Parkland College  
 Prairie State College  
 Rend Lake College  
 Richland Community College  
 Rock Valley College  
 Sauk Valley Community College  
 Shawnee Community College  
 South Suburban College  
 Southeastern Community College  
 Southwestern Illinois College  
 Spoon River College  
 Triton College  
 Waubonsee Community College  
 William Rainey Harper College

Both full-time and part-time attendance is allowed. Cooperative applications will only be approved if submitted by the appropriate deadlines: July 20 for fall, Dec. 16 for spring, and April 20 for summer. Applications received after the due date will not be approved. The cooperative agreement does not apply if a student enrolls in: a transfer or remedial/developmental program, or classes that are part of continuing education, general studies, community services, or short-term job training programs (noncredit).

For more information on cooperative agreements, contact the office of Enrollment Services at (708) 974-5346 or visit the *enrollment services webpages*.

### International Students

International students are defined as any individual admitted into the U.S. on an F-1 student visa or students issued the SEVIS (Student and Exchange Visitor Information System) Form I-20 Certificate of Eligibility approved for study at Moraine Valley Community College.

International students are expected to comply with federal laws and regulations, and U.S. Citizenship and Immigration Services requirements while enrolled at the college.

See the *International Students* webpages for complete information on admissions, tuition and international student services.

### Placement Tests

View the college's current policy for academic placement tests at [morainevalley.edu/placement](http://morainevalley.edu/placement).

### Mandatory Placement Based on ACCUPLACER Scores

Students who place into RDG-041, RDG-071 or RDG-091 must enroll in that reading course their first semester and continue in the reading sequence until RDG-091 is successfully completed with a grade of "C" or better. COS-100 is a co-requisite to RDG-041.

### Residency Policy

A resident must live in the Moraine Valley Community College district at least 30 days prior to the start of the semester and meet at least one of these criteria:

- Under 18 whose parents or legal guardians reside in the college district;
- Under 18 who is married and who is established in a permanent family residence in the district;
- Under 18 who resides in the district in a dwelling he or she has purchased; and/or
- 18 or older who resides in the district, providing residence was not for the sole purpose of attending college.

Students shall be classified as residents of a community college district without meeting the 30-day residency requirement of the district if they are currently residing in the district and are youth (i) who are currently under the legal guardianship of the Illinois Department of Children and Family Services or have recently been emancipated from the Department, and (ii) who had previously met the 30-day residency requirement of the district but who had a placement change into a new community college district. (Public Act 99-0845)

View the *campus map*. Or, to verify your residency status, call **(708) 974-2110**.

Tuition rates are determined by the legal residence of the student. These rates are lower for residents of the Moraine Valley Community College district than they are for out-of-district residents who attend Moraine Valley. A student who temporarily moves into the district for the purpose of attending the college at a reduced tuition rate will not be considered as having established a bona fide residence within the district.

It is the student's responsibility to demonstrate residency status. A student may be asked to display verification of residence before class registration can be completed. The

following documents may be presented to verify residency: property tax statement, driver's license, Illinois state ID card, vehicle registration, copy of lease or purchase agreement, utility bill, or voter's registration card.

Documents or bills that are used to verify residence are required to be in the student's name.

Residency status is determined at the time of registration. It will not be changed after the refund period for that semester.

The dean of Enrollment Services or a chosen representative will determine whether an applicant meets the residency criterion.

### Tuition and Fees

Moraine Valley strives to make education affordable. Tuition is assessed on the basis of residency at the time of registration. See the current semester's *tuition rates and fees*. The college has a one-time admission fee and charges fees for amenities, including college activities, construction/infrastructure and technology. Additional fees are required for some instructional programs and courses. These fees may cover laboratory equipment, supplies, malpractice insurance, and student malpractice liability.

**Please note: Tuition rates and fees are subject to change without notice.**

#### **Tuition and Fees for Noncredit/Vocational Skills (AEC)**

**Courses**—Tuition and fees are assigned differently for each course and are listed in the course descriptions. Tuition and fees may change without notice. Courses designated with adult education credit (AEC) are supported by state and local funds. The tuition refund policy follows that of the noncredit/vocational skills (AEC) courses. Courses that are designated vocational skills (AEC) courses are graded with a pass/fail and are placed on the student's official college transcript.

**Employment in the District**—Students who are not residents of District 524 but who are employed full time (a minimum of 35 hours per week) in the district are eligible for in-district tuition rates. The student must be a current full-time employee of the organization who receives and pays the in-district tax bill in order to be eligible for the work-in-district rate. Independent contractors are not considered employees and thus are not eligible for the work-in-district rate. A student must submit two consecutive paycheck stubs, along with a letter written on company stationery and signed by either the owner/manager or the director of human resources attesting to current full-time employment status. A new letter and two consecutive paycheck stubs must be on file each semester in the Cashier's Office prior to the last day of the college's refund period for each registered class in order to qualify for in-district tuition.

**Billing Information**—Students should see the *MVConnect.morainevalley.edu* campus portal for billing due dates and payment information. Classes fewer than

eight weeks and noncredit classes must be paid in full the day of registration.

**Photo ID**—A student is eligible to receive a student photo ID upon completion of course registration. The ID card will be activated every semester the student is registered for classes. Get detailed information on the *Photo ID* webpage.

#### **Health, Fitness & Recreation Center (FitRec) —**

Membership for full-time students is free; part-time students have reduced rates. Part-time students taking PEH activity classes in Building H must pay the per-semester access fee in person in Building H. For FitRec membership and cost information, go to *morainevalley.edu/fitrec* for details.

#### **Other fees:**

Admission fee	\$25
Re-registration fee	\$25 one time per semester
Payment Plan fee	\$25 one time per semester if not paid in full at time of registration
Late Payment fee	\$50 one time per semester if balance not paid in full by last payment due date
Student ID	\$3
Student ID Replacement	\$5
Transcript	\$7
Diploma Replacement	\$15 1st degree
Diploma Replacement	\$7.50 for each additional degree or certificate
NSF Check Fee	\$30 for check returned, insufficient funds
Closed Check Account Fee	\$50 for check returned, closed account
Background Check Fee	\$27 program specific

Non-refundable fees: NSF, closed check account, re-registration, payment plan, late, ID, background, finger printing, TEAS testing, transcripts.

Tuition and fees are assessed at the time of registration. Cash, check, money order, Visa, MasterCard and Discover are accepted.

Full payment or partial payment must be made either at the time of registration. If full or partial payment is not made by

the due date, the student's courses may be dropped for nonpayment. A partial payment plan (for a fee of \$25) is available. There is a \$25 re-registration fee if the student's classes are dropped for nonpayment. Further information can be obtained from the Cashier's Office, call (708) 974-5715.

Students who are awarded financial aid will be responsible for full payment of tuition and fees.

Find complete and up-to-date information on payment options here.

**Senior Citizens and Disabled Persons Property Tax Relief Act**

**Relief Act** – Individuals 65 years or older by the first day of the semester, and whose income is less than the threshold amount defined by Section 4 of the Senior Citizens and Disabled Persons Property Tax Relief Act will be entitled to a full tuition waiver for regularly scheduled credit courses, excluding courses designed specifically for senior citizens, provided that available classroom space exists and tuition-paying students enrolled constitute the minimum number required for the course. All other fees apply pursuant to the act.

**Senior Citizens 62 or Older** – Individuals 62 years or older and who live in district may enroll in credit or adult education (AEC) courses at one-half the tuition rate. Class fees and the college activities fee, technology fee and construction/infrastructure fees are additional.

**In-District Property Owners** – Students living out of district but are in-district property owners (does not include parents, etc.) may be eligible for in-district tuition rates. Documentation required every year.

**Third-Party Invoicing**—Tuition and fee charges are the student's financial responsibility. If you are requesting the college to invoice a third party with intent of covering the full balance or a portion of your charges, it is your responsibility to ensure that payment is applied to your account prior to your due date. The college will invoice third parties on your behalf as long as there is no grade or class attendance stipulations required by the third party. All required documents must be presented at the Cashier's Office, Room S105. In the event that any charges are left uncovered (sponsor does not pay as anticipated), all remaining balances become your responsibility.

**Balance Due**—Moraine Valley reserves the right to withhold transcripts and other educational information and documents from students who are in debt to the institution or owe repayment of a federal/state grant.

**Tuition Refund (Credit)**—It is the student's responsibility to drop a course by published deadlines. Courses dropped within the refund period will not appear on your record. No-shows do not constitute a drop. Course length determines the number of calendar days allowed to drop a class in order to receive 100% refund. Below are the general guidelines related to the availability of refunds:

Course Length	100% Refund Deadline
16-17-week classes	8 calendar days after the first day of class
14-15-week classes	7 calendar days after first day of class
12-13-week classes	6 calendar days after first day of class
10-11-week classes	5 calendar days after first day of class
9-week classes	4 calendar days after first day of class
7-8-week classes	3 calendar days after first day of class
5-6-week classes	2 calendar days after first day of class
3-4-week classes	1 calendar day after first day of class
2-week classes	By end of first day of class
1-week class	Must be dropped before first day of class

Questions about refund deadlines for specific classes/sections can be directed to the Cashier's Office. A student is entitled to a full refund for any class that is cancelled by the college. For more information, contact the Cashier's Office at **(708) 974-5715**.

Refunds for short-term classes vary according to the length of the course.

For questions about tuition appeals, please check with the Cashier's Office for qualified extenuating circumstances and the Tuition Appeals Procedure.

**Tuition Appeal Guidelines**—The college acknowledges there may be extenuating circumstances that could have prevented students from completing a course. There are essentially three extenuating circumstances when a student may submit a tuition appeal:

1. Medical condition. A student must include a signed statement from the attending physician on letterhead and medical billings confirming the reason(s) with dates why the student was unable to attend the class. Documentation on a prescription memo is not an acceptable form of documentation.
2. Family death. In the event of a death of an immediate family member, a student must submit a copy of the Death Certificate or obituary.
3. Active Military Duty. A student, who is called for active military duty must submit official documentation.

A student who has an extenuating circumstance has the right to submit a Tuition Appeal letter, to the Tuition Appeals Committee. The appeal letter must be signed,

**dated and submitted within 30 days after the course was not successfully completed. Late appeals will not be accepted.** The student has to explain the circumstance(s) that prevented successful completion of coursework and detail the specific steps taken to resolve the circumstance(s) presented.

All appeals must be submitted to the Cashier's Office. Incomplete appeals will not be forwarded to the Tuition Appeals Committee. The Tuition Appeals Committee has the right to request and accept additional documentation needed to support any statement(s) made in the letter of appeal. A letter will be mailed to notify the student of the Committee's decision. The appeal is a waiver process. It does not excuse existing balances or refund money. **All decisions of the Committee are final. These are the due process procedures put in place for students.**

If a student has a complaint related to a course or an instructor, the student must be advised of the procedures outlined in the student complaint and hearing process (p. 33).

If a student has a complaint pertaining to financial aid that resulted in a balance/tuition owed, the student must be referred to the Financial Aid office to state his/her case for advice on what would be most appropriate action steps for the student to take.

If a student claims that s/he has been misinformed by advisors regarding course selection, the student must be referred to the assistant dean of Advising and New Student Orientation at **(708) 974-5721**. If a student claims that s/he has been misinformed by counselors, the student must be referred to the dean of Student Engagement at **(708) 974-5358**.

**Corporate, Community and Continuing Education (Noncredit) Cancellation Policy**—It is a student's responsibility to drop a course at least three calendar days prior to the start of class to receive a full refund. Courses dropped less than three calendar days before the start of classes will receive no refund. No-shows do not constitute cancellation. No credit may be used toward another section of missed classes.

**1098-T Forms**—The 1098-T forms will be available electronically by Jan. 31 each year. A 1098-T is generated for eligible tuition and fees each year during the current calendar year in accordance with the most current IRS rules and guidelines. Note: You will NOT receive a 1098-T form if: 1. You are a non-resident alien student, 2. All your courses for the calendar year were noncredit, 3. Your billed tuition was entirely waived by a scholarship or grant.

To REPRINT your 1098-T or view your form electronically you must consent to do so. 1. Login to [mvconnect.morainevalley.edu](http://mvconnect.morainevalley.edu) 2. Select the Student portal page. 3. Under the Self-Service menu select Student Account Information. 4. Under the Student Account

Information menu, select 1098 Electronic Consent. 5. Select the appropriate option. 6. Click the Submit button.

### **Veterans Benefit Program**

The federal and state governments have several programs available to assist veterans, spouses, and their dependents in paying for college and reaching their educational and vocational goals. Programs include:

1. Federal
  - a. VA Educational Benefits (Chapter 30, Chapter 33, Chapter 1606 and 1607)
  - b. Department of Veteran's Affairs Vocational Rehabilitation (Chapter 31)
  - c. Department of Veteran's Affairs Dependents Educational Assistance Program (Chapter 35),
2. State - Veterans who enroll in Moraine Valley courses may be eligible for the Illinois Veterans Grant (IVG). Applications are available at [gibill.va.gov](http://gibill.va.gov). Students receiving Veterans Administration Educational Benefits must participate in a mandatory orientation program and meet with an academic advisor to ensure they register for courses that are consistent with their educational and career goals. Each subsequent semester, veterans must meet with an academic advisor prior to registering.
  - a. Illinois Veterans Grant (IVG)
  - b. Illinois National Guard Grant (ING)
  - c. Illinois MIA/POW Scholarship (for spouses and dependents)

To be eligible for Veterans Administration Educational Benefits (GI Bill™), students must be a degree- or certificate-seeking student in an approved accredited transfer/career certificate program (programs offered by third-party institutions are not eligible) and making satisfactory academic progress.

Satisfactory academic progress for veteran benefits is defined by the college's Standards of Academic Progress policy.

Additional information on utilizing veterans benefits at Moraine Valley can be found on the Veterans Benefits web pages.

# Financial Aid

Financial aid is available to Moraine Valley students who prove eligibility and are enrolled in approved programs. Types of funds available to assist students include the following:

## Federal Funds

### Pell Grant

Supplemental Educational Opportunity Grant (SEOG)

Work Study Program (FWS)

Direct Loans (Stafford and PLUS)

## State Funds

Illinois Monetary Award Program (MAP)

Police/Fire Officer Survivor Grant

Grant Program for Dependents of Correctional Officers

## Other Funds

Adjunct Faculty Organization Scholarship

Joanne Casolari Memorial Scholarship

Chicagoland Regional College Program

Jane E. Crawley Scholarship

Faculty Association Scholarship

Barbara J. Lehrman Memorial Scholarship

Moraine Valley Community College

FoundationScholarships

Moraine Valley Distinguished Scholar Award

Student Government Association Book Scholarship

Student Life Award of Excellence

Support Staff Association Scholarship

Detailed information about these awards is available in the Financial Aid Office or at [morainevalley.edu/financialaid](http://morainevalley.edu/financialaid).

**Application for Financial Aid**—To apply for financial aid at MVCC, applicants should complete the Free Application for Federal Student Aid (FAFSA) and the Moraine Valley Data Confirmation form. The FAFSA application form is available online at [fafsa.gov](http://fafsa.gov). Early application enhances students' chances of obtaining financial aid. Qualified applicants whose files are complete by May 1 will receive priority consideration. Eligible students must have all paperwork turned in to the Financial Aid Office by July 1 to be considered for a fall semester book voucher, Dec. 1 for a spring semester book voucher, and May 1 for a summer semester book voucher. Since processing financial aid can take up to eight weeks, students must plan well in advance of the time they will begin their course of study. Specific deadlines can be found at [morainevalley.edu/financialaid](http://morainevalley.edu/financialaid). To qualify for financial aid, a student must meet the following criteria:

- be a citizen of the United States or a permanent resident;
- Be enrolled at MVCC in an eligible program which is at least 16 credit hours in length. The Department of Education requires that no more than 25 percent of an eligible program be offered at a location other than MVCC or its extension sites (the Education Center at Blue Island and Southwest Education Center in Tinley Park). Christ

Advocate Medical Center is an approved location for the Emergency Medical Services (EMS) degree program only. The EMS certificate is not financial aid eligible.

- Meet Satisfactory Academic Progress (SAP);
- Demonstrate financial need; and
- Have the potential to complete the educational program chosen. Must possess a high school diploma or high school equivalency certificate. Students who qualify for federal and/or state funds will be informed of how and when they will receive their financial aid award via an award letter through the student portal. Students who are interested in an educational loan must complete a Federal Loan Request Form to initiate the loan process.

## Pell Grant Eligibility

**Pell Grant Duration of Eligibility**—The duration of a student's eligibility to receive Pell Grant funds is 12 semesters or 600 percent. A percentage is calculated for students not attending full-time.

## Summer Pell Grant – Year Round Pell – Year-Round Pell Grants

The Consolidated Appropriations Act of 2017 allows a student to receive Federal Pell Grant funds for up to 150 percent of the student's Pell Grant Scheduled Award for an award year. This provision is effective beginning with the 2017-2018 financial aid award year.

To be eligible for the additional Pell Grant funds, the student must meet all general eligibility requirements to receive financial aid for the payment period and must be enrolled at least half time in the payment period for which the student receives the additional Pell Grant funds in excess of 100 percent of the student's Pell Grant Scheduled Award.

Students who have not used 100 percent of their scheduled award may be eligible for the summer Pell Grant if they received Pell Grant funds for only fall or spring, or if the students were paid less than full-time in either fall or spring. For financial aid purposes, 12 credit hours or more is considered full-time; 9-11 credit hours is considered three-quarter-time; 6-8 credit hours is considered half-time; and 5 or less credit hours is considered less than half-time.

## Satisfactory Academic Progress for Recipients of Financial Aid

All students at Moraine Valley who receive federal financial aid must make satisfactory academic progress (SAP) toward completion of their degrees/certificates at the end of each period of enrollment. This policy applies to the Federal Pell Grant, Supplemental Educational Opportunity Grant (SEOG), Work Study, Direct Loans, Stafford Loan, Parent Plus Loans, Illinois Monetary Award Program (MAP), and military Veterans' benefits.

Only courses that satisfy requirements outlined by the curriculum guide, catalog, or graduation evaluation form

can be used to determine your enrollment status for financial aid purposes. If a student takes a course that does not fulfill a program requirement, the student must use other funding to cover such a course. Your financial aid SAP and enrollment status are based on your most recent program of study at Moraine Valley.

The U.S. Department of Education requires a policy to use both the qualitative (GPA) and quantitative (completion percentage) criteria when measuring SAP.

Moraine Valley reviews SAP at the end of each payment period and has approved the following standards defining SAP in accordance with regulations issued by the U.S. Department of Education.

#### **SAP Standards:**

1. Cumulative GPA is a minimum 2.00 or higher and;
2. Cumulative completion rate is a minimum 67% or higher and;
3. Completion of program within 150 percent maximum timeframe allowed.

#### **SAP Statuses**

The following are various types of SAP statuses assigned to students applying and receiving Title IV funding. All courses earned at Moraine Valley and transferred into a student's program are used when determining SAP statuses, including credits earned while not receiving Title IV funding.

#### **Eligible SAP Statuses:**

1. Satisfactory is assigned to students who are meeting the following criteria:
  - a. Cumulative GPA is a minimum 2.00 or higher and;
  - b. Cumulative completion rate is a minimum of 67% or higher and;
  - c. Completion of program within 150 percent maximum timeframe allowed
2. Warning - When students do not meet the cumulative GPA and/or completion percentage requirement(s) portions of SAP standards, they are placed on warning and notified accordingly. Students remain on warning until the next time SAP is reviewed; which is the next payment period. During the warning period, students remain eligible for federal financial aid for one payment period only.

#### **Eligible SAP Statuses with Conditions:**

1. Probation - Assigned to students who are within one term of meeting SAP standards. Students, who have appealed and approved, and placed on probation, and are eligible for Title IV funds, must meet SAP standards at the end of the subsequent payment period
2. Academic Plans - Are developed for students that, if followed, will ensure the students are able to meet SAP standards by a specific time period. Plans are created to

address students who are affected by GPA, rate of completion, or both. Students who agree and continue to meet plan requirements are eligible for Title IV funds. If at any time while on the plan, the students do not meet the conditions at the end of a payment period, they return to the suspension/termination status (ineligible status).

3. GPA Plans - To qualify, students must have a completion rate of 67% and have a cumulative GPA less than a 2.00. This plan is structured to assist students with raising their cumulative GPA to a minimum of a 2.00 while maintaining their completion rate of 67%.
4. Pace Plans - To qualify, students must have a minimum cumulative GPA of 2.00 and have a completion rate less than 67%. This plan is structured to assist students with raising their completion rate while maintaining a cumulative GPA of 2.00.
5. Pace/GPA Plans - To qualify, students must have a completion rate less than 67% and a cumulative GPA less than 2.00. This plan is structured to assist students with raising their completion rate and cumulative GPA of 2.00 to meet SAP standards.

#### **Ineligible SAP Statuses**

1. Suspension/Termination – The second term following warning status that students did not meet one/all of the criteria below, they are ineligible for federal financial aid, and are notified accordingly. Students have the option to appeal their termination.
  - a. Cumulative GPA is less than 2.00 and/or;
  - b. Cumulative completion rate is less than 67%
2. Maximum Timeframe Completion - Each payment period SAP will be calculated to see if it is mathematically possible for students to complete their program and graduate within the maximum timeframe allowed. If at any point it is determined that the students cannot complete their program (i.e. graduate) within the maximum timeframe, that students become ineligible for Title IV aid. No warning or probation period is allowed.

The maximum timeframe for the completion of a degree/certificate program is defined as no more than 150 percent of the normal timeframe required to complete the degree program. For an undergraduate program, this is measured in credit hours. For example, a normal two year degree program requires 62 credits to complete (graduate). Students must complete the degree within 93 hours in order to remain eligible for Title IV funding.

*Please Note: Coursework that transfers into an eligible program will be included in a student's credit hours attempted and completed.*

Students can appeal maximum timeframe if they are (12) twelve credit hours or less from completing their degree and (6) six credit hours or less from completing their certificate. Students must have an academic plan proving the number credit hours needed. Students who are

approved for an extension will be placed on the following internal statuses:

1. Maximum Timeframe Appeal - 1
  - a. Students who are in need of one additional term
  - b. Maximum Timeframe Appeal - 2
    - i. Students who are in need of a second additional term.

Students who previously were on Warning, Probation, Suspension/Termination, or an Academic Plan status will return back to a SATISFACTORY status if the following conditions are met:

1. Cumulative GPA equals 2.00 or higher and;
2. Cumulative Completion Rate equals 67% or higher and;
3. Completion of program within 150 percent maximum timeframe allowed.

## **The Following Categories Will Be Calculated as Follows:**

### **Passing Grades**

Students earn credit by receiving final grades of A, B, C, or D in courses attempted.

### **Guest Students**

Students must be seeking a financial aid eligible degree or certificate in order to be eligible for Financial Aid. Guest Students are not eligible to receive financial aid.

### **Course Repeats**

Students are only allowed to repeat courses to replace previously passed courses one (1) time and receive Title IV funds. When evaluating SAP, both attempts will be calculated in the student's GPA, attempted and completed (if applicable) credits. This repeat policy applies to all courses whether or not financial aid was utilized.

Students may be paid for repeatedly failing the same course (normal SAP policy still applies to such cases). If students withdraw before completing the course that they are being paid Title IV funds for retaking, the course is not counted as their one allowed retake for that course. However, if students passed a class once and are repaid for retaking it but fail the second time, the failure counts as their paid retake and they may not be paid for retaking the class a third time.

### **Courses That Were Academically Forgiven**

Schools are not allowed to ignore hours attempted, hours completed or earned grades on coursework applicable to the student's program of study from previously enrolled periods. All courses will be included in the GPA, attempted, and completed SAP calculations.

### **Incomplete Grades**

When students do not complete all course requirements by the end of their enrollment payment periods, some instructors may assign a temporary grade of (I) for incomplete. In these cases, instructors assign traditional grades after the students complete the course requirements.

Incomplete grades may inaccurately reflect a students' GPA and/or pace. Incomplete grades are not considered passing grades and will be counted in SAP calculations for attempted credits as unsuccessful completion; however, these grades will not affect students' GPA until the final grade is recorded. The students' SAP will be updated and recalculated to include the new grade. Should the new calculation makes the students ineligible for Title IV funds and aid has been disbursed; the students will be responsible for all aid and balances incurred. All future disbursements will be cancelled.

### **Withdrawal Grades**

Courses in which students receive "W" grades will count as hours attempted but not as hours earned. They will not be included in the grade point average.

### **Transfer Credits**

Transfer credits accepted toward the students' program from another institution will be counted in both attempted and completed in a student's SAP evaluation.

### **Audit and Remedial Courses**

Audited classes are not considered "financial aid eligible"; therefore they count neither as hours attempted or completed.

### **Remedial/Prerequisite Courses**

Remedial coursework are considered "financial aid eligible"; therefore, they are counted as attempted and completed hours, and included in the students' GPA whether they are completed successfully or unsuccessfully.

Students are limited to 30 credit hours attempted for remedial/pre-requisite courses.

### **Consortium Agreements**

Students coursework earned at Moraine Valley on a consortium agreement will be evaluated using this SAP policy.

### **Grade Changes**

When a grade change occurs, the Registrar will notify the Financial Aid office of such change. The students' SAP will be updated and recalculated to reflect the changed grade for that term. Should the new calculation make the students ineligible for financial aid and aid has been disbursed; the students will be responsible for all aid and balances incurred. All future disbursements will be cancelled.

## Second Degrees/Certificates (SAP Reset)

Students seeking consecutive degrees/certificates are monitored like any other students under this policy. A new SAP calculation is performed for the new program of study to determine eligibility. Any credits earned at Moraine Valley from prior program that meet requirements in the new program will be counted in the students' GPA, attempted and completed credit hours. Any transfer hours that meet requirements in the new program will be treated as transfer credits.

## Appeal Procedures

Students not meeting SAP requirements have the option to appeal their suspension/termination of financial aid. It is the responsibility of the students to initiate any appeal.

Students must submit their appeal between the dates noted on the appeal form in order to be considered for the appropriate term. Removal of an academic restriction by Admissions, Registration, Counseling and Career Development, or another Moraine Valley office does not constitute reinstatement of federal aid eligibility. All appeal decisions are final. *Please note: Sitting out for an enrollment period(s) is not sufficient to re-establish eligibility for Title IV aid.*

Appeals are based on a documentable extenuating circumstances impacting academic performance.

Extenuating circumstances are considered to be past events that are no longer barriers to prevent academic progress. The appeal application must support how the students are now in a position to be academically successful.

Appeals will not be granted for the repeated circumstances. For example, an appeal can be granted due to a medical issue (back surgery in 2010) placing the students on probation or an academic plan. If students are placed on termination again, the same medical issue (back surgery in 2010) cannot be used as the basis for the appeal. The latter appeal must be based on a reason different from the first appeal with updated documentation that matches the period(s) of enrollment.

*Note: Circumstances related to the typical adjustment to college life such as working while attending school, financial issues related to paying bills and car maintenance/travel to campus are not considered as extenuating for purposes of appealing suspension/termination of financial aid.*

Examples of extenuating circumstances to be considered for appeal:

- Serious illness or injury to students or immediate family member that required extended recovery time
- Death of an immediate family member
- Significant trauma in students' life that impaired the students' emotional and/or physical health
- Withdrawal due to military service

- Second degree or certificate

- Change of major

- Other unexpected circumstances beyond the control of the student

*For this purpose immediate family member is defined as (parent, spouse, sibling, and child, grandparent (step or in-law respectively).*

## Notifications to Students

Students receive the following notifications:

### Warning Letter

Warning letters alert students that although they remain eligible for Title IV funding, they must return back to a satisfactory status at the end of the next payment period enrolled.

### Suspension/Termination

Suspension/Termination letters notify students that they are no longer eligible for Title IV funding as well as offer guidelines how to regain Title IV funding.

### Warning Maximum Time

Warning maximum timeframe letters warn students who are at or reaching 120 percent maximum timeframe to meet with an academic advisor to determine how many credits remain to complete their program. This notice also alerts students that they must complete their program within 150 percent maximum timeframe.

### Maximum Time

Maximum timeframe letters notify students that they are no longer eligible to receive Title IV funding because they weren't able to complete their program within 150 percent timeframe allowed.

## Return of Federal Funds Policy

According to the updated version (Section 668.22) of the Higher Education Amendments of 1998, students receiving Title IV funds (Federal Pell Grant, Federal SEOG and Federal Direct Loans) and who withdraw from all their classes (officially or unofficially) within any timeframe of the semester will be subject to the federal and Moraine Valley's refund policy.

Moraine Valley's refund policy related to student withdrawal states that it is a student's responsibility to drop a course within published deadlines. Courses dropped within the refund period will not appear on the student's record. No-shows do not constitute a drop. 100 percent refund up to 8 percent of the course taken. Contact Cashier's Office for refund dates based on number of weeks in class.

A student is entitled to a full refund for any class that is cancelled by the college. Refunds for short-term classes vary according to the length of the course. More information is available in the Cashier's Office or at [morainevalley.edu/cost-and-aid/tuition](http://morainevalley.edu/cost-and-aid/tuition).

The federal refund policy states that the student may retain only the amount of aid that he/she has earned (as a result of the prorated amount of time the student has been in attendance for the semester). Any aid that is not earned must be returned to its source. Some federal programs, such as grants, may have smaller amounts to be refunded based on the particular aid program and the student's date of withdrawal. The student will be responsible for any tuition and fee balance resulting from the refund(s).

Students who withdraw from coursework in a semester may be required to return a portion of the federal financial aid that had been applied to their account. The final amount of financial aid earned will be based on the period of time the student participated during the semester.

Students receiving federal funds, who fully withdraw, either officially or unofficially, before the conclusion of the semester, are subject to a "Return of Title IV Aid" calculation established by the federal government. This calculation determines the portion of federal funds that were earned by the student up to the time of withdrawal. The withdrawal date (last date of attendance) will be determined by official withdrawal from classes by the student, or as reported by the instructor in cases of unofficial withdrawal. If the student withdraws beyond the 60% point in the semester, they are considered to have earned 100% of the federal financial aid they were scheduled to receive.

Students enrolled in classes that do not span the entire semester are considered withdrawn if, at the time of the withdrawal, they are not actively attending another class and have not provided written confirmation of anticipated return in the semester for a late start class.

Federal financial aid disbursed in excess of the earned amount must be returned to the federal government. The college will perform the "Return of Title IV Aid" calculation within 30 days of the date of determination that a student has completely withdrawn and return any unearned federal funds it is responsible for returning within 45 days of the date the school determined the student withdrew.

If the student previously received a refund from financial aid, which was to be used for education-related personal or housing expenses, they may be required to return a portion of those funds to the college. When the college returns a student's unearned funds to the government, they will be billed for any balance due for any unearned refunds received or institutional charges that are now unpaid as a result of the return of federal funds.

If it is determined through a "Return of Title IV Aid" calculation that the Federal financial aid already disbursed to the student is less than the earned amount, the school will generate a post-withdrawal disbursement to the student no later than 45 days after the date of the school's determination that the student withdrew.

Funds returned to the federal government based on the "Return of Title IV" Aid calculation referenced above, reduce the outstanding balances in individual federal aid programs. Federal financial aid returned by the student, the parent, or the college, are allocated in the following order:

- Federal Unsubsidized Direct Loan
- Federal Subsidized Direct Loan
- Federal Direct Parent Loan (PLUS)
- Federal Pell Grant
- Federal Supplemental Educational Opportunity Grant (SEOG)
- TEACH Grant

If financial aid is awarded after the conclusion of the semester, federal aid is awarded based on the courses completed for that semester.

Students receiving Federal financial aid and considering withdrawing from registered coursework are encouraged to make an appointment with a Financial Aid expeditor to examine the implications to their financial aid.

## Recalculating Financial Aid For Enrollment Changes

The Department of Education (ED) requires schools to disburse the Federal Pell Grant based on a student's level of enrollment (i.e., full-time, three-quarter time, half-time or less than half-time). Stafford Loans and other financial aid programs also have minimum enrollment requirements.

The following information pertains to the Federal Pell Grant and explains how enrollment status is determined for awarding purposes.

The census date, also known as the Pell Recalculation Date (PRD), is the last day for students to add or drop courses before "locking in" their enrollment status for Pell Grant awarding purposes. MVCC uses the award period census date for all students who attend classes at the start of the semester. For students who begin attendance after the term has begun (and are NOT enrolled) the census date will be the date the Pell Grant is first awarded.

The award period census dates can be found on our website.

Note: All registration activity must be completed by each term's census date to have the courses count toward your enrollment status. Any registration activity that occurs after the census date will be excluded from receiving financial aid.

## Pell Recipients Selected For Verification

If a student is selected for verification, all documentation is submitted and the funds are disbursed during the semester, the student's Pell grant will be based on hours locked in at the Moraine Valley's census date and the valid Estimated Family Contribution (EFC).

If the student completes the financial aid process after the term has ended, the amount of disbursement will be based on the valid EFC, Moraine Valley's census date and the hours completed. Earned failing grades (F) are considered hours completed for this purpose only. Withdrawal grades (W) will not be eligible to receive financial aid in this instance.

### Class Cancellations

The college has the right to cancel courses. In the event a course is canceled, students will be allowed to register for another course to replace the canceled course. The replaced course will be given the same registration date as the canceled course. All courses you register for must be applicable to your program of study. All other Title IV rules will apply to the newly-added course.

## Financial Aid Program Limits

### Pell Grant Lifetime Eligibility Used (PLEU)

The amount of Federal Pell Grant funds you may receive over your lifetime is limited by federal law to be the equivalent of six years of Pell Grant funding. Since the maximum amount of Pell Grant funding you can receive each year is equal to 100 percent, the six-year equivalent is 600 percent.

**Percent used:** To determine how much of the maximum six years (600 percent) of Pell Grant you have used each year, the ED compares the actual amount you received for the award year with your scheduled award amount for that award year. If you receive the full amount of your scheduled award, you will have used 100 percent. It's possible you might not receive your entire scheduled award for an award year. There are a number of reasons for this, the most common of which are you are not enrolled for the full year and/or you are not enrolled full-time (12 or more credit hours).

If you did not receive the full amount of your scheduled award, MVCC calculates the percentage of the scheduled award you did receive. For example, if your scheduled award for an award year was \$5,000, but you enrolled for only one semester, you received \$2,500—50 percent of the scheduled award for that award year. If you received only \$3,750 for the award year because you enrolled three-quarter-time, you received 75 percent for that year.

### Subsidized Usage Limit Applies (SULA)

Maximum eligibility period to receive Direct Subsidized Loans

There is a limit on the maximum period of time (measured in academic years) you can receive Direct Subsidized Loans. In general, you may not receive Direct Subsidized

Loans for more than 150 percent of the published length of your program. This is called your "maximum eligibility period." You can find the published length of any program of study in this catalog.

For example, if you are enrolled in a two-year associate degree program, the maximum period for which you can receive Direct Subsidized Loans is three years (150 percent of two years = three years).

Your maximum eligibility period is based on the published length of your current program and can change if you switch programs. If you do switch programs, the Direct Subsidized Loans you received for the first program you enrolled in generally will count against your new maximum eligibility period.

### Illinois Monetary Award Program (MAP) Limit

**Limit for each term:** Payment for each term is made according to the equivalent number of credit hours eligible for MAP payment, with a minimum of three and a maximum of 15 MAP Paid Credit Hours. If you are enrolled for the equivalent of 15 or more credit hours, the number of MAP Paid Credit Hours assessed to you will be 15. If you enroll in a different number of credit hours during the various terms of the same academic year, your actual MAP award may be different for each of those terms.

**Limit for freshman and sophomore students:** There is a limit on the number of MAP Paid Credit Hours that can be paid while you are classified by your school as a freshman or sophomore. This limit is the equivalent of 75 MAP Paid Credit Hours. If this maximum is reached, you must attain junior status at whichever school you are (or will be) attending for your MAP grant eligibility to resume.

**Please note:** Moraine Valley is limited to a sophomore status.

**Total limit:** The maximum number of MAP Paid Credit Hours is capped at the equivalent of 135 MAP Paid Credit Hours.

### Students with Bachelor Degree Limits

Once you have a bachelor's degree or a first professional degree, you are generally not eligible for MAP, Pell or Federal Supplemental Educational Opportunity Grants (FSEOG). You may be eligible to apply for Federal Work Study and Federal Direct Subsidized and Unsubsidized Loans if you have not borrowed your maximum loan eligibility.

If your bachelor's degree was received in a foreign country, it must be evaluated by an accredited agency to ensure it is the equivalent of a U.S. bachelor's degree. Moraine Valley recommends Educational Perspectives ([edperspectives.org](http://edperspectives.org)). For assistance with finding other accredited agencies, visit the National Association of Credential Evaluation Services website ([naces.org](http://naces.org)).

If you have a bachelor's degree, whether it was earned in the U.S. or a foreign country, and you are pursuing a Moraine Valley Associate in Applied Science degree or certificate that is at least 16 hours and financial aid eligible, you must meet with an academic advisor to obtain a signed Degree Audit Worksheet.

**Your program on record must match the program listed on your Degree Audit Worksheet to be eligible.**

You are not eligible for aid if you are not degree/certificate seeking at Moraine Valley. Call the Academic Advising Center at (708) 974-5721 for availability.

**How to Calculate the 67% Completion Standard**

1. Get a copy of your transcript from the Registration Office.
2. Total your attempted credit hours. These are defined as enrolled hours on or after the first day of class. Courses in which students receive an A, B, C, D, F, I, W, and/or X will be counted toward hours attempted.
3. Total your successfully completed credit hours. These are defined as those with a grade of A, B, C, or D.
4. Divide your successfully completed credit hours by your attempted credit hours.
5. If the resulting percentage is 67% or greater, then you have met the 67% completion standard for financial aid. Example: 19 successfully completed hours divided by 27 attempted credit hours = .703 or 70%.

Repeated courses will be counted in hours attempted, but only the most recent grade received will be computed into the grade point average. The hours for the original course will not be added to hours earned.

**How to Calculate Grade Point Average Standard**

Example Calculation (Semester Grade Report)

Course	Letter Grade	Grade Points Value		Credit Hours		Grade Points
COM-101	B	3	x	3	=	9
PSY-101	D	1	x	3	=	3
MTH-095	C	2	x	3	=	6
BIO-111	A	4	x	4	=	16
IMS-101	F	0	x	3	=	0
Totals				16		34

Dividing 34 grade points by 16 credit hours gives a GPA of 2.125.

A student's cumulative GPA is calculated by using total grade points on transcript divided by total credit hours attempted.

# Instructional Programs

## Transfer Programs

Associate in Arts (A.A.), Associate in Science (A.S.), and Associate in Fine Arts (A.F.A.) programs are for students whose goal is to transfer to a four-year college or university for a bachelor's degree. See the General Education (p. 21) information in this section and the Transfer Programs (p. 39) section of this catalog.

## Career Programs

Associate in Applied Science (A.A.S.) degree programs and certificate programs are for students whose goal is immediate employment upon graduation from Moraine Valley. To expand the number of career programs available to students of the district, Moraine Valley has cooperative agreements with other community colleges. Under these agreements, students may take core courses at the cooperating institution and may take general education courses at Moraine Valley or at the cooperating institution. Credit for some career programs may transfer to four-year colleges and universities. Contact the Academic Advising Center for transfer information.

## Learning Enrichment and College Readiness

Moraine Valley offers basic skills courses in communications, math, and reading that serve students in need of preparation for college-level courses. In addition, the college offers courses/services in English as a Second Language, Intensive English Language, Volunteer Literacy, Adult Basic Education, and High School Equivalency, and academic coordination for the Learning Development Support System. The Dr. Irene H. Brodie Academic Skills Center provides free tutoring, computer labs, and various short-term study skills and writing workshop opportunities.

## Corporate, Community and Continuing Education

Moraine Valley offers a variety of professional and personal services, including assistance to local companies in strengthening their workforce and becoming more productive. Through scheduled short-term training, customized training, and outreach services, the college meets the demanding needs of business and industry, and provides opportunities for professional and personal growth for community residents. Get more information on the *Corporate, Community and Continuing Education* webpages, or call (708) 974-5735.

## Programs and Services to Support Student Learning

As a comprehensive community college, Moraine Valley is dedicated to helping adults achieve their academic goals. A

variety of services and programs, both credit and noncredit, is available to students. Learn more about:

Academic Outreach — (708) 974-5710

Academic Skills Center — (708) 974-5746

Achieved Prior Learning (APL) — (708) 974-5710

Adult Basic Education (ABE) — (708) 974-5340

College Level Examination Program (CLEP) — (708) 974-5710

Dual Credit — (708) 974-5643

Education Center at Blue Island — (708) 974-5300

English as a Second Language (ESL) — (708) 974-5340

High School Equivalency Application and Testing — (708) 974-5340

Honors Program — (708) 608-4191

Intensive English Language Program — (708) 974-5340

Literacy Volunteer Program — (708) 974-5331

Moraine Area Career System (MACS) — (708) 422-6230, [kendryna@macspartnership.com](mailto:kendryna@macspartnership.com)

Online Learning — (708) 974-5347

Proficiency Credit — (708) 974-5710

Southwest Education Center — (708) 974-5400

## General Education and Educational Guarantee

### General Education

The requirements for an associate's degree (A.A., A.S., A.F.A., A.A.S., or A.G.S.) consist of a minimum of 60 credit hours taken from three components: (1) general education core, (2) additional degree requirements, and (3) courses taken in the major/minor field and electives. Course work in the general education core:

- assumes there are some commonalities expected of an "educated person" in terms of what he or she knows and is able to do.
- provides students with the ability to realize their potential as educated, responsible, and productive lifelong learners in a diverse and rapidly changing world.
- consists of a core of intellectual, aesthetic and cultural experiences that will introduce students to essential knowledge, skills and values, and encourage them to make connections across disciplines.

For transfer students (A.A., A.S., A.F.A.), the general education core ranges from 37 to 45 credit hours; for career students (A.A.S.), the core comprises at least 15 credit hours depending on the program of study. For general studies students (A.G.S.), general education contains at least 21 credit hours. Presently, transfer students who complete their A.A., A.S., or A.F.A. degree will fulfill most, if not all, of the general education core requirements

expected for the baccalaureate degree at a four-year college or university.

Moraine Valley has a standard general education requirement, distributed into the five traditional divisions of knowledge:

1. Communication
2. Mathematics
3. Life and Physical Sciences
4. Humanities and Fine Arts
5. Social and Behavioral Sciences

The specific courses in each division will vary with the student's degree or program, and the type of courses will change occasionally. The student may wish to contact the Academic Advising Center to determine the exact requirements in effect.

While accurate information and advising assistance is always available regarding the general education core requirements, the major responsibility of getting a purposeful general education rests upon each individual student. Thus, students should also familiarize themselves with the General Education Goals and Objectives in the next section that identify the traits of a generally educated person. By understanding these goals and objectives, students can begin to make informed selections of course work.

#### **General Education Goals and Objectives**

The general education program at Moraine Valley is designed to enable students to write, read and listen critically; to investigate, analyze and think independently; to communicate clearly and effectively; to make informed decisions; to respect the diversity in human values and cultural orientation; to identify and appreciate facts, concepts and perspectives within the fundamental areas of knowledge; to protect and enhance the social, environmental, and economic resources needed by future generations; and to foster intellectual curiosity and lifelong learning.

The specific objectives of the general education program are to develop in each student the following traits and abilities:

1. **Communicating:** Read and listen with comprehension. Write and speak effectively in standard English.
2. **Reasoning Ability:** Identify and solve problems.
3. **Information Literacy:** Locate, evaluate and use information effectively.
4. **Quantitative Analysis:** Analyze, interpret and apply numerical, graphical, and statistical data and concepts.
5. **Scientific and Technological Awareness:** Apply the scientific method of inquiry.

6. **Technological Competency:** Use computer information systems and other technology efficiently.

7. **Social Sciences Perspective:** Apply basic principles of social and behavioral sciences influencing individuals and groups.

8. **Literary and Artistic Insight:** Appreciate the nature of literary, philosophical and artistic expression and how particular works have contributed to the ideas and culture of the past and present.

9. **Valuing Diversity:** Value diversity's influences on experiences, values, and thoughts of individuals and cultures.

10. **Global Awareness:** Recognize major institutions, persons, ideologies, and events that have shaped the nature and cultures of the world.

11. **Social Responsibility and Sustainability:** Work effectively with others. Recognize one's ethical, legal, social, and sustainable responsibilities.

#### **General Education Core Curriculum**

The General Education Core Curriculum at Moraine Valley is described in the Transfer Programs (p. 39) section of this catalog.

#### **Educational Guarantee**

Moraine Valley Community College believes in the quality of its faculty and staff, and in the quality of instruction and technical skill competencies it provides to students.

As an expression of confidence in this belief, the college established guidelines to guarantee the transferability of course credit to colleges and universities, and to guarantee the technical skill competencies expected by employers.

If certain provisions are met, graduates of the college's university transfer programs are guaranteed the courses they successfully complete at Moraine Valley will transfer to their predetermined four-year college or university. Should the transfer institution decline to accept courses for credit, Moraine Valley will refund the tuition and course fees.

Additionally, Moraine Valley's career training program graduates are guaranteed technical skill competencies. If a graduate of an Associate in Applied Science degree or certificate program is not able to demonstrate entry-level skills expected by his or her employer, the graduate and employer may request up to 12 credit hours of retraining at Moraine Valley. For more information, contact the Academic Advising Center, **(708) 974-5721**.

# Grading

## Definitions

The following letter grades are used on semester grade reports and transcripts:

- A—** Student demonstrates achievement of learning objectives at a level of outstanding mastery.
- B—** Student demonstrates achievement of learning objectives at a level beyond mere minimum competency.
- C—** Student demonstrates achievement of learning objectives at a level of minimum competency.
- D—** Student demonstrates achievement of learning objectives at a level below minimum competency but sufficient to receive credit.
- F—** Student demonstrates insufficient achievement of learning objectives to receive credit.

The following letter grades are used to identify courses accepted as transfer credit:

- TA—** Transfer grade of A
- TB—** Transfer grade of B
- TC—** Transfer grade of C
- TD—** Transfer grade of D
- U—** Audit: Students may elect to audit a course (no credit, no grade points, not figured in grade point average). Audit status indicates that the student will attend the classes but will not receive credit. A student must declare audit status before the end of the refund period. Pending approval, an additional fee will be charged to offset the loss in state reimbursement.
- I—** Incomplete: If the student doesn't complete the course work within the prescribed semester restrictions, a grade will automatically default to an "F." The incomplete grade contract is an agreement between the student and the instructor, and states specifically what the student must do to complete the course work. The course work must be completed by the end of the semester following the term in which the course was taken (not including summer semester) and must be in agreement with the terms of the incomplete grade contract. Upon completion of the course work, the instructor will change the "I" grade to the appropriate letter grade (A, B, C, D, or F) by obtaining a Change of Grade Form from the subdivision office. If the student does not complete the course work within this prescribed semester restriction, a grade of "F" will be entered for the course. See the "Guidelines for Issuance of an Incomplete Grade" below.

**W—** Official withdrawal: Once a student has withdrawn from a course, he/she will no longer be allowed to attend class. All withdrawals are final. Once a student has withdrawn, a grade of "W" will appear on the official transcript. This grade does not affect the student's GPA. A student who does not officially withdraw may receive a grade of "F." This grade will become a part of the student's permanent record. The student remains responsible for all tuition and fees related to the course. See the "Guidelines for Withdrawal" and "Administrative Withdrawal Policy" below.

**P—** Pass (vocational skill classes only): For specified courses (i.e., APL), credit is recorded only by a "P" (pass) or "F" (fail). The "P" grade signifies that the student completed the requirements of the course with a grade of "C" or better. Credit from courses in which a "P" is granted counts toward the completion of the student's program of study but is not figured in the grade point average.

**R—** Repeating a class: Students may attempt a college-level course twice (including withdrawals) and a developmental course three times (including withdrawals). In accordance with this policy, a student may be denied enrollment in a class based on lack of academic progress and/or proof of an ability to benefit from the course. Some courses are approved to be taken more than two times (e.g., designated music and physical education courses). The repeat policy will go into effect when the allowable number of repeats for these courses has been exceeded. Those seeking an exception to the college policy must contact the dean of Student Engagement. The most recent grade (the repeated grade) received will be computed into the cumulative grade point average. The repeated grade will be designated by an "R." All previous attempts will remain on the transcript, but will not be included in the cumulative grade point average.

For financial aid purposes, courses that are repeated will not be counted in enrolled hours if the student previously received a grade of "D" or better in the course. Exception: A repeat will count once if a grade of "C" or better is required for the student to take the next course sequence. For example, if the student took MTH-095 and received a "D," the student would be able to repeat the course and have the hours counted in the enrolled hours since a grade of "C" or better is needed to enroll in MTH-098. However, if the student does not receive a "C" or better in his or her second attempt, the course will not be covered by financial aid the third time.

**FF—** Forgiveness Policy Applied (p. 26)

### Guidelines for the Issuance of an Incomplete Grade

- Students may request an "I" grade only when unusual and serious circumstances arise during the final weeks of the semester that in some way prohibit the completion of course requirements for a course that the student has been successfully pursuing. These circumstances may involve a severe personal or family crisis, grave personal illness, or extraordinary job responsibilities. The instructor may, and should, request written documentation.
- Students may not request an "I" grade if they have failed to attend the course on a regular basis and/or have failed to pursue the course work during the semester in a timely fashion.
- Students, who have been consistently failing throughout the semester, may not request an "I" grade in order to avoid a low or failing grade on the student's transcript.
- Students will not be issued an "I" grade by the course instructor for the sole purpose of allowing a student to repeat the course.

### Guidelines for Withdrawal

Students who wish to withdraw from a class after the tuition refund period must withdraw by the appropriate deadline date. Courses of different lengths have different withdrawal dates. A student who does not withdraw officially from a class prior to the last date for withdrawals is subject to an F grade.

Students may withdraw from courses by processing a withdrawal form during regular office hours through the Registration Office, Building S, Room S103, or by phone at (708) 974-2110, or by accessing their academic record through the student portal, MVConnect.morainevalley.edu.

Students who have holds on their record are not permitted to withdraw from courses online. The student must either call (708) 974-2110 or visit the Registration Office (Room S103) during business hours to withdraw from a course. The deadline dates will apply regardless of any holds the student may have that prevent them from withdrawing online. Students with no holds may officially withdraw online through MVConnect on morainevalley.edu.

### Withdrawal Guidelines for Fall 2018

Length of Class	Number of Days to Withdraw (Includes the Start Date)
17 weeks	91 days
16 weeks	84 days
15 weeks	77 days
13-14 weeks	70 days
12 weeks	63 days
11 weeks	56 days

9-10 weeks	49 days
8 weeks	42 days
6-7 weeks	35 days
5 weeks	28 days
4 weeks	21 days
3 weeks	14 days
2 weeks	7 days
1 week	First day of class

### New Withdrawal Guidelines Effective Spring 2019

During fall and spring semesters, a uniform withdrawal date will be in place for courses that are 17-weeks, 16-weeks, and 8- or 9-weeks regardless of course start date. For courses of any other length and for all courses during summer semester, course withdrawal dates are based on start date and length of class. The tables below summarize course withdrawal dates by semester.

### Spring 2019

Length of Class	Withdrawal Date
17-weeks	April 22, 2019
16-weeks	April 22, 2019
First 8-weeks	March 4, 2019
Second 8- or 9-weeks	May 6, 2019

Guidelines for all other length courses:

Length of Class	Number of Days to Withdraw (Includes the Start Date)
15 weeks	77 days
13-14 weeks	70 days
12 weeks	63 days
11 weeks	56 days
10 weeks	49 days
6-7 weeks	35 days
5 weeks	28 days
4 weeks	21 days
3 weeks	14 days
2 weeks	7 days
1 week	First day of class

**Summer 2019**

Length of Class	Number of Days to Withdraw (Includes the Start Date)
11 weeks	63 days
10 weeks	56 days
9 weeks	49 days
8 weeks	42 days
6-7 weeks	35 days
5 weeks	28 days
4 weeks	21 days
3 weeks	14 days
2 weeks	7 days
1 week	First day of class

**Administrative Withdrawal Policy**

Moraine Valley Community College reserves the right to administratively withdraw a student from courses. Administrative Withdrawals may be requested by appropriate college officials for, but not limited to, the following circumstances: death of a student or student's immediate family member, incapacitating medical or psychological illness, call to active military duty, Academic/Non-Academic Complaint determination, Code of Conduct resolution, compliance with other state or federal laws, and to ensure campus safety and security. Students who have an approved Tuition Appeal request may also be considered for an Administrative Withdrawal for a grade change to "W" under this policy.

**Additional Grade Information**

Students must be registered for a course prior to the end of late registration to receive a final grade. After the midterm date of each class, no additions will be made to the class roster.

Information about appealing a final grade in a course may be obtained in the office of the subdivision dean.

All grade reports will be processed after the last official day of the term. Final grade reports will be posted on MVConnect student portal.

A student must refute any grade report or educational record by the end of the semester following the semester in which the course was taken (not including summer term). If a student does not exercise this right within this time frame, the college has a right to refuse to review the student's claim.

**Variable Credit**—Some courses are offered for varying amounts of credit (i.e., one credit hour, two credit hours, three credit hours, etc.). Students who enroll in courses offered with variable credit must indicate at the time of registration the amount of credit for which they are

enrolling. The initial registration commitment can be changed during the designated late registration period but cannot be changed after that time.

**Transcripts**—Upon written request from the student, the Registration Office will mail the student's official transcript to any college, university or agency named. Transcript request forms are available outside the Cashier's Office. There is a fee per transcript. Letter grades earned in developmental and remedial courses will appear on the transcript, but the grades earned in these courses will not be calculated in the GPA that appears on the transcript.

**Academic Load and Classification**

**Full-Time**— students who enroll in 12 or more credit hours during fall or spring semesters, or six or more credit hours during the summer session. The recommended maximum academic load during fall or spring semesters is 18 credit hours; the recommended maximum academic load during summer session is 9 credit hours. Students wishing to register for more than the maximum academic load must meet with an academic advisor or counselor to discuss success strategies, review previous course completion rates, earned grade point average, and work schedules prior to registration for any additional hours.

**Three-Quarter-Time**— students who enroll in nine to 11.9 credit hours during fall and spring semesters

**Half-Time**— students who enroll in six to 8.9 credit hours during fall or spring semesters, or three to 5.9 credit hours during the summer session

**Less than Half-time**— students who enroll in fewer than six credit hours during fall and spring, and fewer than three credit hours during the summer session

For federal financial aid purposes, 12 credit hours or more is considered full-time; 9-11 credit hours is considered three-quarter-time; 6-8 credit hours is considered half-time; and 5 or fewer credit hours is considered less than half-time.

**Course Load for Working Students**— Students who work while attending classes should carefully consider the number of hours they work prior to enrolling. Students should plan to set aside two hours of study for every one hour of class time. For example, if a student wishes to enroll in 12 credit hours, the student should set aside 24 hours per week for study time, plus the 12 hours per week of class time for a total of 36 hours per week to devote to their academic success. With a 36-hour-a-week academic commitment, a maximum of 15 hours per week should be considered for working.

**Classification**

**First-Year Student**— one who has earned less than 30 credit hours

**Second-Year Student**— one who has earned 30 or more credit hours but has not earned a degree

## Attendance Policy

The college values regular class attendance as an essential component contributing to the learning process and therefore expects students to attend all class meetings of each course for which they are registered.

The attendance policy of each instructor is included in the course syllabus distributed by the instructor on the first day of class. Compliance with each instructor's attendance policy is the student's responsibility. An instructor's attendance policy may go into effect with the first class meeting of the course. Late registration does not exempt the student from adhering to the attendance requirements in the course syllabus.

Make-up work or work submitted late due to absence (including an instructor's decision to award less than full credit for work submitted late) will be handled at the discretion of the instructor in accordance with the course syllabus.

Students not regularly attending class are strongly advised to withdraw officially from the course. Students who do not withdraw officially may receive a grade of "F" for the course, which may become a part of the student's permanent record, with the exception of students under Title IX—pregnant and parenting students.

Students who must be absent due to prolonged illness or extended emergency should notify their instructor(s) immediately to determine a plan of action appropriate to the situation. Students may contact the Counseling Center to seek care and support. For assistance, call **(708) 974-5722**.

## Cheating and Plagiarism Policy

Each student is expected to be honest in his or her class work. The college regards cheating or plagiarism in the classroom, testing center and laboratories, and on assignments or examinations, as a serious offense.

Instructors at the college will clearly state their cheating or plagiarism policies and penalties in their course syllabi. The penalty may include a grade of "F" being entered for the student for the course. All incidents of cheating or plagiarism must be reported to the appropriate subdivision office using the official Academic Dishonesty Form. (See Code of Academic Integrity (p. 32))

### **Multiple Violations of the Code of Academic Integrity**

Any violation of the Code of Academic Integrity (p. 32) is a serious offense. Multiple violations of the Code of Academic Integrity represent a breach in the trust given to members of our academic community and risk dismissal from the college. Students who wish to appeal decisions made by faculty members concerning grades given due to violations of Academic Integrity may refer to Student Complaint and Hearing Process (p. 33). Students who have multiple violations will be subject to the following:

Status	Violations	Result Action
Warning	1 Violation	Penalty as defined in the course syllabus.
Caution	2 Violations	In order to register for class, student will be referred to a counselor to determine if any remediation is needed.
Suspension	3 Violations	The student will be suspended for a semester. Upon return, student will be referred to a counselor for further remediation/assistance to prevent future violations.
Dismissal	4 Violations	The student will be dismissed from Moraine Valley. After a year, the student may appeal to the Dean of Student Engagement.

## Forgiveness Policy

The Moraine Valley Forgiveness Policy is designed for those students who have demonstrated success in credit courses at Moraine Valley and who now wish to build a solid academic record that is not undermined by past failures. Candidates for the Forgiveness Policy would include those students who have succeeded in a new major or program after experiencing failure in courses of study that were inappropriate for their talents or ability level.

Other candidates for this policy would be students returning to college after military service, extended work experience, or recuperation from serious illness or personal problems who are now committed to a new beginning in their academic career and can demonstrate their ability to succeed in credit courses.

This policy represents a formal process that allows students to have their cumulative grade point average recalculated without the inclusion of certain previously earned "F" grades. This policy does not raise individual course grades.

This policy does not change federal requirements for calculation of attempted and completed credits to determine eligibility for student financial aid. For transferring students, this policy does not apply to institutions outside of Moraine Valley Community College.

**Eligibility** — A student can petition for forgiveness any time after the following requirements of the policy are met:

- A student must earn, in subsequent terms, a consecutive number of college credit hours with no grades of "P," "F," "D," or "I," and no more than two "W's," equal to the number of earned Moraine Valley College credit hours of "F" grades to be forgiven but no less than 15 credit hours.

“Consecutive hours” means college credit hours earned in sequence and does not refer to consecutive semesters.

- For example, a student who wants 15 credit hours or less of “F” grades forgiven must earn 15 consecutive hours with no grades of “F,” “D,” or “I,” and no more than two “W’s” in subsequent terms (fall/spring/summer). A student who wants to have more than 15 hours of “F” grades (i.e., 18 hours) forgiven must, in subsequent terms, earn a consecutive number of hours with no grades of “F,” “D,” or “I” equal to the number of hours of “F” to be forgiven (i.e., 18 hours).

**Procedures** — A student must complete the official Moraine Valley Application for “F” Grade Forgiveness form and submit it to the Registration Office after the eligibility requirements are fulfilled.

- Grades earned in developmental and remedial courses which include, but are not limited to, COM-085, COM-090, COS-100, IEL-062, IEL-064, IEL-066, IEL-072, IEL-074, IEL-076, IEL-082, IEL-084, IEL-086, IEL-092, IEL-094, IEL-096, MTH-090, MTH-095, MTH-096, MTH-097, MTH-098; RDG-041, RDG-071, RDG-091 cannot be applied toward the eligibility requirements.
- Grades earned at other colleges cannot be applied toward the eligibility requirements.
- Moraine Valley “U” (audit) grades will not be counted when calculating consecutive hours earned.
- Forgiveness of “F” grades will only be granted once for each student.
- When the eligibility requirements have been fulfilled and forgiveness granted, the student’s cumulative grade point average will be recalculated with “F” grades removed from the calculation. The “F” grades will remain on the official transcript with a notation indicating the student has been granted “F” forgiveness.

Any considerations above and beyond these statements should be directed in writing to the vice president of Academic Affairs.

### Grade Point Values and Average

Each letter grade is assigned a specific grade point value per credit hour; however, only certain letter grades are used in the calculation of the student grade point average (GPA), and only certain letter grades will earn college credit. The student should consult the table below:

Letter Grade	Grade Points Value Per Credit Hour	Used in GPA Calculation	College Credit Earned
A	4.0	Yes	Yes
B	3.0	Yes	Yes
C	2.0	Yes	Yes
D	1.0	Yes	Yes
F	0	Yes	No
U	0	No	No
I	0	No	No
W	0	No	No
P	0	No	Yes

### Calculations of Grade Point Average

The college uses the grade point average (GPA) as a measure of academic quality and academic progress. However, the student must be aware of the following distinctions used by the college in the reporting and calculation of the GPA.

For the purposes of the semester grade report, official transcript, honors at graduation, and the President’s and Dean’s Lists, the GPA calculation will not include developmental and remedial courses. Exception: for the purposes of Illinois Veteran Grants, financial aid, and Standards of Academic Progress, the GPA calculation will include developmental and remedial courses.

Developmental and remedial courses include, but are not limited to, COM-085, COM-090; COS-100; IEL-062, IEL-064, IEL-066, IEL-072, IEL-074, IEL-076, IEL-082, IEL-084, IEL-086, IEL-092, IEL-094, IEL-096; MTH-060, MTH-070, MTH-080, MTH-090, MTH-095, MTH-096, MTH-097, MTH-098; and RDG-041, RDG-071, RDG-091.

### Example Calculation (Semester Grade Report)

Course	Letter Grade	Grade Point Value	Credit Hours	Grade Points
COM 101	B	3	x	3 = 9
PSY 101	D	1	x	3 = 3
MTH 095*	C	0	x	0 = 0
BIO 111	A	4	x	4 = 16
IMS 101	F	0	x	3 = 0
Totals*				13 28

\* Since developmental and remedial courses are not included in the GPA calculation, the “grade point value” and

"credit hours" are zero. Thus, dividing 28 grade points by 13 credit hours gives a GPA of 2.154.

A student's cumulative GPA is calculated by using total grade points divided by total credit hours attempted.

### President's List and Dean's List

To be eligible for the President's List and Dean's List for a given semester, students must earn credit in at least nine credit hours of college credit courses which count toward a certificate or a degree.

Students who meet the eligibility requirements and earn at least a 3.5 grade point average (excluding developmental and remedial courses) will be named to the Dean's List. Students who meet the eligibility requirements and earn at least a 3.75 grade point average (excluding developmental and remedial courses) will be named to the President's List. "D," "F" or "I" grades will exclude a student from qualifying for the President's or Dean's List.

Developmental and remedial courses include, but are not limited to, COM-085, COM-090; COS-100; IEL-062, IEL-064, IEL-066, IEL-072, IEL-074, IEL-076, IEL-082, IEL-084, IEL-086, IEL-092, IEL-094, IEL-096, MTH-060, MTH-070, MTH-080, MTH-090, MTH-095, MTH-096, MTH-097, MTH-098; and RDG-041, RDG-071, RDG-091.

### Part-Time Student Scholastic Achievement List

Moraine Valley Community College acknowledges the challenges of students who balance work, family and school responsibilities and recognizes the academic excellence of part-time students through the Part-Time Student Scholastic Achievement List. To be recognized for scholastic achievement, students must meet the following criteria:

- Earn at least a 3.5 cumulative grade point average with at least 24 credit hours (excluding developmental courses).
- Earn at least a 3.5 grade point average for the semester that the distinction is received.
- Attempt less than 12 credit hours of college credit courses which count toward a degree or certificate during the semester that the distinction is received.
- Attempt at least 3 to 8 credit hours for the semester that the distinction is received (excluding developmental courses).

Note: Grades of "D," "F," or "I" will exclude a student from qualifying for the Scholastic Achievement List.

### Standards of Academic Progress

To promote academic progress, the following standards are applied to all students who attempt any credit hours. For Standards of Academic Progress, the College calculates a "SOAP GPA." SOAP GPA includes all grades earned in college credit classes, as well as developmental/remedial courses. SOAP GPA may differ from the semester grade

report and transcript GPA. Questions about this policy should be directed to the Counseling & Career Development Center in Building S, room S202.

Note: Standards of progress for financial aid may be different. See standards of progress (p. 14) for recipients of financial aid.

Status	Standard	Result
<b>Good Standing</b>	Attempted and completed any credit hours and maintain a cumulative SOAP GPA above 2.0	No academic restriction. All students are encouraged to meet with an Academic Advisor each semester for course selection.
<b>Academic Caution</b>	Attempted any credit hours and earned a cumulative SOAP GPA of less than 2.0. Students who withdraw from all credit classes will also be placed on Caution.	Must attend a 90-minute success workshop prior to next registration.
	If semester SOAP GPA is 2.0 or above, and cumulative SOAP GPA is less than 2.0	Student will move to Probation.
	If cumulative SOAP GPA is 2.0 or above	Student will be in Good Standing.
<b>Academic Probation</b>	While on Caution, cumulative and semester SOAP GPA earned are less than 2.0. Student is placed on Probation	Meet one-on-one with a Counselor to review and refine success strategies prior to next registration.
	If semester SOAP GPA earned is 2.0 or above and cumulative SOAP GPA is less than 2.0	Student remains on Probation.

	If cumulative SOAP GPA is 2.0 or above	Student will be in Good Standing.
<b>Academic Suspension</b>	While on Probation, cumulative and semester SOAP GPA earned are less than 2.0	Student is suspended for the next semester. Must meet one-on-one with a Counselor prior to next registration.
	If a student on Suspension has a cumulative SOAP GPA of 1.5 or above, an appeal process is available	Student must follow the appeal instructions listed in the Suspension notice letter.
	If semester SOAP GPA is 2.0 or above and cumulative SOAP GPA is less than 2.0 while on Suspension, student moves to Probation	Must meet one-on-one with a Counselor to celebrate hard work and review strategies prior to next registration.
	If cumulative SOAP GPA is 2.0 or above	Student will be in Good Standing.
<b>Academic Dismissal</b>	First semester after returning from Suspension, cumulative and semester SOAP GPA earned are less than 2.0	Dismissal for two semesters and one summer (one academic year). Must petition for reinstatement by meeting with a Counselor.
	After approved reinstatement, if semester SOAP GPA earned is 2.0 or above and cumulative SOAP GPA is less than 2.0	Student will remain on Dismissal standing until cumulative SOAP GPA is 2.0 or above and student moves to Good Standing.

COM-101	B	3	x	3	=	9
PSY-101	D	1	x	3	=	3
MTH-095*	C	2	x	4	=	8
BIO-111	A	4	x	4	=	16
IMS-101	F	0	x	3	=	0
<b>Totals*</b>				17		36

\* Since developmental and remedial courses are included in the GPA calculation for Standards of Academic Progress, dividing 36 grade points by 17 credit hours gives a GPA of 2.118.

## Early Warning Support System

The Early Warning Support System is a system designed to identify and intervene with students who may be encountering academic difficulties and are in jeopardy of failing a class. Early in the semester, teaching faculty will identify such students and will refer those students to the Counseling & Career Development Center. A counselor will then reach out to the student to offer assistance and support, as well as to collaborate with the student on strategies that can empower them to be successful.

### Example GPA Calculation (Standards of Academic Progress)

Course	Letter Grade	Grade Point Value	Credit Hours	Grade Points

# Graduation

The graduation ceremony is held once a year at the end of spring semester for graduates from the previous summer and fall semesters and for current spring graduates.

Moraine Valley grants associate's degrees and various occupational certificates. Associate in Arts, Associate in Science, and Associate in Fine Arts degrees are designed for Transfer Program students. The Associate in Applied Science degree and occupational certificates are designed for Career Program students.

## Graduation Requirements for All Associate Degrees

The following requirements must be met by students pursuing an associate degree.

- A minimum cumulative grade point average of 2.0, which does not include developmental and remedial courses.
- A "C" grade or better in COM-101 and a "C" grade or better in COM-102 when the course is required for a specific program or degree.
- A minimum of 60 credit hours, including courses that meet the general education and any specific program requirements for the degree.
- Developmental and remedial courses cannot be applied toward an associate's degree unless specified in the program description but can be applied to full or part-time student status. Developmental and remedial courses include, but are not limited to, COM-085, COM-090; COS-100; IEL-062, IEL-064, IEL-066, IEL-072, IEL-074, IEL-076, IEL-082, IEL-084, IEL-086, IEL-092, IEL-094, IEL-096; MTH-090, MTH-095, MTH-096, MTH-097, MTH-098; and RDG-041, RDG-071, RDG-091.
- A student must earn at least 15 credit hours at Moraine Valley.
- A completed graduation petition must be submitted to the Records Office by the stipulated deadline.
- All degrees and certificates will be conferred and transcribed with the date (December/May/August) all requirements for that degree/certificate were met.
- Public Act 87-581, which states, "Programs shall at least: require each public institution of higher education to include, in the general education requirements for obtaining a degree, course work on improving human relations to include race, ethnicity, gender, and other issues related to improving human relations to address racism and sexual harassment on their campuses, through existing courses." Students at Moraine Valley Community College satisfy the requirements of this law through COM-103, which is a required course in each of the degree programs (A.A., A.S., A.A.S., A.F.A., and A.G.S.).

- Students must meet the degree or certificate requirements in effect at the time they first enrolled and earned credit (earned credit is defined as receiving a "D" or above in college-level or "C" or better in developmental courses) or the requirements in effect during any subsequent year until the degree or certificate is completed. However, if enrollment has been interrupted by six or more consecutive semesters (including summer semesters), the student must meet the degree or certificate requirements in effect at the time of re-enrollment with earned credit (earned credit is defined as receiving a "D" or above in college level or "C" or above in developmental courses) or the requirements in effect after re-enrollment until the degree or certificate is completed. Exceptions are the selective admission programs. Students who are readmitted to these programs must follow the requirements in effect at the time of their readmission to the program. In all cases, students must meet all degree or certificate requirements for the selected year. Requirements from more than one year cannot be combined.

## Additional Requirements

### **Associate in Arts (A.A.), Associate in Science (A.S.) and Associate in Fine Arts (A.F.A.)**

See Transfer Programs (p. 39) section of this catalog for detailed information.

### **Associate in Applied Science (A.A.S.)**

In addition to the graduation requirements for all associate degrees listed above, a minimum level of competency in mathematics is required for successful degree completion and graduation for all A.A.S. degrees. This minimum competency may be demonstrated in the following ways:

- Placement into MTH-120 or higher (appropriate Compass score or ACT score of 20 or higher in Mathematics. See Academic Placement Tests (p. 10.); or
- Successful completion with an earned grade of "C" or better in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent college-level transfer course from another college with an earned grade of "C" or better.

### **Occupational Certificates**

The college offers several programs of occupational specialization. Completion of one of these programs is recognized with a certificate.

The requirements are the following:

- successful completion of the specified courses for the certificate;
- minimum overall grade point average of 2.0 in the courses required for the certificate;
- at least 50 percent of the certificate hours must be completed at Moraine Valley.

Developmental and remedial courses cannot be applied toward a certificate unless specified in the program description. Developmental and remedial courses include, but are not limited to, the following: COM-085, COM-090; COS-100; IEL-062, IEL-064, IEL-066, IEL-072, IEL-074, IEL-076, IEL-082, IEL-084, IEL-086, IEL-092, IEL-094, IEL-096; MTH-090, MTH-095, MTH-096, MTH-097, MTH-098; and RDG-041, RDG-071, RDG-091.

- submission of a graduation petition to the Records Office by the stipulated deadline.

## Second Associate Degree

Moraine Valley will grant more than one associate degree to the same student provided all specified requirements are met for that particular degree.

Students may earn an Associate in Arts or Associate in Science degree, but not both.

Students may earn more than one Associate in Applied Science degree.

Students with an Associate in Applied Science degree who wish to complete the requirements for either an Associate in Arts, Associate in Science, or Associate in Fine Arts degree are advised to review the section of the catalog that outlines Transfer Program requirements. Students should meet with a counselor or advisor because not all courses required in the respective Associate in Applied Science programs are intended for or accepted as transfer credit to senior institutions.

Students who have received an associate degree from another college may earn an associate degree from Moraine Valley by completing the program requirements for the degree and fulfilling the general graduation requirements.

Students who seek a second degree from Moraine Valley are subject to published petition deadlines.

## Graduation Petition Deadlines

Candidates for completion of a certificate or degree must file a graduation petition in the Records Office.

Deadlines for filing petitions are the following:

Fall graduation (December)—Sept. 15

Spring graduation (May)—Feb. 1

Summer graduation (August)—June 1

If the deadline date falls on a weekend, the deadline is moved to the next business day.

Six weeks is required for final certification and mailing of diplomas.

## Honors

Students who complete a degree program reflecting scholarly achievement are honored at graduation. The cumulative grade point average will be used to determine graduation honors. This grade point average includes

courses that count toward a certificate or degree and does not include developmental and remedial courses. Degree graduates with a cumulative grade point average between 3.9 and 4.0 are recognized as graduating summa cum laude. Degree graduates with a cumulative GPA between 3.75 and 3.89 are recognized as graduating magna cum laude. Degree graduates with a cumulative GPA between 3.5 and 3.74 are recognized as graduating cum laude.

Certificate graduates are also recognized at graduation for their achievements. Certificate graduates with a cumulative GPA between 3.75 and 4.0 are recognized as graduating with high honors. Certificate graduates with a cumulative GPA between 3.5 and 3.74 are recognized as graduating with honors.

At the commencement ceremony, honor graduates wear cords to designate specific academic honors. The different colored cords represent the following honors:

### Associate Degrees

Summa Cum Laude—gold cord

Magna Cum Laude—silver cord

Cum Laude—white cord

### Certificates

With High Honors—silver and green cord

With Honors—white and green cord

Members of the college's honor society, Phi Theta Kappa, wear stoles at the commencement ceremony to designate their honor society. These stoles are available prior to graduation by contacting the honor society advisor at **(708) 974-5353**.

# Student Rights and Responsibilities

## Human Rights Statement

It is the policy of Moraine Valley Community College not to discriminate on the basis of race, color, age, sex, religion, national or ethnic origin, disability, creed, ancestry, marital status, sexual orientation, gender identity, gender expression, arrest record, military status or unfavorable military discharge, citizenship status, or other legally protected characteristics or conduct in its educational programs, activities or employment practices. Such discrimination is prohibited by Titles VI and VII of the Civil Rights Act, Title IX of the Educational Amendments, Sections 503 and 504 of the Rehabilitation Act of 1974, the Age Discrimination Acts of 1974 and 1975, and other federal and state statutes and regulations. Inquiries concerning application of Title IX may be referred to the Title IX coordinator, **(708) 974-5277**, 9000 W. College Pkwy., Palos Hills, IL 60465. Also see [morainevalley.edu/right-to-know](http://morainevalley.edu/right-to-know). Other inquiries concerning the application of other federal or state laws may be directed to the Director of Human Resources, **(708) 974-5704**, 9000 W. College Pkwy., Palos Hills, IL 60465.

## Chosen Name

Moraine Valley recognizes that many of its students use a name other than their legal name. Students may fill out the Chosen Name Request form to change their first name only. Forms are available at the Registration Office, Building S, Room S103; Admissions Office, Building S, Room S101; Multicultural Student Affairs, Building S, Room S216; or, Title IX Coordinator's office, Building G, Room G253. Forms must be submitted at the Registration Office. Request must be submitted two weeks prior to the start of the semester. A chosen name doesn't change the student's legal name on official academic records such as transcripts and diplomas.

## Academic Community Statement

As members of the Moraine Valley Academic Community, we are accountable to each other for upholding the Core Values of the college: integrity, responsibility, respect, fairness, and diversity. Together, we envision a positive learning environment that promotes the open exchange of ideas by practicing civility as defined in the Code of Student Conduct (p. 33) and ethical learning behavior as defined in the Code of Academic Integrity (p. 32).

## Code of Academic Integrity

Academic Integrity serves as the foundation to the learning process that enables the open exchange of ideas among

students, faculty, staff, and administrators. We are committed to the values of Academic Integrity:

- Honesty: deal truthfully in speech and action
- Responsibility: be accountable to oneself and others
- Integrity: adherence to a standard of values
- Trust: mutual confidence in word and action
- Fairness: consistent and equal treatment of individuals—free of favoritism
- Respect: honor yourself and others

(Adapted from the Center for Academic Integrity)

Students will uphold the Code of Academic Integrity by understanding the policies and expectations in each of their classes. Students will complete course assignments, exams, learning activities, and other assessments in ways that reflect the values of Academic Integrity and encourage others to do the same.

## Academic Misconduct

Breaking the Code of Academic Integrity violates the trust of the larger academic community and, therefore, undermines the open learning environment of the college. Broad categories of misconduct may include:

- misrepresenting his or her work,
- fraudulently or unfairly advancing his or her academic position,
- being a party to another student's failure to maintain academic integrity,
- and violating the principles of academic integrity in any other manner (adapted from Cornell University, Code of Academic Integrity).

Acts of Dishonesty include but are not limited to:

A) Cheating which includes, but is not limited to:

- i) use of any unauthorized assistance, resources, materials or electronic/cellular devices with or without photographic capability in taking quizzes, tests or examinations;
- ii) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments;
- iii) the acquisition, without permission, of a test or other academic material belonging to Moraine Valley Community College, to any department, or to any staff;
- iv) reuse of work from another class without instructor approval.

B) Plagiarism which includes, but is not limited to:

- i) purposeful use, by paraphrase or direct quotation, of the published or unpublished work of another person without acknowledgment;

- ii) unacknowledged use of materials prepared by another person;
- iii) use of an agency engaged in the selling of term papers or other academic materials;
- iv) reuse of previously written work without proper attribution and instructor approval.

### Academic Integrity Violation Process

When a faculty member observes a violation of the Code of Academic Integrity or has evidence to suspect that a violation has occurred, the faculty member initiates the process to determine the extent of the violation and any penalties that may result. The faculty member must act on potential violations as soon as possible but no longer than five college days following the discovery of evidence of a violation or immediately before/after the next class period where the student is present. It is expected that students will complete their entire academic career with zero purposeful violations of Academic Integrity. Thus, any purposeful violation is seen as significant.

### Code of Student Conduct

The mission of Moraine Valley is to educate the whole person in a learning-centered environment, recognizing our responsibilities to one another, to our community, and to the world we share. Consistent with our mission and core values of integrity, responsibility, respect, fairness, and diversity, it is expected that students will govern themselves appropriately. The college recognizes a student's right within the institution to freedom of speech, inquiry and assembly, to the peaceful pursuit of an education, and to the reasonable use of services and facilities of the college.

The Code of Student Conduct ("the Code") defines the standards of conduct and establishes procedures to provide a full and fair opportunity for review of alleged student misconduct.

The Code reasonably limits some activities and prohibits certain behaviors, which could interfere with the orderly operation of the college and the pursuit of its goals. Each student is responsible for knowledge of and compliance with the Code. The college further recognizes each student's right to procedural due process, including notice and a fair hearing.

The Code is available in hard copy in the Code of Conduct Office (Room U115) or online in the student portal. To file a report or to request information, contact the dean of Students and Compliance Officer at **(708) 974-5390** or the coordinator at **(708) 608-4272**.

### Student Complaint and Hearing Process

Students have the right to express concern if they believe to have been treated unfairly, subjected to harassment, or discriminated against. The student complaint and hearing process provides a means to express such concern,

request some form of relief, and receive an objective hearing. Student complaints are categorized in two ways:

1. Those arising out of an academic decision, primarily, the assignment of a final grade.

2. Those unrelated to an academic decision.

You are encouraged to use the complaint and hearing process when you believe it is necessary to do so. The right to complain, however, is accompanied by the responsibility to act with integrity. As such, it is inappropriate to file unfounded complaints against a student or staff person. Members of the college staff can assist you in deciding if filing a complaint is an appropriate step.

#### **Student Complaints Arising out of Academic Decisions**

— Academic decisions are defined as those actions that affect the student's academic standing at the college. Primarily, but not exclusively, these actions involve the assignment of a final grade.

Students have the right to express their concerns regarding the fair treatment of their academic achievements, keeping in mind that faculty have complete and sole responsibility for determining and issuing academic credit and final grades.

The following procedure should be used to appeal an academic decision.

1. Express your concerns to your instructor: Try to resolve the situation informally.

2. If Step 1 does not resolve your concerns, you may appeal in writing to the faculty member's dean, using the Academic Complaint form that is available in any academic subdivision office.

Remember that complaints must be initiated within 20 college days of the occurrence of the alleged violation. The dean will thoroughly investigate your concerns and communicate the faculty member's decision in writing, normally within 40 college days of the written appeal's initiation.

3. If you are not satisfied after your appeal to the dean, you may continue the appeal to the vice president of Academic Affairs in writing within 10 college days.

The vice president will investigate your concerns. This investigation may involve the convening of a committee to consider the appeal. Once completed, the vice president will communicate in writing the faculty member's final decision, normally within 70 college days of the written appeal's initiation.

The decision made after the investigation by the vice president of Academic Affairs will be final.

*Note: A college day is defined as any day excluding Saturdays, Sundays, breaks in the academic year or any holiday recognized by the college.*

#### **Student Complaints Unrelated to Academic Decisions**

— If a student has a complaint about the conduct of an instructor, member of the staff, another student, or about

any aspect of college operations (for example, admission, refunds, withdrawal, parking), the complaint shall be handled according to the following procedure. (This procedure does not apply to allegations of sexual harassment, for which a separate process exists.)

1. When appropriate, express your concerns to the person immediately responsible. Attempt to resolve the complaint informally at this level.
2. If Step 1 does not resolve your concerns, you may file a complaint in writing to the dean of Students and Compliance Officer, using the Non-Academic Complaint Form available from the Code of Conduct Office (U115) or from the office of the vice president of Student Development (D201). Remember that complaints must be initiated within 20 college days of the occurrence of the action being grieved. The dean of Students and Compliance Officer will refer your complaint to the administrator responsible for the area of concern. A thorough investigation will be conducted, and you will be provided with a written determination, normally within 40 college days of the written appeal's initiation.
3. If resolution of your concerns does not occur, you may ask the vice president of Student Development to review your complaint. You have 10 college days, after receiving the written determination, to request further review.

The vice president of Student Development will either address the complaint directly or refer it to the vice president responsible for the area of concern. The appropriate vice president will conduct an investigation and communicate a written decision to you, normally within 70 college days of the written complaint's initiation. The action of the vice president is final.

*Note: A college day is defined as any day excluding Saturdays, Sundays, breaks in the academic year or any holiday recognized by the college.*

### **Sexual Discrimination, Harassment and Misconduct**

Moraine Valley Community College is committed to providing a learning atmosphere that is free from intimidation or harassment; therefore, sex discrimination will not be tolerated. The college does not discriminate on the basis of sex in its educational programs and employment policies in conformance with Title IX of the Education Amendments of 1972, Title VII of the Civil Rights Act of 1964, the Illinois Preventing Sexual Violence in Higher Education Act, and relevant sections of the Illinois Human Rights Act. This policy complies with the requirements of the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act and the Violence Against Women Act, which mandate procedures to address sexual violence. In accordance with Title IX, upon receipt of a complaint of sexual discrimination, sexual harassment, sexual misconduct, or sexual assault, the college will take

immediate action and appropriate steps to investigate what occurred, to take prompt and effective action to end the harassment, to remedy the effects, and to prevent the harassment from occurring again.

The college has designated the dean of Student Success as the Title IX coordinator.

Dr. Jo Ann Jenkins  
Dean of Student Success  
Phone: (708) 974-5277  
Office Location: Building G, Room G253  
Email: jenkinsj52@morainevalley.edu

The full policy and procedures are available in the Code of Conduct Office (Building U, Room U115) or online on the student portal. To file a complaint or to request information, contact the Title IX coordinator or the dean of Students and Compliance Officer at **(708) 974-5390**.

### **Privacy Rights of Parents and Students**

Moraine Valley complies with all rules and regulations issued by the United States Department of Health and Human Services with respect to privacy rights of parents and students.

**1974 Family Educational Rights and Privacy Act as amended** — This act requires that students be advised of their rights concerning education records and of certain categories of public information which the college has designated "directory information." Moraine Valley Community College sends an email notification to all students on an annual basis explaining these rights. This notification's purpose is to explain the requirements designed to protect the privacy of student records, student's ability to access their record and under what conditions the records may be released. The full policy and procedures regarding the Family Educational Rights and Privacy Act can be found on the college's website.

Students have the right to inspect and review all records that meet the act's definition of "education records." Education records are all records maintained by the college about each student.

The following are exceptions:

- employment records
- medical, psychological and counseling records used solely for treatment
- records of the Police Department
- financial records of a student's parents
- confidential letters and statements of recommendations placed in records prior to Jan. 1, 1975
- confidential letters and statements of recommendation for admission, employment or honorary recognition placed in records after Jan. 1, 1975, for which students have waived the right to inspect and review

Records are not maintained in a central location on campus. Requests to review records must be made separately to each office that maintains records. Requests must be made in writing and presented to the appropriate office. That office will have up to 45 days to honor requests. For most students these offices include the Cashier's Office; Bookstore; Admissions; Records; Registration; Financial Aid; Corporate, Community and Continuing Education; Counseling and Career Development Center; Library; Academic Skills Center; Center for Disability Services; and Code of Conduct.

Students may challenge any information contained in education records that may be misleading or inappropriate. This right does not extend to reviewing grades unless the grade assigned by an instructor was inaccurately recorded. To challenge information in a file, students must make a written request for a hearing to the vice president of Student Development.

The hearing shall be held within a reasonable period of time after the administration has received the request. The student shall be given notice of the day, place and time well in advance of the hearing. The hearing will be conducted by three staff members and two students appointed by the vice president of Student Development. A decision of the panel will be final and based solely on the evidence presented.

If the hearing is not conducted according to the student's expectation, he or she may insert a note of exception in the record. The institution will correct or amend any documented record in accordance with the decision of the hearing panel.

Under the act, prior written consent must be obtained before information may be disclosed to third parties unless they are exempted from this provision. These exemptions include the following:

- requests from the college staff with a legitimate educational "need to know"
- requests in accordance with a lawful subpoena or court order
- requests from representatives of agencies or organizations from which students have received financial aid
- requests from officials of other educational institutions in which students enroll
- requests from other persons specifically exempted from the prior consent requirement by the act (certain federal and state officials, organizations conducting studies on behalf of the college, accrediting organizations)
- requests for directory information

In accordance with the act, the college has designated the following categories of information as public. This information will be released to any inquirer with the approval of the dean of Enrollment Services unless

students request that all or part of this list be withheld. These categories are the following:

- name
- city/town of residence
- major field of study
- participation in officially recognized activities and sports
- weight and height of members of athletic teams
- dates of attendance (including current classification and year, matriculation and withdrawal dates)
- degrees and awards received (type of degree and date granted)

If students wish to file a request withdrawing some or all of the information in the directory classification, they should report to the Registration Office and complete the necessary form. After students file this form, the Registration Office will notify the appropriate college offices and begin to comply as soon as possible.

All information, records, and correspondence are directed only to the student. These rights to educational records transfer to the student when he/she reaches the age of 18 or attends a school beyond the high school level. Under the act, prior written consent from the student must be obtained before information may be disclosed to a third party unless they are exempted from the provision.

**Requests in accordance with a lawful subpoena or court order:**

This request must be routed to the dean of Enrollment Services Office. The dean will notify the owner of the student records about the lawful order to release student records. Illinois court rules require seven days before the date on which the appearance is required for a deposition, hearing, or trial. See guidelines from Illinois Council of School Attorney at [iasb.com/law/FAQsubpoena.pdf](http://iasb.com/law/FAQsubpoena.pdf).

If students have questions regarding the provisions of the act, they may contact the office of the dean of Enrollment Services, S116.

**Rights and Responsibilities for Students with Disabilities**

Moraine Valley Community College complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, which prohibit discrimination against individuals with disabilities.

According to these laws, no otherwise-qualified individual with a disability shall, solely by reason of his/her disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity of a public institution receiving federal financial assistance.

The college's Section 504 coordinator is the director of the Center for Disability Services, and inquiries about

accommodations for students with disabilities should be directed to the Center for Disability Services, Building S, Room S114, **(708) 974-5711** (TTY 711).  
[morainevalley.edu/cds](http://morainevalley.edu/cds)

### Use of Cellular Phones and Other Devices

Students, faculty, staff, and college visitors may not use and must silence cell phones, pagers and other communication devices in all instructional areas, which include all labs, classrooms, conference rooms, and lecture halls during instructional sessions, workshops and meetings; the Library, the Testing Center (B101), and other areas designated by the college.

### Presence of Children and Dependent Family Members on Campus

For the safety of children on campus, children and dependent family members may not accompany students to class. Also, children and dependent family members may not be left unattended on the campus grounds, whether in college buildings, extension centers or at any college event.

### Smoke-Free Facilities

Smoking is prohibited on all state-supported campuses of higher education in Illinois. Smoking is not allowed anywhere on the Moraine Valley campuses except inside personal vehicles. Persons found in violation will be ticketed and subject to student or employee discipline.

### Prohibition of Concealed Carry on Moraine Valley Community College Campus

Moraine Valley Community College District 524 expressly prohibits the carrying of concealed weapons on college owned or controlled building and grounds, athletic fields, artistic or entertainment venues, officially recognized college-related organization property, whether owned or leased, and any real property including parking areas, sidewalks, and common areas under the control of Moraine Valley Community College District 524, as pursuant to Illinois Public Act 098-0063, the Firearm Concealed Carry Act. Nothing in this policy restricts the carrying or use of firearms for the purpose of law enforcement training programs, or possession by sworn law enforcement officers.

### Sexual Assault Reporting

The Moraine Valley Police Department is committed to assisting all members of the college community in providing for their safety and security. The annual security compliance information is available on the Moraine Valley Police Department website at [morainevalley.edu/police](http://morainevalley.edu/police).

Students who would like to receive a copy of the department's booklet entitled "Annual Crime Statistics and Security Report", stop by the Police Department, located in

Building P, 9000 W. College Pkwy., Palos Hills, IL, or request a copy be mailed by calling **(708) 974-5555**.

The website and booklet contain information on campus security and personal safety, including topics such as crime prevention, Moraine Valley Police Department's law enforcement authority, crime reporting policies, disciplinary procedures, and other matters of importance related to campus security. The website and booklet also contain statistics for the past three years on reported crimes that occurred on campus, in various off-campus buildings, on property used by the college, and on public property within or immediately adjacent to and accessible from the campus.

Moraine Valley Community College Police Department supports ongoing prevention and awareness campaigns that focus on dating violence, domestic violence, sexual assault, and stalking as described within the provisions of the Violence Against Women Act revisions issued October 2014. The department encourages victims and witnesses to report and assist in the identification and prosecution of those who perpetrate sexual violence within the community. Victims and witnesses may anonymously report information to the police by going to the Moraine Valley Police Department website and clicking on "Silent Witness."  
[morainevalley.edu/police](http://morainevalley.edu/police)

### Sex Offender Procedure

The Campus Sex Crimes Prevention Act of 2002 is a federal law that provides for the tracking of convicted sex offenders enrolled at or employed by institutions of higher education. This Act requires colleges to issue a statement advising the campus community where information concerning registered sex offenders may be obtained and makes the college responsible for providing the name, address, birth date, place of employment, school attended, and offense to any individual on campus requesting information concerning sex offenders attending or employed by the college.

The Illinois State Police maintains a list of all sex offenders required to register in the State of Illinois. This database is updated daily and can be found at [www.isp.state.il.us/sor](http://www.isp.state.il.us/sor). The Moraine Valley Community College Police Department also maintains a sex offender list that contains the names and information for all known sex offenders enrolled at or employed by the college. This sex offender list is available for the College community to view at the Moraine Valley Community College Police Department. All students or employees, who have been designated as a Registered Sex Offender, must register with the college Police Department as required by Illinois 720 ILCS 5/11-9.3-II Sex Offender Act. Persons who are not in compliance are subject to arrest by the campus police.

Additionally, federal and state laws require sex offenders to take certain steps upon enrollment in an institution of higher

education, regardless of whether their enrollment is full or part time. Pursuant to the Campus Sex Crimes Prevention Act, individuals are required to register as a sex offender in the jurisdiction where their residence is located and in the jurisdiction where the college they attend is located. In order to comply with federal and state registration requirements related to college enrollment, a sex offender must register within five days of attendance at a college by reporting in person to the Campus Police Department. Students who fail to register their status as sex offender are in violation of the registration act and face arrest and expulsion from the college.

Once a registered sex offender is identified as an enrollee of the college, the following procedure will be followed:

1. Upon enrollment of a registered sex offender, the Dean of Students and Compliance Officer or his designee will meet with the college's Police Chief or his designee to review the student's class schedule and determine which restrictions should be put in place.
2. After determining the appropriate restrictions for a particular student, the Police department will contact the registered sex offender student for a meeting to discuss the restrictions which will be in place while the student is on the college's campus.
3. During the meeting with the Police Chief (or his designee) and the registered sex offender student, Police Department will provide the student a written letter containing the restrictions the student must abide by while on the College's campus and will discuss each restriction verbally with the student. During this meeting, the student will also be advised that his/her failure to comply with the restrictions outlined in the letter may result in denial of enrollment, access to campus and/or the decision to initiate police action against them by the college police department.
4. If a sex offender student is enrolled in a college class along with a student who is under the age of 18, the Dean of Students and Compliance Officer will notify the instructor of the class of the student's status as a sex offender. The Dean of Students and Compliance Officer will also determine if there are other College staff members who need to be notified of a student's status as a registered sex offender in order to protect persons under the age of 18 on the College's campus. In some circumstances, the registered sex offender may be required to enroll in a course section that does not contain minors.
5. The Police Chief or his designee will notify the director or the Moraine Valley Child Care and any other college program solely serving students under the age of 18, of all registered sex offenders enrolled in or employed by Moraine Valley Community College.
6. The College's Police Department will maintain a database of all registered sex offender students and employees. The database will contain identifier information

as outlined in the Campus Sex Crimes Prevention Act. This information will be available for review by any person requesting information on registered sex offenders enrolled or employed by the college.

## Drug-Free Schools and Communities Act

As a requirement of the Drug-Free Schools and Communities Act Amendments of 1989 [EDGAR Part 86], Moraine Valley Community College sends an email notification to all students and employees on an annual basis. This notification's purpose is to serve as a reminder of the standards of conduct relating to drugs and alcohol, the health risks associated with drug and alcohol abuse, the availability of support for those experiencing drug or alcohol problems, the MVCC policies related to the illegal possession, use or distribution of drugs or alcohol, and the internal sanctions and federal and state legal penalties that may result from violations. This notification can be found in full on the college's website.

## Student Religious Observances

Moraine Valley Community College does not discriminate against students based on religious observance and will reasonably accommodate the religious observance of individual students in regard to admissions, class attendance, and the scheduling of examinations and work requirements. It is the responsibility of the student to notify his or her instructors of any absences necessitated by religious observance, in accordance with the following procedure:

1. A student who anticipates that he or she will be unable, because of his or her religious observance, to attend class or to participate in any examination, study, or work requirement on a particular day, must notify his or her instructors and/or supervisors in writing as soon as possible, but no later than by the end of the second week of class.
2. Upon receipt of such written notification, it is the responsibility of each faculty member and/or supervisor to provide the student with an opportunity to make up any examination, study, or work requirement the student may miss due to the absence.
3. An absence due to religious observance does not relieve a student from responsibility for any part of the course work required during the period of absence. As religious holiday calendars are available in advance of each semester, faculty may insist, where feasible, that a student complete any course work or examination(s) prior to the anticipated absence. In addition, faculty policies regarding course attendance vary widely; students are responsible for knowing these policies and for communicating any anticipated absences for religious observance to each of their instructors.

4. A student who believes that he or she has been denied reasonable accommodations in accordance with Board Policy 4610 or this procedure should first express his or her concerns to the instructor or supervisor and try to resolve the situation informally. If the situation is not resolved informally, the student may appeal in writing to the faculty member's dean, using the Academic Complaint form that is available in any academic subdivision office or on the MVConnect portal.

This procedure complies with the *University Religious Observance Act*, which reads, in part:

*Any student in an institution of higher learning, other than a religious or denominational institution of higher learning, who is unable, because of his or her religious beliefs, to attend class or to participate in any examination, study, or work requirement on a particular day shall be excused from any such examination, study, or work requirement and shall be provided with an opportunity to make up the examination, study, or work requirement that he or she may have missed because of such absence on a particular day; provided that the student notifies the faculty member or instructor well in advance of any anticipated absence or a pending conflict between a scheduled class and the religious observance and provided that the make-up examination, study, or work does not create an unreasonable burden upon the institution. No fees of any kind shall be charged by the institution for making available to the student such an opportunity. No adverse or prejudicial effects shall result to any student because of his or her availing himself or herself of the provisions of this Section. 110 ILCS 110/1.5(b).*

# Transfer Programs

Moraine Valley Community College offers a wide variety of courses specifically designed for transfer. This enables students to complete their first two years of coursework leading toward a bachelor's degree in virtually any field of study at a four-year college or university. The keys to a successful transfer are to start planning immediately and to select coursework carefully. Students who already know their intended transfer institution should refer to that school's catalog. Students are strongly encouraged to work with Moraine Valley academic advisors who are available to help students with specific course selection as well as developing an individual educational plan.

Students who plan to complete an associate degree and transfer as a junior in their major should achieve the following goals:

- 1. Complete the Associate in Arts (A.A.), Associate in Science (A.S.), or Associate in Fine Arts (A.F.A.).** The general education requirements and graduation requirements for these degrees are described in this section.
- 2. Fulfill the lower-division (freshman/sophomore-level -courses) general education requirements of the institution students plan to attend.** Every four-year college or university has different general education requirements. Transfer guides summarizing these requirements for the colleges and universities popular with Moraine Valley students are available in the Academic Advising Center. For other schools, students should consult the catalog and/or contact the intended transfer institution for additional information. In most cases, if students select their general education coursework carefully, they can simultaneously satisfy the general education requirements for both Moraine Valley and the transfer institution. (Also see Illinois Articulation Initiative (p. 39).)
- 3. Fulfill the lower-division requirements in your major field of study.** Students should familiarize themselves with the criteria for admission into the specific program major at the college where a student plans to transfer. In many cases, specific lower-division coursework is required. Detailed information for many schools is available in the Academic Advising Center. Ask for transfer guides for specific majors and/or consult the catalog of the transfer school.
- 4. When a student is ready to transfer, obtain a Request for Transcript form from Admissions, Records and Registration.** Complete the form, requesting that a transcript of the Moraine Valley coursework be sent to the transfer school. Be certain to verify that the transcript has been received by the transfer institution. If a student experiences difficulty in transferring any of his or her courses, contact the transfer articulation coordinator for

assistance. Generally, when a college official intercedes on behalf of the student, he or she is able to facilitate the resolution of transfer problems.

## Associate in Arts Degree (A.A.)

These programs are for students who plan to major in disciplines such as art, business, criminal justice, education, English, foreign language, geography, history, law, music, philosophy, physical education, political science, psychology, sociology, social work, speech and theater.

## Associate in Science Degree (A.S.)

These programs are for students who plan to major in a science-related discipline such as biology, chemistry, computer science, dentistry, engineering, geology, mathematics, medicine, medical technology, nursing, pharmacology, occupational and physical therapy, physics and veterinary medicine.

## Associate in Fine Arts Degree (A.F.A.)

The A.F.A. is designed to meet the unique needs of students who plan to major in art or music. Typically, the bachelor's degree for art or music majors requires students to complete a sequential list of courses to support a portfolio in the major during their freshman and sophomore years, and will require that students complete additional general education at the transfer school. Students who are interested in art education are recommended to earn an A.A. degree rather than an A.F.A. degree.

## Associate in General Studies Degree (A.G.S.)

The A.G.S. is designed to meet the unique needs of a student population with educational goals that do not require a traditional degree program where a specific program of study is required. This degree is not intended to be an entering student's default program of study, and student must work with an academic advisor to determine if they fall into the special population this degree is designed to target.

## Illinois Articulation Initiative

Moraine Valley Community College is a participant in the Illinois Articulation Initiative (IAI). Sponsored by the Illinois Board of Higher Education and the Illinois Community College Board, this initiative makes it easier for students to transfer credit between more than 100 participating Illinois colleges and universities.

The initiative includes an agreed-upon Illinois General Education Core Curriculum and recommended freshman- and sophomore level courses for specific majors in the Illinois Baccalaureate Majors' Curricula. Completion of the general education core curriculum at any participating institution in Illinois assures transferring students that lower-

division, campuswide general education requirements for an Associate in Arts or Associate in Science or bachelor's degree have been satisfied upon transfer to another participating institution. The receiving institution may require admitted transfer students to complete an institution wide and/or mission-related graduation requirement beyond the scope of the general education core. The Associate in Fine Arts degree does not satisfy the entire IAI general education core; therefore, students who complete this degree must meet the general education requirements for the bachelor's degree of the university to which they plan to transfer. However, students wishing to meet the IAI general education core should consult with an academic advisor. Students who complete the general education core and the prescribed major curricula will be better prepared to transfer as juniors in the baccalaureate major at participating schools. The most current list of participating schools can be found online at [iTransfer.org](http://iTransfer.org).

Specific IAI courses offered at Moraine Valley are maintained through the IAI course database. Use this link and select Moraine Valley to see a list of available courses: *IAI Course Search*. IAI numbers are also presented as part of the course descriptions in this catalog.

Also, use [transferology.com](http://transferology.com) or [mycredittransfer.org](http://mycredittransfer.org) to verify how any of your Moraine Valley courses may transfer.

## Transfer Agreements

All colleges and universities accept Moraine Valley's courses on the basis of a review of individual transcripts. By carefully constructing an educational plan, students can select courses that will meet the general education requirements and the lower-division major course requirements specified by the transfer school.

The following Illinois universities have a compact agreement with Moraine Valley and accept Moraine Valley's Associate in Arts and Associate in Science degrees as satisfying lower-division general education requirements and grant the student junior standing:

Chicago State University  
 Eastern Illinois University  
 Governors State University  
 Illinois State University  
 Northeastern Illinois State University  
 Northern Illinois University  
 Saint Xavier University  
 Southern Illinois University at Carbondale  
 Southern Illinois University at Edwardsville  
 University of Illinois at Springfield  
 Western Illinois University

See transfer guides for these schools in the Academic Advising Center for special conditions that may apply. The Associate in Fine Arts (A.F.A.) degree and the Associate in General Studies degree (A.G.S) do not qualify for compact agreements.

## Notes for all Students Pursuing an A.A., A.S., or A.F.A.

**Foreign Language**— Only a few institutions require competence in a foreign or second language as part of their campus wide general education requirements. Instead, some colleges require competence in a single foreign language (through the third or fourth college semester, or three or four years in high school) for a Bachelor of Arts (but not a Bachelor of Science) degree. In other schools, competence in a single foreign language is a requirement imposed by an individual department (such as art history or international business) or by a college within the university (usually, a College of Arts and Sciences). Students planning to earn a Bachelor of Arts degree or a degree from a College of Arts and Sciences should be alerted to the probable need to complete a foreign language—and should complete their foreign language requirement before transfer.

**Diversity Courses** — Some baccalaureate institutions require a diversity course in their campus-wide or major specific general education requirements. Diversity courses approved through the Illinois Articulation Initiative (IAI) are identified in the requirements lists as courses examining human diversity from a non-U.S. /non-European perspective or courses examining human diversity within the United States. Students are encouraged to complete any diversity courses required by their intended transfer institution as part of their general education core at Moraine Valley.

**Additional Graduation Requirements**— refer to Graduation section (p. 30).

## A.A. Degree

### Associate in Arts Degree—62 Credit Hours

#### Curriculum Code 1280

The general education core curriculum requirements listed below satisfy the statewide Illinois Articulation Initiative (IAI) and will transfer to participating schools as meeting their lower-division, campuswide general education requirements. Some schools may require admitted transfer students to complete an institution-wide and/or mission-related graduation requirement beyond the scope of the general education core.

The A.A. degree requirements are recommended for students pursuing a degree such as Art, Business, Criminal Justice, Early Childhood Education, Elementary Education, English, History, Mass Communications, Political Science, Psychology, Sociology, Special Education or Theater.

**Enrollment in some courses requires completion of a prerequisite. See course description for complete prerequisite information.**

## Summary of Credit Hours Required

A. General Education Core Curriculum (IAI): 38 credit hours

1. Communication (9)
2. Mathematics (3)
3. Life and Physical Sciences (8)
4. Humanities and Fine Arts (9)
5. Social/Behavioral Sciences (9)

B. Additional Degree Requirements: 3 credit hours

C. Baccalaureate Major/Minor and Elective Courses: 21 credit hours

**Total A.A. Degree: 62 credit hours**

**A. General Education Core Curriculum—38 credit hours**

The general education core curriculum constitutes that part of an undergraduate education that develops breadth of knowledge and the expressive skills essential to more complex and in-depth learning throughout life. To develop breadth of knowledge, general education courses acquaint students with the methods of inquiry of the various academic disciplines and the different ways these disciplines view the world. The academic disciplines comprising the general education curriculum are the physical and life sciences, the humanities and fine arts, the social and behavioral sciences, and interdisciplinary combinations of these. To develop expressive skills, the general education curriculum requires courses that enhance written and oral communication and quantitative reasoning skills.

The foundation skills of communication (reading, writing, speaking, and listening), critical thinking and analysis/synthesis, quantification, and the use of resources (including technology and the library) are to be embedded in every general education course (adapted from Illinois Articulation Initiative, 2000).

**1. Communications—9 credit hours**

COM-101	Composition I	3
COM-102	Composition II	3
COM-103	Speech Fundamentals	3

(Note: COM-101 and COM-102 require completion of a prerequisite.)

(Note: COM-103 satisfies the requirements of Public Act 87-581 addressing course work in human relations.)

**2. Mathematics—3 credit hours (minimum)**

MTH-120	General Education Mathematics	3
MTH-122	Math for Teachers II	3
MTH-139	Probability and Statistics	4
MTH-143	Finite Mathematics	4
MTH-145	Calculus for Business & Social Science	4
MTH-150	Calculus I/Analytic Geometry	5
MTH-151	Calculus II/Analytic Geometry	5
MTH-152	Calculus III/Analytic Geometry	4
MTH-212	Statistics for Business	4

MTH-215	Discrete Mathematics	3
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(Note: All MTH courses above require completion of a prerequisite.)

**3. Physical and Life Sciences—8 credit hours**

Select four credit hours from Life Science and four hours from Physical Science. All courses are four credit hours unless noted otherwise.

**Life Science—select 4 credit hours from:**

BIO-104	Biology of Human Life	4
BIO-111	General Biology I	4
BIO-112	General Biology II	4
BIO-119	Introductory Microbiology	4
NAT-111	Environmental Science I	4
NAT-112	Environmental Science II	4

**Physical Science—select 4 credit hours from:**

CHM-111	Fundamentals of Chemistry	4
CHM-131	Chemistry (University Oriented) I	4
EAS-120	Introduction to Earth Science	4
EAS-125	Introduction to Weather and Climate	4
EAS-130	Severe and Hazardous Weather	4
GEL-150	Physical Geology	4
PHS-101	Physical Science	4
PHS-103	Descriptive Astronomy	4

PHY-106	Fundamentals of Physics	3
AND		

PHY-107	Fundamentals of Physics Lab	1
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PHY-110	Mechanical Universe I	3
AND		

PHY-111	Mechanical Universe I Lab	1
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PHY-150	Mechanics, Heat & Sound	4
PHY-203	Mechanics	4

(Note: CHM-111, CHM-131, PHS-101, PHY-106, PHY-107, PHY-110, PHY-111, PHY-150, PHY-203 Require completion of a prerequisite.)

(Students transferring a life and/or physical science course INTO Moraine Valley may fulfill this requirement with a three-hour non-lab science course and a four-hour lab science course for a total of seven credit hours. Native Moraine Valley students will need a total of eight credit hours.)

(Note: Each of the Physical and Life Science courses shown above has a one-hour laboratory component included within the course structure and contact hours, with the exception of PHY-106/ PHY-107 and PHY-110/ PHY-111. Moraine Valley students must take both to fulfill credits for Physical Science.)

**4. Humanities and Fine Arts—9 credit hours**

Select three credit hours from Humanities, three hours from Fine Arts and an additional three hours from either Humanities or Fine Arts. All courses are three credit hours unless noted otherwise.

**Humanities—select 3 credit hours from:**

ARB-202	Arabic IV	4
FRE-202	French IV	4
HUM-101	Western Humanities I: Foundations	3
HUM-102	Western Humanities II: Continuities	3
HUM-115	World Mythology	3
HUM-120	Women in the Humanities	3
HUM-135	African & Middle Eastern Humanities	3
HUM-140	Asian and Oceanic Humanities	3
HUM-145	Native American Humanities	3
LIT-213	American Literature I	3
LIT-214	American Literature II	3
LIT-215	Bible as Literature I	3
LIT-216	Bible as Literature II	3
LIT-217	Introduction to Poetry	3
LIT-218	Introduction to Drama	3
LIT-219	Women in Literature	3
LIT-220	Introduction to Fiction	3
LIT-221	English Literature I	3
LIT-222	English Literature II	3
LIT-223	Western Literature I	3
LIT-224	Western Literature II	3
LIT-225	Shakespeare	3
LIT-226	Literature of the Non-Western World	3
LIT-227	Literature as Film	3
LIT-228	Latin American Literature	3
LIT-230	African American Literature	3
PHI-101	Introduction to Philosophy	3
PHI-111	Critical Thinking	3
PHI-120	World Religions	3
PHI-125	Ethics	3
PHI-200	Philosophy of Religion	3
SPA-202	Spanish IV	4
SPA-213	Introduction to Hispanic Literatures	3

(Note: ARB-202, FRE-202, LIT-213, LIT-214, LIT-215, LIT-216, LIT-217, LIT-218, LIT-219, LIT-220, LIT-221, LIT-222, LIT-223, LIT-224, LIT-225, LIT-226, LIT-227, LIT-228, LIT-230, SPA-202, and SPA-213 require completion of a prerequisite.)

(Note: HUM-135, HUM-140, HUM-145, LIT-266, LIT-228, and PHI-120 are courses examining human diversity from a non-U.S./non-European perspective.)

(Note: HUM-120, LIT-219, LIT-227, and LIT-230 are courses examining human diversity within the United States.)

**Fine Arts—select 3 credit hours from:**

ART-110	Art Appreciation	3
ART-205	Survey of Art I	3
ART-206	Survey of Art II	3
ART-208	Survey of Art III	3
ART-209	Survey of Non-Western Art	3
HUM-101	Western Humanities I: Foundations	3
HUM-102	Western Humanities II: Continuities	3
HUM-120	Women in the Humanities	3
HUM-135	African & Middle Eastern Humanities	3
HUM-140	Asian and Oceanic Humanities	3
HUM-145	Native American Humanities	3
LIT-227	Literature as Film	3

MUS-106	Introduction to American Music	3
MUS-107	Music Appreciation	3
THE-105	Theater Appreciation	3
THE-107	Film Appreciation	3
THE-110	History of the Theatre	3
THE-111	History of Film	3

(Note: LIT-227 requires completion of a prerequisite.)

(Note: ART-209, HUM-135, HUM-140, and HUM-145 are courses examining human diversity from a non-U.S./non-European perspective.)

(Note: HUM-120 examines human diversity within the United States.)

**Select 3 credit hours from either Humanities or Fine Arts courses listed above.**

**5. Social/Behavioral Sciences—9 credit hours**

Select three courses from at least two different disciplines (no more than two courses from PSY-Psychology, for example). All courses are three credit hours.

ANT-201	Introductory Physical Anthropology	3
ANT-202	Intro. to Cultural Anthropology	3
ANT-210	Introduction to Archaeology	3
ECO-101	Principles of Macro-Economics	3
ECO-102	Principles of Micro-Economics	3
GEO-101	Cultural Geography	3
GEO-102	World Regional Geography	3
GEO-201	Economic Geography	3
HIS-101	Western Civilization I	3
HIS-102	Western Civilization II	3
HIS-150	World History to 1500	3
HIS-151	World History since 1500	3
HIS-201	American History I	3
HIS-202	American History II	3
HIS-210	History of Asia	3
HIS-215	History of Africa	3
HIS-220	History of Latin America	3
PSC-103	Introduction to Political Science	3
PSC-110	American National Government	3
PSC-115	State and Local Government	3
PSC-210	International Relations	3
PSC-215	Comparative Government	3
PSC-225	Non-Western Comparative Politics	3
PSC-245	Politics of the Middle East	3
PSY-101	Introduction to Psychology	3
PSY-104	Life-Span Developmental Psychology	3
PSY-105	Child Psychology	3
PSY-106	Adolescent Psychology	3
PSY-202	Social Psychology	3
PSY-210	Adult Psychology	3
SOC-101	General Sociology	3
SOC-102	Marriage & Family	3
SOC-204	Soc of Contemp Social Problems	3
SOC-210	Minority Groups	3
SOC-215	Sociology of Sex and Gender	3
SSC-101	Social Science I	3

(Note: PSY-202, PSY-210, SOC-204, and SOC-215 requires completion of a prerequisite.)

(Note: ANT-202, GEO-101, GEO-102, GEO-201, HIS-210, HIS-215, HIS-220, PSC-210, PSC-225, and PSC-245 are courses examining human diversity from a non-U.S./non-European perspective.)

(Note: SOC-210 and SOC-215 are courses examining human diversity within the United States.)

#### **B. Additional Degree Requirements—3 credit hours**

##### **Associate in Arts Degree**

Select three credit hours from Humanities and Fine Arts or Social/Behavioral Sciences listed above or one of the following:

ARB-101	Arabic I	4
ARB-102	Arabic II	4
ARB-201	Arabic III	4
FRE-101	French I	4
FRE-102	French II	4
FRE-201	French III	4
SPA-101	Spanish I	4
SPA-102	Spanish II	4
SPA-201	Spanish III	4

(Note: ARB-101, ARB-102, ARB-201, FRE-101, FRE-102, FRE-201, SPA-101, SPA-102, and SPA-201 will not satisfy ICI GECC courses but will count as electives in the completed A.A. degree.)

#### **C. Baccalaureate Major/Minor Field and Elective Courses—21 credit hours**

Includes lower-division coursework in a student's major and minor fields, additional hours from the above areas and other college credit courses. Students should refer to baccalaureate major summaries and transfer guides available in the Academic Advising Center. Periodic consultation with an academic advisor is strongly recommended. Also see "Foreign Language" section.

**Total Degree Hours - 62 credit hours**

#### **A.S. Degree**

*(Does not meet the Illinois Articulation Initiative—General Education Core Curriculum)*

#### **Associate in Science Degree—62 Credit Hours**

##### **Curriculum Code 1330**

The general education core curriculum requirements listed below do not satisfy the entire statewide Illinois Articulation Initiative (IAI) general education core; therefore, students who complete this degree must meet the general education requirements for their bachelor's degree after transferring to a four-year institution. Some schools may also require admitted transfer students to complete an institution-wide and/or mission-related graduation requirement beyond the scope of the general education core. Students interested in a science or math discipline as a four-year major should consult the catalog of their transfer school and an academic advisor for appropriate requirements.

The A.S. degree requirements are recommended for students planning to pursue a degree such as Biology, Chemistry, Computer Science, Engineering, Information Technology, Mathematics, Physics or Technology.

**Enrollment in some courses requires completion of a prerequisite. See course description for complete prerequisite information.**

#### **Summary of Credit Hours Required**

##### **A. General Education Core Curriculum (IAI): 32 credit hours**

1. Communication (9)
2. Mathematics (3)
3. Life and Physical Sciences (8)
4. Humanities and Fine Arts (6)
5. Social/Behavioral Sciences (6)

##### **B. Additional Degree Requirements: 6 credit hours**

##### **C. Baccalaureate Major/Minor and Elective Courses: 24 credit hours**

##### **Total A.S. Degree: 62 credit hours**

##### **A. General Education Core Curriculum—32 credit hours**

The general education core curriculum constitutes that part of an undergraduate education that develops breadth of knowledge and the expressive skills essential to more complex and in-depth learning throughout life. To develop breadth of knowledge, general education courses acquaint students with the methods of inquiry of the various academic disciplines and the different ways these disciplines view the world. The academic disciplines comprising the general education curriculum are the physical and life sciences, the humanities and fine arts, the social and behavioral sciences, and interdisciplinary combinations of these. To develop expressive skills, the general education curriculum requires courses that enhance written and oral communication and quantitative reasoning skills.

The foundation skills of communication (reading, writing, speaking, and listening), critical thinking and analysis/synthesis, quantification, and the use of resources (including technology and the library) are to be embedded in every general education course (adapted from Illinois Articulation Initiative, 2000).

##### **1. Communications—9 credit hours**

COM-101	Composition I	3
COM-102	Composition II	3
COM-103	Speech Fundamentals	3

(Note: COM-101 and COM-102 require completion of a prerequisite.)

(Note: COM-103 satisfies the requirements of Public Act 87-581 addressing course work in human relations.)

##### **2. Mathematics—3 credit hours (minimum)**

MTH-120	General Education Mathematics	3
MTH-122	Math for Teachers II	3

MTH-139	Probability and Statistics	4
MTH-143	Finite Mathematics	4
MTH-145	Calculus for Business & Social Science	4
MTH-150	Calculus I/Analytic Geometry	5
MTH-151	Calculus II/Analytic Geometry	5
MTH-152	Calculus III/Analytic Geometry	4
MTH-212	Statistics for Business	4
MTH-215	Discrete Mathematics	3

(Note: All MTH courses above require completion of a prerequisite.)

**3. Physical and Life Sciences—8 credit hours**

Select four credit hours from Life Science and four hours from Physical Science. All courses are four credit hours unless noted otherwise.

**Life Science—select 4 credit hours from:**

BIO-104	Biology of Human Life	4
BIO-111	General Biology I	4
BIO-112	General Biology II	4
BIO-119	Introductory Microbiology	4
NAT-111	Environmental Science I	4
NAT-112	Environmental Science II	4

**Physical Science—select 4 credit hours from:**

CHM-111	Fundamentals of Chemistry	4
CHM-131	Chemistry (University Oriented) I	4
EAS-120	Introduction to Earth Science	4
EAS-125	Introduction to Weather and Climate	4
EAS-130	Severe and Hazardous Weather	4
GEL-150	Physical Geology	4
PHS-101	Physical Science	4
PHS-103	Descriptive Astronomy	4
PHY-106	Fundamentals of Physics	3
AND		
PHY-107	Fundamentals of Physics Lab	1
PHY-110	Mechanical Universe I	3
AND		
PHY-111	Mechanical Universe I Lab	1
PHY-150	Mechanics, Heat & Sound	4
PHY-203	Mechanics	4

(Note: CHM-111, CHM-131, PHS-101, PHY-106, PHY-107, PHY-110, PHY-111, PHY-150, PHY-203 Require completion of a prerequisite.)

(Students transferring a life and/or physical science course INTO Moraine Valley may fulfill this requirement with a three-hour non-lab science course and a four-hour lab science course for a total of seven credit hours. Native Moraine Valley students will need a total of eight credit hours.)

(Note: Each of the Physical and Life Science courses shown above has a one-hour laboratory component included within the course structure and contact hours, with the exception of PHY-106/ PHY-107 and PHY-110/ PHY-111. Moraine Valley students must take both to fulfill credits for Physical Science.)

**4. Humanities and Fine Arts—6 credit hours**

Select three credit hours from Humanities and three hours from Fine Arts. All courses are three credit hours unless noted otherwise.

**Humanities—select 3 credit hours from:**

ARB-202	Arabic IV	4
FRE-202	French IV	4
HUM-101	Western Humanities I: Foundations	3
HUM-102	Western Humanities II: Continuities	3
HUM-115	World Mythology	3
HUM-120	Women in the Humanities	3
HUM-135	African & Middle Eastern Humanities	3
HUM-140	Asian and Oceanic Humanities	3
HUM-145	Native American Humanities	3
LIT-213	American Literature I	3
LIT-214	American Literature II	3
LIT-215	Bible as Literature I	3
LIT-216	Bible as Literature II	3
LIT-217	Introduction to Poetry	3
LIT-218	Introduction to Drama	3
LIT-219	Women in Literature	3
LIT-220	Introduction to Fiction	3
LIT-221	English Literature I	3
LIT-222	English Literature II	3
LIT-223	Western Literature I	3
LIT-224	Western Literature II	3
LIT-225	Shakespeare	3
LIT-226	Literature of the Non-Western World	3
LIT-227	Literature as Film	3
LIT-228	Latin American Literature	3
LIT-230	African American Literature	3
PHI-101	Introduction to Philosophy	3
PHI-111	Critical Thinking	3
PHI-120	World Religions	3
PHI-125	Ethics	3
PHI-200	Philosophy of Religion	3
SPA-202	Spanish IV	4
SPA-213	Introduction to Hispanic Literatures	3

(Note: ARB-202, FRE-202, LIT-213, LIT-214, LIT-215, LIT-216, LIT-217, LIT-218, LIT-219, LIT-220, LIT-221, LIT-222, LIT-223, LIT-224, LIT-225, LIT-226, LIT-227, LIT-228, LIT-230, SPA-202, and SPA-213 require completion of a prerequisite.)

(Note: HUM-135, HUM-140, HUM-145, LIT-266, LIT-228, and PHI-120 are courses examining human diversity from a non-U.S./non-European perspective.)

(Note: HUM-120, LIT-219, LIT-227, and LIT-230 are courses examining human diversity within the United States.)

**Fine Arts—select 3 credit hours from:**

ART-110	Art Appreciation	3
ART-205	Survey of Art I	3
ART-206	Survey of Art II	3
ART-208	Survey of Art III	3
ART-209	Survey of Non-Western Art	3
HUM-101	Western Humanities I: Foundations	3
HUM-102	Western Humanities II: Continuities	3

HUM-120	Women in the Humanities	3
HUM-135	African & Middle Eastern Humanities	3
HUM-140	Asian and Oceanic Humanities	3
HUM-145	Native American Humanities	3
LIT-227	Literature as Film	3
MUS-106	Introduction to American Music	3
MUS-107	Music Appreciation	3
THE-105	Theater Appreciation	3
THE-107	Film Appreciation	3
THE-110	History of the Theatre	3
THE-111	History of Film	3

(Note: LIT-227 requires completion of a prerequisite.)

(Note: ART-209, HUM-135, HUM-140, and HUM-145 are courses examining human diversity from a non-U.S./non-European perspective.)

(Note: HUM-120 examines human diversity within the United States.)

#### 5. Social/Behavioral Sciences—6 credit hours

Select courses from at least two different disciplines. All courses are three credit hours.

ANT-201	Introductory Physical Anthropology	3
ANT-202	Intro. to Cultural Anthropology	3
ANT-210	Introduction to Archaeology	3
ECO-101	Principles of Macro-Economics	3
ECO-102	Principles of Micro-Economics	3
GEO-101	Cultural Geography	3
GEO-102	World Regional Geography	3
GEO-201	Economic Geography	3
HIS-101	Western Civilization I	3
HIS-102	Western Civilization II	3
HIS-150	World History to 1500	3
HIS-151	World History since 1500	3
HIS-201	American History I	3
HIS-202	American History II	3
HIS-210	History of Asia	3
HIS-215	History of Africa	3
HIS-220	History of Latin America	3
PSC-103	Introduction to Political Science	3
PSC-110	American National Government	3
PSC-115	State and Local Government	3
PSC-210	International Relations	3
PSC-215	Comparative Government	3
PSC-225	Non-Western Comparative Politics	3
PSC-245	Politics of the Middle East	3
PSY-101	Introduction to Psychology	3
PSY-104	Life-Span Developmental Psychology	3
PSY-105	Child Psychology	3
PSY-106	Adolescent Psychology	3
PSY-202	Social Psychology	3
PSY-210	Adult Psychology	3
SOC-101	General Sociology	3
SOC-102	Marriage & Family	3
SOC-204	Soc of Contemp Social Problems	3
SOC-210	Minority Groups	3
SOC-215	Sociology of Sex and Gender	3
SSC-101	Social Science I	3

(Note: PSY-202, PSY-210, SOC-204, and SOC-215 requires completion of a prerequisite.)

(Note: ANT-202, GEO-101, GEO-102, GEO-201, HIS-210, HIS-215, HIS-220, PSC-210, PSC-225, and PSC-245 are courses examining human diversity from a non-U.S./non-European perspective.)

(Note: SOC-210 and SOC-215 are courses examining human diversity within the United States.)

#### B. Additional Degree Requirements—6 credit hours (minimum)

##### Associate in Science Degree

Select three credit hours (minimum) from college-level MTH courses excluding MTH-102, MTH-109 and MTH-133.

Select three credit hours (minimum) from BIO, CHM, EAS, GEL, NAT, PHS, or PHY prefixes.

#### C. Baccalaureate Major/Minor Field and Elective Courses—24 credit hours

Includes lower-division coursework in a student's major and minor fields, additional hours from the above areas and other college credit courses. Students should refer to baccalaureate major summaries and transfer guides available in the Academic Advising Center. Periodic consultation with an academic advisor is strongly recommended. Also see "Foreign Language" section.

#### Total Degree Hours - 62 credit hours

### Business Transfer, A.S.

#### Associate in Science Degree—62 Credit Hours

*Curriculum Code 1300*

**New students are currently not being admitted.**

### Art, A.F.A.

*(Does not meet the Illinois Articulation Initiative—General Education Core Curriculum)*

#### Associate in Fine Arts Degree—65 Credit Hours

*Curriculum Code 1425*

This program requires a minimum of 65 credit hours and offers the foundation courses required in the first two years of an art degree to prepare students to transfer as a junior to a bachelor's degree in art program. Students interested in transferring to a baccalaureate program should be aware that transfer admission will be competitive, and most schools require a portfolio review for admission to a bachelor's degree program, advanced course placement and scholarship consideration. The program does not satisfy the entire IAI general education core; therefore, students who complete this degree must meet the general education requirements for the bachelor's degree of the university to which they plan to transfer. However, students wishing to meet the IAI general education core should consult with an academic advisor. These course

recommendations are intended for students who are undecided about a transfer school. Students who have selected a transfer school should consult the catalog of that school and an academic advisor for requirements appropriate to the first two years of study. College catalogs and transfer guides for many four-year colleges are available in the Academic Advising Center. Art education majors are recommended to earn an A.A. degree rather than an A.F.A. degree.

**Enrollment in some courses requires completion of a prerequisite. See course description for complete prerequisite information.**

**A. General Education Core Curriculum—32 credit hours**

**1. Communications—9 credit hours**

COM-101	Composition I	3
COM-102	Composition II	3
COM-103	Speech Fundamentals	3

(Note: COM-101 and COM-102 require completion of a prerequisite.)

(Note: COM-103 satisfies the requirements of Public Act 87-581 addressing course work in human relations.)

**2. Mathematics—3 credit hours (minimum)**

MTH-120	General Education Mathematics	3
MTH-122	Math for Teachers II	3
MTH-139	Probability and Statistics	4
MTH-143	Finite Mathematics	4
MTH-145	Calculus for Business & Social Science	4
MTH-150	Calculus I/Analytic Geometry	5
MTH-151	Calculus II/Analytic Geometry	5
MTH-152	Calculus III/Analytic Geometry	4
MTH-212	Statistics for Business	4
MTH-215	Discrete Mathematics	3

(Note: MTH-120, MTH-122, MTH-139, MTH-143, MTH-145, MTH-150, MTH-151, MTH-152, MTH-212, and MTH-215 requires completion of a prerequisite.)

**3. Physical and Life Sciences—8 credit hours**

Select 4 credit hours from Life Science and 4 hours from Physical Science. All courses are 4 credit hours unless noted otherwise.

**Life Science—select 4 credit hours from:**

BIO-104	Biology of Human Life	4
BIO-111	General Biology I	4
BIO-112	General Biology II	4
BIO-115	Anatomy and Physiology	5
BIO-119	Introductory Microbiology	4
NAT-111	Environmental Science I	4
NAT-112	Environmental Science II	4

**Physical Science—select 4 credit hours from:**

CHM-111	Fundamentals of Chemistry	4
CHM-131	Chemistry (University Oriented) I	4
EAS-120	Introduction to Earth Science	4
EAS-125	Introduction to Weather and Climate	4
EAS-130	Severe and Hazardous Weather	4
GEL-150	Physical Geology	4
PHS-101	Physical Science	4

PHS-103	Descriptive Astronomy	4
PHY-106 AND PHY-107	Fundamentals of Physics	3
PHY-110 AND PHY-111	Fundamentals of Physics Lab	1
PHY-110 AND PHY-111	Mechanical Universe I	3
PHY-110 AND PHY-111	Mechanical Universe I Lab	1
PHY-150	Mechanics, Heat & Sound	4
PHY-203	Mechanics	4

(Note: CHM-111, CHM-131, PHS-101, PHY-106, PHY-107, PHY-110, PHY-111, PHY-150, and PHY-203 require completion of a prerequisite.)

(Students transferring a life and/or physical science course INTO Moraine Valley may fulfill this requirement with a three-hour non-lab science course and a four-hour lab science course for a total of seven credit hours. Native Moraine Valley students will need a total of eight credit hours.)

(Note: Each of the Physical and Life Science courses shown above has a one-hour laboratory component included within the course structure and contact hours, with the exception of PHY-106/PHY-107 and PHY-110/PHY-111.)

**4. Humanities—6 credit hours**

**Select 6 credit hours from:**

ARB-202	Arabic IV	4
FRE-202	French IV	4
HUM-101	Western Humanities I: Foundations	3
HUM-102	Western Humanities II: Continuities	3
HUM-115	World Mythology	3
HUM-120	Women in the Humanities	3
HUM-135	African & Middle Eastern Humanities	3
HUM-140	Asian and Oceanic Humanities	3
HUM-145	Native American Humanities	3
LIT-213	American Literature I	3
LIT-214	American Literature II	3
LIT-215	Bible as Literature I	3
LIT-216	Bible as Literature II	3
LIT-217	Introduction to Poetry	3
LIT-218	Introduction to Drama	3
LIT-219	Women in Literature	3
LIT-220	Introduction to Fiction	3
LIT-221	English Literature I	3
LIT-222	English Literature II	3
LIT-223	Western Literature I	3
LIT-224	Western Literature II	3
LIT-225	Shakespeare	3
LIT-226	Literature of the Non-Western World	3
LIT-228	Latin American Literature	3
LIT-227	Literature as Film	3
LIT-230	African American Literature	3
PHI-101	Introduction to Philosophy	3
PHI-111	Critical Thinking	3
PHI-120	World Religions	3

PHI-125	Ethics	3
PHI-200	Philosophy of Religion	3
PHI-210	Philosophy: Ancient to Enlightenment	3
PHI-211	Philosophy: Enlightenment to Present	3
SPA-202	Spanish IV	4
SPA-213	Introduction to Hispanic Literatures	3

(Note: ARB-202, FRE-202, LIT-213, LIT-214, LIT-215, LIT-216, LIT-217, LIT-218, LIT-219, LIT-220, LIT-221, LIT-222, LIT-223, LIT-224, LIT-225, LIT-226, LIT-228, LIT-227, LIT-230, SPA-202, and SPA-213 require completion of a prerequisite.)

(Note: HUM-135, HUM-140, HUM-145, LIT-226, LIT-228, and PHI-120 are courses examining human diversity from a non-U.S./non-European perspective.)

(Note: HUM-120, LIT-219, and LIT-230 are courses examining human diversity within the United States.)

#### 5. Social/Behavioral Sciences—6 credit hours

Select 6 credit hours from two of the following disciplines (e.g., no more than one course from PSY-Psychology, for example).

ANT-201	Introductory Physical Anthropology	3
ANT-202	Intro. to Cultural Anthropology	3
ANT-210	Introduction to Archaeology	3
ECO-101	Principles of Macro-Economics	3
ECO-102	Principles of Micro-Economics	3
GEO-101	Cultural Geography	3
GEO-102	World Regional Geography	3
GEO-201	Economic Geography	3
HIS-101	Western Civilization I	3
HIS-102	Western Civilization II	3
HIS-150	World History to 1500	3
HIS-151	World History since 1500	3
HIS-201	American History I	3
HIS-202	American History II	3
HIS-210	History of Asia	3
HIS-215	History of Africa	3
HIS-220	History of Latin America	3
PSC-103	Introduction to Political Science	3
PSC-110	American National Government	3
PSC-115	State and Local Government	3
PSC-210	International Relations	3
PSC-215	Comparative Government	3
PSC-225	Non-Western Comparative Politics	3
PSC-245	Politics of the Middle East	3
PSY-101	Introduction to Psychology	3
PSY-104	Life-Span Developmental Psychology	3
PSY-105	Child Psychology	3
PSY-106	Adolescent Psychology	3
PSY-202	Social Psychology	3
PSY-210	Adult Psychology	3
SOC-101	General Sociology	3
SOC-102	Marriage & Family	3
SOC-204	Soc of Contemp Social Problems	3
SOC-210	Minority Groups	3
SOC-215	Sociology of Sex and Gender	3
SSC-101	Social Science I	3

(Note: PSY-202, PSY-210, and SOC-204 require completion of a prerequisite.)

(Note: ANT-202, GEO-101, GEO-102, GEO-201, HIS-210, HIS-215, HIS-220, PSC-210, PSC-225, and PSC-245 are courses examining human diversity from a non-U.S./non-European perspective.)

(Note: SOC-215 and SOC-101 are courses examining human diversity within the United States.)

#### B. Art Requirements—24 credit hours

##### Required Courses

ART-101	Drawing I	3
ART-104	Drawing II	3
ART-105	Life Drawing	3
ART-116	Two-Dimensional Design	3
ART-118	Three-Dimensional Design	3
ART-205	Survey of Art I	3
ART-206	Survey of Art II	3
ART-208	Survey of Art III	3

(Note: ART-104, ART-105, and ART-118 requires completion of a prerequisite.)

#### C. Elective Studio Courses—9 credit hours

##### Select 9 credit hours from the following:

ART-120	Beginning Painting	3
ART-125	Ceramics I	3
ART-146	Introduction to Computer Art	3
ART-150	Sculpture	3
ART-160	Darkroom Photography: Introduction	3
OR		
ART-165	Digital Photography: Introduction	3
ART-170	Printmaking	3

(Note: ART-120, ART-146, and ART-150 require completion of a prerequisite.)

#### Total Degree Hours - 65 credit hours

\* *Foreign Language Requirement: Some universities have a foreign language requirement. Generally, four years of a single foreign language in high school or four semesters of language in college will fulfill this requirement. It is recommended that students complete the entire foreign language sequence at one institution.*

*The Associate in Fine Arts degree does not satisfy the Illinois Articulation Initiative General Education Core Curriculum; therefore, students who complete this degree must meet the general education requirements for the bachelor's degree of the university to which they plan to transfer.*

*The program(s) of study listed above is a model for students who are undecided about a transfer institution and uncertain about specific course requirements.*

*Students who already know their intended transfer institution should refer to that school's catalog. In any case, students are strongly encouraged to work with a Moraine*

Valley academic advisor for specific course selection advice and transfer planning support.

## Music, A.F.A.

(Does not meet the Illinois Articulation Initiative—General Education Core Curriculum)

### Associate in Fine Arts—64 Credit Hours

#### Curriculum Code 1426

This program requires a minimum of 64 credit hours and offers the foundation courses required in the first two years of a music degree. Students interested in transferring to a baccalaureate program should be aware that transfer admission will be competitive and generally requires an audition along with placement exams for admission to the major, advanced course placement and scholarship consideration. The program does not satisfy the entire IAI general education core; therefore, students who complete this degree must meet the general education requirements for the bachelor's degree of the university to which they plan to transfer. However, students wishing to meet the IAI general education core should consult with an academic advisor. These course recommendations are intended for students who are undecided about a transfer school. Students who have selected a transfer school should consult the catalog of that school and an academic advisor for requirements appropriate to the first two years of study. College catalogs and transfer guide for many four-year colleges are available in the Academic Advising Center.

**Enrollment in some courses requires completion of a prerequisite. See course description for complete prerequisite information.**

#### A. General Education Core Curriculum—29 credit hours

##### 1. Communications—9 credit hours

COM-101	Composition I	3
COM-102	Composition II	3
COM-103	Speech Fundamentals	3

(Note: COM-101 and COM-102 require completion of a prerequisite.)

(Note: COM-103 satisfies the requirements of Public Act 87-581 addressing course work in human relations.)

##### 2. Mathematics—3 credit hours

Choose 3 credit hours from:

MTH-120	General Education Mathematics	3
MTH-122	Math for Teachers II	3
MTH-139	Probability and Statistics	4
MTH-143	Finite Mathematics	4
MTH-145	Calculus for Business & Social Science	4
MTH-150	Calculus I/Analytic Geometry	5
MTH-151	Calculus II/Analytic Geometry	5
MTH-152	Calculus III/Analytic Geometry	4
MTH-212	Statistics for Business	4
MTH-215	Discrete Mathematics	3

(Note: MTH-120, MTH-122, MTH-139, MTH-143, MTH-145, MTH-150, MTH-151, MTH-125, MTH-212 and MTH-215 require completion of a prerequisite.)

(Note: Math requirements vary at four-year institutions.)

#### 3. Physical and Life Sciences—8 credit hours

##### Life Science—select 4 credit hours from:

BIO-104	Biology of Human Life	4
BIO-111	General Biology I	4
BIO-112	General Biology II	4
BIO-115	Anatomy and Physiology	5
BIO-119	Introductory Microbiology	4
BIO-180	Human Anatomy & Physiology I	4
NAT-111	Environmental Science I	4
NAT-112	Environmental Science II	4

##### Physical Science—select 4 credit hours from:

CHM-111	Fundamentals of Chemistry	4
CHM-131	Chemistry (University Oriented) I	4
EAS-120	Introduction to Earth Science	4
EAS-125	Introduction to Weather and Climate	4
EAS-130	Severe and Hazardous Weather	4
GEL-150	Physical Geology	4
PHS-101	Physical Science	4
PHS-103	Descriptive Astronomy	4

PHY-106	Fundamentals of Physics	3
AND		
PHY-107	Fundamentals of Physics Lab	1
PHY-110	Mechanical Universe I	3
AND		
PHY-111	Mechanical Universe I Lab	1
PHY-150	Mechanics, Heat & Sound	4
PHY-203	Mechanics	4

(Note: CHM-111, CHM-131, PHS-101, PHY-106, PHY-107, PHY-110, PHY-111, PHY-150, and PHY-203 require completion of a prerequisite.)

#### 4. Humanities and Fine Arts—6 credit hours

Select 6 credit hours from the following:

ARB-202	Arabic IV	4
ART-110	Art Appreciation	3
ART-205	Survey of Art I	3
ART-206	Survey of Art II	3
ART-208	Survey of Art III	3
ART-209	Survey of Non-Western Art	3
FRE-202	French IV	4
HUM-101	Western Humanities I: Foundations	3
HUM-102	Western Humanities II: Continuities	3
HUM-115	World Mythology	3
HUM-120	Women in the Humanities	3
HUM-135	African & Middle Eastern Humanities	3
HUM-140	Asian and Oceanic Humanities	3
HUM-145	Native American Humanities	3
LIT-213	American Literature I	3
LIT-214	American Literature II	3
LIT-215	Bible as Literature I	3
LIT-216	Bible as Literature II	3

LIT-217	Introduction to Poetry	3	HIS-202	American History II	3
LIT-218	Introduction to Drama	3	HIS-210	History of Asia	3
LIT-219	Women in Literature	3	HIS-215	History of Africa	3
LIT-220	Introduction to Fiction	3	HIS-220	History of Latin America	3
LIT-221	English Literature I	3	PSC-103	Introduction to Political Science	3
LIT-222	English Literature II	3	PSC-110	American National Government	3
LIT-223	Western Literature I	3	PSC-115	State and Local Government	3
LIT-224	Western Literature II	3	PSC-210	International Relations	3
LIT-225	Shakespeare	3	PSC-215	Comparative Government	3
LIT-226	Literature of the Non-Western World	3	PSC-225	Non-Western Comparative Politics	3
LIT-227	Literature as Film	3	PSC-245	Politics of the Middle East	3
LIT-228	Latin American Literature	3	PSY-101	Introduction to Psychology	3
LIT-230	African American Literature	3	PSY-104	Life-Span Developmental Psychology	3
PHI-101	Introduction to Philosophy	3	PSY-105	Child Psychology	3
PHI-111	Critical Thinking	3	PSY-106	Adolescent Psychology	3
PHI-120	World Religions	3	PSY-202	Social Psychology	3
PHI-125	Ethics	3	PSY-210	Adult Psychology	3
PHI-200	Philosophy of Religion	3	SOC-101	General Sociology	3
PHI-210	Philosophy: Ancient to Enlightenment	3	SOC-102	Marriage & Family	3
PHI-211	Philosophy: Enlightenment to Present	3	SOC-204	Soc of Contemp Social Problems	3
SPA-202	Spanish IV	4	SOC-210	Minority Groups	3
SPA-213	Introduction to Hispanic Literatures	3	SOC-215	Sociology of Sex and Gender	3
THE-105	Theater Appreciation	3	SSC-101	Social Science I	3
THE-107	Film Appreciation	3			
THE-110	History of the Theatre	3			
THE-111	History of Film	3			

(Note: Some universities have a foreign language requirement. Generally, four years of a single foreign language in high school or four semesters of language in college will fulfill this requirement. It is recommended that students complete the entire foreign language sequence at one institution.)

(Note: ARB-202, FRE-202, LIT-213, LIT-214, LIT-215, LIT-216, LIT-217, LIT-218, LIT-219, LIT-220, LIT-221, LIT-222, LIT-223, LIT-224, LIT-225, LIT-226, LIT-228, LIT-227, LIT-230, SPA-202, and SPA-213 require completion of a prerequisite.)

(Note: HUM-135, HUM-140, HUM-145, LIT-226, LIT-228, and PHI-120 are courses examining human diversity from a non-U.S./non-European perspective.)

(Note: HUM-120, LIT-219, and LIT-230 are courses examining human diversity within the United States.)

##### 5. Social/Behavioral Sciences—3 credit hours

Select 3 credit hours from the following:

ANT-201	Introductory Physical Anthropology	3
ANT-202	Intro. to Cultural Anthropology	3
ANT-210	Introduction to Archaeology	3
ECO-101	Principles of Macro-Economics	3
ECO-102	Principles of Micro-Economics	3
GEO-101	Cultural Geography	3
GEO-102	World Regional Geography	3
GEO-201	Economic Geography	3
HIS-101	Western Civilization I	3
HIS-102	Western Civilization II	3
HIS-150	World History to 1500	3
HIS-151	World History since 1500	3
HIS-201	American History I	3

HIS-202	American History II	3
HIS-210	History of Asia	3
HIS-215	History of Africa	3
HIS-220	History of Latin America	3
PSC-103	Introduction to Political Science	3
PSC-110	American National Government	3
PSC-115	State and Local Government	3
PSC-210	International Relations	3
PSC-215	Comparative Government	3
PSC-225	Non-Western Comparative Politics	3
PSC-245	Politics of the Middle East	3
PSY-101	Introduction to Psychology	3
PSY-104	Life-Span Developmental Psychology	3
PSY-105	Child Psychology	3
PSY-106	Adolescent Psychology	3
PSY-202	Social Psychology	3
PSY-210	Adult Psychology	3
SOC-101	General Sociology	3
SOC-102	Marriage & Family	3
SOC-204	Soc of Contemp Social Problems	3
SOC-210	Minority Groups	3
SOC-215	Sociology of Sex and Gender	3
SSC-101	Social Science I	3

(Note: ANT-202, GEO-101, GEO-102, GEO-201, HIS-210, HIS-215, HIS-220, PSC-210, PSC-225, and PSC-245 are courses examining human diversity from a non-U.S./non-European perspective.)

(Note: SOC-215 and SOC-101 are courses examining human diversity within the United States.)

##### Music Requirements—35 credit hours

###### Music Core—23 credit hours

MUS-104	Music Theory I	3
MUS-105	Music Theory II	3
MUS-204	Music Theory III	3
MUS-205	Music Theory IV	3
MUS-118	Keyboard Skills I	1
MUS-120	Keyboard Skills II	1
MUS-218	Keyboard Skills III	1
MUS-220	Keyboard Skills IV	1
MUS-189	Aural Skills I	1
MUS-190	Aural Skills II	1
MUS-289	Aural Skills III	1
MUS-290	Aural Skills IV	1
MUS-206	Music History and Literature I	3

(Note: All music classes require pre- and/or co-requisites.)

###### Ensembles—4 credit hours

A student should take one ensemble course each semester for a total of 4 credit hours and may choose from the following courses:

MUS-109	Percussion Ensemble I	1
MUS-110	Percussion Ensemble II	1
MUS-209	Percussion Ensemble III	1
MUS-210	Percussion Ensemble IV	1
MUS-141	Chamber Singers I	1
MUS-142	Chamber Singers II	1
MUS-241	Chamber Singers III	1
MUS-242	Chamber Singers IV	1

MUS-145	Chorale I	1
MUS-146	Chorale II	1
MUS-245	Chorale III	1
MUS-246	Chorale IV	1
MUS-149	Flute Choir I	1
MUS-159	Flute Choir II	1
MUS-249	Flute Choir III	1
MUS-259	Flute Choir IV	1
MUS-151	Jazz Ensemble I	1
MUS-152	Jazz Ensemble II	1
MUS-251	Jazz Ensemble III	1
MUS-252	Jazz Ensemble IV	1
MUS-161	Instrumental Chamber Ensemble I	1
MUS-162	Instrumental Chamber Ensemble II	1
MUS-261	Instrumental Chamber Ensemble III	1
MUS-262	Instrumental Chamber Ensemble IV	1
MUS-171	Orchestra I	1
MUS-172	Orchestra II	1
MUS-173	Orchestra III	1
MUS-174	Orchestra IV	1
MUS-175	Concert Band I	1
MUS-176	Concert Band II	1
MUS-275	Concert Band III	1
MUS-276	Concert Band IV	1

**Applied Lessons—8 credit hours**

A student should take one applied lesson course each semester for a total of 8 credit hours and may choose from the following courses:

MUS-125	Applied Voice Major I	2
MUS-126	Applied Voice Major II	2
MUS-225	Applied Voice Major III	2
MUS-226	Applied Voice Major IV	2
MUS-135	Applied Piano Major I	2
MUS-136	Applied Piano Major II	2
MUS-235	Applied Piano Major III	2
MUS-236	Applied Piano Major IV	2
MUS-139	Applied Strings Major I	2
MUS-140	Applied Strings Major II	2
MUS-239	Applied Strings Major III	2
MUS-240	Applied Strings Major IV	2
MUS-179	Applied Percussion Major I	2
MUS-180	Applied Percussion Major II	2
MUS-279	Applied Percussion Major III	2
MUS-280	Applied Percussion Major IV	2
MUS-185	Applied Guitar Major I	2
MUS-186	Applied Guitar Major II	2
MUS-285	Applied Guitar Major III	2
MUS-286	Applied Guitar Major IV	2
MUS-193	Applied Brasswind Major I	2
MUS-194	Applied Brasswind Major II	2
MUS-293	Applied Brasswind Major III	2
MUS-294	Applied Brasswind Major IV	2
MUS-197	Applied Woodwind Major I	2
MUS-198	Applied Woodwind Major II	2
MUS-297	Applied Woodwind Major III	2
MUS-298	Applied Woodwind Major IV	2

**Total Degree Hours - 64 credit hours**

\* *Foreign Language Requirement: Some universities have a foreign language requirement. Generally, four years of a single foreign language in high school or four semesters of language in college will fulfill this requirement. It is recommended that students complete the entire foreign language sequence at one institution.*

*The Associate in Fine Arts degree does not satisfy the Illinois Articulation Initiative General Education Core Curriculum; therefore, students who complete this degree must meet the general education requirements for the bachelor's degree of the university to which they plan to transfer.*

*The program(s) of study listed above is a model for students who are undecided about a transfer institution and uncertain about specific course requirements.*

*Students who already know their intended transfer institution should refer to that school's catalog. In any case, students are strongly encouraged to work with a Moraine Valley academic advisor for specific course selection advice and transfer planning support.*

**General Studies, A.G.S.**

*(Does not meet the Illinois Articulation Initiative—General Education Core Curriculum)*

**Associate in General Studies—62 Credit Hours****Curriculum Code 1427**

This program is designed for students with non-traditional needs that cannot be achieved through other associate degree programs. Students may select from a variety of disciplines to explore specialized interests. The Associate in General Studies degree is not considered a transfer degree and does not meet traditional general education requirements.

**Note:** This degree is not intended to be an entering student's default program of study. Students must work with an Academic Advisor to determine if they fall into the special populations this degree is designed to target.

**Enrollment in some courses requires completion of a prerequisite. See course description for complete prerequisite information.**

**General Electives—Select 41 credit hours**

It is highly recommended students create a specialized program of study for this degree to meet their individual needs and interests with the guidance of an academic advisor.

**Required General Education Courses—21 credit hours****1. Communication—6 credit hours**

COM-101	Composition I	3
COM-103	Speech Fundamentals	3

*(Note: COM-101 requires completion of a prerequisite)*

*(Note: COM-103 satisfies the requirements of Public Act 87-581 addressing course work in human relations)*

**2. Mathematics—2 credit hours**

Select a minimum of 2 credit hours from the following:

BUS-120	Business Mathematics	3
MTH-102	Mathematics for Paraprofessionals	3
MTH-109	Math for Allied Health	2
MTH-120	General Education Mathematics	3

(Note: Math classes higher than MTH-120 will also satisfy this requirement)

**3. Physical and Life Sciences—4 credit hours**

Select science course with a lab component from the following: BIO, CHM, EAS, GEL, NAT, PHS (excluding PHS-105), PHY

**4. Social/Behavioral Sciences—3 credit hours**

Select 3 credit hours from the following: ANT, ECO, GEO, HIS, PSC, PSY, SOC, SSC

**5. Humanities and Fine Arts—3 credit hours**

Select 3 credit hours from the following: ARB, ART, ASL, FRE, HUM, LIT, MUS, PHI, SPA, THE

**6. One additional General Education course—3 credit hours**

Select one course from any area within of the general education sections listed above

**Suggested Schedule****First Semester (15 credit hours)**

COM-101	Composition I	3
___-___	Math	2
___-___	Electives	10

**Second Semester (16 credit hours)**

COM-103	Speech Fundamentals	3
___-___	Physical and Life Sciences Elective	4
___-___	Electives	9

**Third Semester (16 credit hours)**

PSY or SOC-___	PSY or SOC 100-level Course	3
___-___	Electives	13

**Fourth Semester (15 credit hours)**

___-___	Humanities and Fine Arts Elective	3
___-___	General Education Course	3
___-___	Electives	9

# Career Programs

To prepare students whose goal is immediate employment upon graduation, Moraine Valley offers career programs that lead to Associate in Applied Science (A.A.S.) degrees or to certificates. Many of the career programs transfer in whole or in part to some universities. However, these programs are not designed specifically for transfer. Students intending to transfer should consult an academic advisor. Career outlook information is available through the Occupational Outlook Handbook and other sources.

High school graduates may be eligible for proficiency credit in some career programs. Additional career programs are offered to Moraine Valley students at other area community colleges through cooperative agreements.

## Addictions Studies

***This program consists of one degree and one certificate.***

### Addictions Studies, A.A.S.

#### A.A.S. Degree—63 credit hours

##### Curriculum Code 1314

This program is designed to give students an opportunity to develop the skills and knowledge necessary to become a certified addictions counselor in Illinois through the Illinois Alcohol and Other Drug Abuse Professional Certification Association (IAODAPCA)/Illinois Certification Board (ICB). The Illinois Division of Alcohol and Substance Abuse (DASA), under the Department of Human Services, recognizes certification as a qualifying credential for Addiction Counseling staff working in licensed addictions treatment programs. Students who complete the Associate in Applied Science degree are eligible to take the credentialing exam for the Certified Alcohol and Other Drug Abuse Counselor (CADC). It is especially important and valuable to note that upon completion of this degree, the normal two-year work experience requirement for Certified Addictions Counselor candidates is waived. This means that a student who earns an Associate's Degree in Addiction Studies will only have to take and pass the certification exam in order to become a Certified Alcohol and Drug Counselor.

#### Required General Education Courses

##### 16 credit hours as follows:

COM-101	Composition I	3
COM-103	Speech Fundamentals	3
MTH-120	General Education Mathematics	3

**MTH-120: A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

#### Select 3 credit hours from Humanities and Fine Arts or Social/Behavioral Sciences:

ANT, ARB, ART, ECO, FRE, GEO, HIS, HUM, LIT, MUS, PHI, PSC, PSY, SOC, SSC, SPA, THE

#### Select 4 credit hours from Physical and Life Sciences:

BIO, CHM, EAS, GEL, NAT, PHS, PHY

#### Required Career Courses

##### 44 credit hours as follows:

ADC-100	Human Development and Behavior	3
ADC-101	Introduction to Addiction Counseling	3
ADC-106	Theory and Practice of Counseling	3
ADC-110	Common Behavior Disorders	3
ADC-112	Diversity in Addictions Counseling	3
ADC-202	Substance Use, Abuse and Dependency	3
ADC-204	Psychopharmacology	3
ADC-206	Group Counseling	3
ADC-207	Family Dynamics and Counseling	3
ADC-208	Case Management	3
ADC-211	Compliance and Ethics	3
ADC-212	Women: Addiction and Recovery	3
ADC-233	Field Practicum	3
ADC-237	Seminar	1
ADC-243	Advanced Field Practicum	3
ADC-247	Advanced Seminar	1

#### Career Electives

##### Select 3 credit hours from the following:

ADC-108	Treatment Delivery Models	3
ADC-219	Contemporary Issues: Alcohol/Drugs	2
ADC-230	Special Topics in Addiction Studies	1
CRJ-101	Introduction to Criminal Justice	3
CRJ-105	Criminology	3
IMS-115	Microsoft Office I	3
PSY-205	Abnormal Psychology	3
SPA-125	Career Spanish, Law Enforcement I	3
SPA-126	Career Spanish, Law Enforcement II	3

#### Suggested Schedule

##### Semester 1 (15 credit hours)

COM-101	Composition I	3
ADC-100	Human Development and Behavior	3
ADC-101	Introduction to Addiction Counseling	3
ADC-110	Common Behavior Disorders	3
ADC-202	Substance Use, Abuse and Dependency	3

##### Semester 2 (18 credit hours)

ADC-106	Theory and Practice of Counseling	3
ADC-112	Diversity in Addictions Counseling	3
ADC-204	Psychopharmacology	3
ADC-207	Family Dynamics and Counseling	3
ADC-208	Case Management	3

___ - ___	Humanities and Fine Arts Elective	3	ADC-100	Human Development and Behavior	3
<b>OR</b>					
___ - ___	Social Science Elective	3	ADC-101	Introduction to Addiction Counseling	3
<b>Semester 3 (16 credit hours)</b>					
ADC-206	Group Counseling	3	ADC-110	Common Behavior Disorders	3
ADC-211	Compliance and Ethics	3	ADC-202	Substance Use, Abuse and Dependency	3
ADC-233	Field Practicum	3	<b>Semester 2 (15 credit hours)</b>		
ADC-237	Seminar	1	ADC-106	Theory and Practice of Counseling	3
COM-103	Speech Fundamentals	3	ADC-112	Diversity in Addictions Counseling	3
MTH-120	General Education Mathematics	3	ADC-204	Psychopharmacology	3
(Note: Take MTH-120 or higher.)			ADC-206	Group Counseling	3
<b>Semester 4 (14 credit hours)</b>			ADC-207	Family Dynamics and Counseling	3
ADC-212	Women: Addiction and Recovery	3	<b>Semester 3 (13 credit hours)</b>		
ADC-243	Advanced Field Practicum	3	ADC-208	Case Management	3
ADC-247	Advanced Seminar	1	ADC-211	Compliance and Ethics	3
___ - ___	Career Elective	3	ADC-212	Women: Addiction and Recovery	3
___ - ___	Physical and Life Sciences Elective	4	ADC-233	Field Practicum	3
			ADC-237	Seminar	1
<b>Semester 4 (4 credit hours)</b>					
ADC-243	Advanced Field Practicum		<b>Semester 4 (4 credit hours)</b>		
ADC-247	Advanced Seminar	1	ADC-243	Advanced Field Practicum	3
			ADC-247	Advanced Seminar	1

## Addictions Studies, Certificate

### Certificate—44 credit hours

#### Curriculum Code 1321

The program's primary goal is to give students an opportunity to develop the skills and knowledge necessary to pursue and become certified addictions counselors in Illinois through the Illinois Alcohol and Other Drug Abuse Professional Certification Association and related certification entities.

Much faster than average employment growth for all occupations is expected for human services workers who are needed as society focuses on ways to develop mental well-being, such as controlling job- and family-related stress with the help of counselors. In addition, there will be a continuing need to provide specialized services to those with substance abuse problems.

#### Required Career Courses

##### 44 credit hours as follows:

ADC-100	Human Development and Behavior	3
ADC-101	Introduction to Addiction Counseling	3
ADC-106	Theory and Practice of Counseling	3
ADC-110	Common Behavior Disorders	3
ADC-112	Diversity in Addictions Counseling	3
ADC-202	Substance Use, Abuse and Dependency	3
ADC-204	Psychopharmacology	3
ADC-206	Group Counseling	3
ADC-207	Family Dynamics and Counseling	3
ADC-208	Case Management	3
ADC-211	Compliance and Ethics	3
ADC-212	Women: Addiction and Recovery	3
ADC-233	Field Practicum	3
ADC-237	Seminar	1
ADC-243	Advanced Field Practicum	3
ADC-247	Advanced Seminar	1

#### Suggested Schedule

##### Semester 1 (12 credit hours)

## Automotive Technology

**This program consists of one degree and six certificates.**

### Automotive Technology, A.A.S.

#### A.A.S. Degree—62 credit hours

#### Curriculum Code 1277

This program familiarizes the student with the technical aspects of operating and servicing various components and systems used in automotive applications. Classroom lecture is devoted to theory of operation, troubleshooting and repair. Lab work incorporates work on equipment in which safety, business ethics, testing procedures, and techniques are emphasized. Jobs are plentiful for automotive technicians with the strong electronics background needed to work on today's vehicles. The growing complexity of automotive technology, the introduction of hybrid vehicles, the increased use of electronics and emissions control systems and the demand for increased fuel efficiency, all require that vehicles be serviced by highly trained technicians. Rising consumer purchase power; expansion of the driving-age population; and automobiles needing maintenance for pollution control, safety devices and air conditioning contribute to the growth of this occupation.

#### Required General Education Courses

##### 15 credit hours as follows:

COM-101	Composition I	3
COM-103	Speech Fundamentals	3
MTH-133	Math for Industry	2
PHY-106	Fundamentals of Physics	3
PHY-107	Fundamentals of Physics Lab	1

Take MTH-133 or higher: **A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be

demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

**Select 3 credit hours from Humanities and Fine Arts or Social/Behavioral Sciences:**

ANT, ARB, ART, ECO, FRE, GEO, HIS, HUM, LIT, MUS, PHI, PSC, PSY, SOC, SPA, SSC, THE

#### Required Career Courses

##### 32 credit hours as follows:

AUT-112	Introductory Automotive Technology	4
AUT-114	Electrical/Electronic Systems I	4
AUT-121	Automotive Brake Systems	4
AUT-125	Performance and Driveability I	4
AUT-214	Electrical/Electronic Systems II	4
AUT-232	Performance & Driveability II	4
AUT-234	Steering and Suspension Systems	4
AUT-236	Auto Engine Reconditioning	4

#### Electives

##### Select 15 credit hours from the following:

AUT-120	Automotive Service Advisor	3
AUT-127	Intro to Alternative Fuels	3
AUT-233	Seminar	1
AUT-237	Internship	3
AUT-240	Manual Transmissions and Drivelines	4
AUT-242	Automatic Transmissions	4
AUT-244	OBDII and Emission Control Systems	4
AUT-246	Heating & Air Conditioning Systems	4

#### Suggested Schedule

##### Semester 1 (15 credit hours)

AUT-112	Introductory Automotive Technology	4
AUT-114	Electrical/Electronic Systems I	4
COM-101	Composition I	3
PHY-106	Fundamentals of Physics	3
PHY-107	Fundamentals of Physics Lab	1

##### Semester 2 (16 credit hours)

AUT-121	Automotive Brake Systems	4
AUT-125	Performance and Driveability I	4
AUT-214	Electrical/Electronic Systems II	4
AUT-234	Steering and Suspension Systems	4

##### Semester 3 (16 credit hours)

AUT-232	Performance & Driveability II	4
AUT-236	Auto Engine Reconditioning	4
MTH-133	Math for Industry	2
AUT-__	Electives from Automotive	6

(Note: Take MTH-133 or higher.)

##### Semester 4 (15 credit hours)

COM-103	Speech Fundamentals	3
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__-__	Humanities and Fine Arts Elective	3
OR		
__-__	Social Science Elective	3
AUT-__	Electives from Automotive	9

## Automotive Service Advisor, Certificate

### Certificate—12 credit hours

#### Curriculum Code 1477

This program prepares the student for a career as an Automotive Service Advisor. Automotive service advisors work in new and used automobile dealerships and large automobile repair facilities. They greet customers, listen to customer concerns or service requests, determine the type of service required, provide customers with repair estimates, help produce repair orders, notify customers when repairs have been completed, and follow up with customers to help ensure customer satisfaction.

#### Required Career Courses

##### 12-13 credit hours as follows:

AUT-112	Introductory Automotive Technology	4
AUT-120	Automotive Service Advisor	3
MTH-133	Math for Industry	2
OR		
MTH-120	General Education Mathematics	3

(Note: MTH-120 recommended for transfer students.)

##### Select one of the following:

BUS-100	Introduction to Business	3
OR		
BUS-131	Principles of Retailing	3
OR		
BUS-133	Salesmanship	3

#### Suggested Schedule

##### Semester 1 (12-13 credit hours)

AUT-112	Introductory Automotive Technology	4
AUT-120	Automotive Service Advisor	3
MTH-133	Math for Industry	2
OR		
MTH-120	General Education Mathematics	3
BUS-100	Introduction to Business	3
OR		
BUS-131	Principles of Retailing	3
OR		
BUS-133	Salesmanship	3

## Automotive Service Technician, Certificate

### Certificate—48 credit hours

#### Curriculum Code 1237

This program provides the student with the entry-level skills needed to become an automotive technician. The program develops the necessary manipulative skills along with the

theory of operation of various automotive systems. Along with developing necessary job skills, the student can use the certificate as a partial fulfillment of the requirements for the A.A.S. degree in automotive technology.

#### Required Career Courses

##### 48 credit hours as follows:

AUT-112	Introductory Automotive Technology	4
AUT-114	Electrical/Electronic Systems I	4
AUT-121	Automotive Brake Systems	4
AUT-125	Performance and Driveability I	4
AUT-214	Electrical/Electronic Systems II	4
AUT-232	Performance & Driveability II	4
AUT-234	Steering and Suspension Systems	4
AUT-236	Auto Engine Reconditioning	4
AUT-240	Manual Transmissions and Drivelines	4
AUT-242	Automatic Transmissions	4
AUT-244	OBDII and Emission Control Systems	4
AUT-246	Heating & Air Conditioning Systems	4

#### Suggested Schedule

##### Semester 1 (12 credit hours)

AUT-112	Introductory Automotive Technology	4
AUT-114	Electrical/Electronic Systems I	4
AUT-121	Automotive Brake Systems	4

##### Semester 2 (12 credit hours)

AUT-125	Performance and Driveability I	4
AUT-214	Electrical/Electronic Systems II	4
AUT-234	Steering and Suspension Systems	4

##### Semester 3 (12 credit hours)

AUT-232	Performance & Driveability II	4
AUT-236	Auto Engine Reconditioning	4
AUT-240	Manual Transmissions and Drivelines	4

##### Semester 4 (12 credit hours)

AUT-242	Automatic Transmissions	4
AUT-244	OBDII and Emission Control Systems	4
AUT-246	Heating & Air Conditioning Systems	4

## Automotive Climate Control Technician, Certificate

#### Certificate—12 credit hours

##### Curriculum Code 1462

This program prepares the student for an entry-level position in the automotive service industry.

#### Required Career Courses

##### 12 credit hours as follows:

AUT-112	Introductory Automotive Technology	4
AUT-114	Electrical/Electronic Systems I	4
AUT-246	Heating & Air Conditioning Systems	4

#### Suggested Schedule

##### Semester 1 (8 credit hours)

AUT-112	Introductory Automotive Technology	4
AUT-114	Electrical/Electronic Systems I	4

##### Semester 2 (4 credit hours)

AUT-246	Heating & Air Conditioning Systems	4
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## Brake and Chassis Technician, Certificate

#### Certificate—12 credit hours

##### Curriculum Code 1461

This program prepares the student for an entry-level position in the automotive service industry.

#### Required Career Courses

##### 12 credit hours as follows:

AUT-112	Introductory Automotive Technology	4
AUT-121	Automotive Brake Systems	4
AUT-234	Steering and Suspension Systems	4

#### Suggested Schedule

##### Semester 1 (8 credit hours)

AUT-112	Introductory Automotive Technology	4
AUT-121	Automotive Brake Systems	4

##### Semester 2 (4 credit hours)

AUT-234	Steering and Suspension Systems	4
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## Drivetrain Technician, Certificate

#### Certificate—16 credit hours

##### Curriculum Code 1464

This program prepares the student for an entry-level position in the automotive service industry.

#### Required Career Courses

##### 16 credit hours as follows:

AUT-112	Introductory Automotive Technology	4
AUT-114	Electrical/Electronic Systems I	4
AUT-240	Manual Transmissions and Drivelines	4
AUT-242	Automatic Transmissions	4

#### Suggested Schedule

##### Semester 1 (8 credit hours)

AUT-112	Introductory Automotive Technology	4
AUT-114	Electrical/Electronic Systems I	4

##### Semester 2 (8 credit hours)

AUT-240	Manual Transmissions and Drivelines	4
AUT-242	Automatic Transmissions	4

## Engine Driveability Technician, Certificate

#### Certificate—24 credit hours

##### Curriculum Code 1463

This program prepares the student for an entry-level position in the automotive service industry.

#### Required Career Courses

##### 24 credit hours as follows:

AUT-112	Introductory Automotive Technology	4
AUT-114	Electrical/Electronic Systems I	4
AUT-125	Performance and Driveability I	4
AUT-214	Electrical/Electronic Systems II	4
AUT-232	Performance & Driveability II	4
AUT-244	OBDII and Emission Control Systems	4

#### Suggested Schedule

<b>Semester 1 (12 credit hours)</b>	
AUT-112	Introductory Automotive Technology
AUT-114	Electrical/Electronic Systems I
AUT-125	Performance and Driveability I

4 4 4

<b>Semester 2 (12 credit hours)</b>	
AUT-214	Electrical/Electronic Systems II
AUT-232	Performance & Driveability II
AUT-244	OBDII and Emission Control Systems

4 4 4

COM-103	Speech Fundamentals	3
ECO-101	Principles of Macro-Economics	3

(Note: Take MTH-120 or higher. MTH-120 recommended for transfer students.)

**A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

**Select 3 credit hours from Humanities and Fine Arts or Physical and Life Sciences:**

ARB, ART, FRE, HUM, LIT, MUS, PHI, SPA, THE or BIO, CHM, EAS, GEL, NAT, PHS, PHY

#### Required Career Courses

##### 45 credit hours as follows:

BUS-100	Introduction to Business	3
BUS-105	Small Business Management	4
BUS-110	Legal Environment in Business	3
OR		
BUS-136	Business Law	3
BUS-130	Principles of Marketing	3
BUS-134	International Business	3
BUS-135	Personal Finance	2
BUS-142	Financial Accounting	4
BUS-143	Managerial Accounting	4
BUS-148	Introduction to Finance	3
BUS-170	Introduction to Human Resources	3
BUS-226	Business Ethics	3
BUS-231	Principles of Management	3
BUS-233	Internship	3
BUS-237	Seminar	1
IMS-115	Microsoft Office I	3

#### Suggested Schedule

##### Semester 1 (15 credit hours)

BUS-100	Introduction to Business	3
BUS-120	Business Mathematics	3
OR		
MTH-120	General Education Mathematics	3
BUS-110	Legal Environment in Business	3
OR		
BUS-136	Business Law	3
COM-101	Composition I	3
IMS-115	Microsoft Office I	3

(Note: MTH-120 recommended for transfer students.)

## Automotive Technology – Mopar College Automotive Program (CAP)

Moraine Valley Community College is one of 26 colleges in the nation, and the only one in Illinois, that offers this manufacturer-specific program. This program is supported by Chrysler Group LLC. Moraine Valley's Automotive Technology Department is provided with Chrysler's training curriculum; a variety of components; and a variety of Chrysler, Dodge, Jeep, and Ram vehicles. Students benefit from learning the newest technology available in the automotive repair industry. This program has a similar structure to the college's general automotive Associate in Applied Science (A.A.S.) degree program, but it focuses course information and hands-on activities exclusively using Chrysler, Dodge, Jeep, and Ram vehicles. Students in this program are required to work a minimum of 1,280 hours (paid internship) at a Chrysler, Dodge, Jeep, or Ram dealership. Students complete an extensive list of Chrysler training classes and graduate with an A.A.S. degree and a Chrysler-issued Mopar CAP Certificate. This two-year program commences every fall semester. Those interested in enrolling in the program need to submit an application which can be found at [morainevalley.edu/automotive](http://morainevalley.edu/automotive).

## Business Administration Associate

**This program consists of one degree and two certificates.**

### Business Administration Associate, A.A.S.

#### A.A.S. Degree—60 credit hours

##### Curriculum Code 1202

This program is designed to provide students with employment or advancement in business, industry, government, or service organizations. The curriculum is intended to serve the needs of students who want to enter management positions and to enable those already in management to upgrade their skills and potential for growth. This program includes an internship/seminar component.

##### Required General Education Courses

##### 15 credit hours as follows:

BUS-120	Business Mathematics	3
OR		
MTH-120	General Education Mathematics	3

COM-101	Composition I	3
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COM-103	Speech Fundamentals	3
ECO-101	Principles of Macro-Economics	3

(Note: Take MTH-120 or higher. MTH-120 recommended for transfer students.)

**A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

**Select 3 credit hours from Humanities and Fine Arts or Physical and Life Sciences:**

ARB, ART, FRE, HUM, LIT, MUS, PHI, SPA, THE or BIO, CHM, EAS, GEL, NAT, PHS, PHY

#### Required Career Courses

##### 45 credit hours as follows:

BUS-100	Introduction to Business	3
BUS-105	Small Business Management	4
BUS-110	Legal Environment in Business	3
OR		
BUS-136	Business Law	3
BUS-130	Principles of Marketing	3
BUS-134	International Business	3
BUS-135	Personal Finance	2
BUS-142	Financial Accounting	4
BUS-143	Managerial Accounting	4
BUS-148	Introduction to Finance	3
BUS-170	Introduction to Human Resources	3
BUS-226	Business Ethics	3
BUS-231	Principles of Management	3
BUS-233	Internship	3
BUS-237	Seminar	1
IMS-115	Microsoft Office I	3

#### Suggested Schedule

##### Semester 1 (15 credit hours)

BUS-100	Introduction to Business	3
BUS-120	Business Mathematics	3
OR		
MTH-120	General Education Mathematics	3
BUS-110	Legal Environment in Business	3
OR		
BUS-136	Business Law	3
COM-101	Composition I	3
IMS-115	Microsoft Office I	3

(Note: MTH-120 recommended for transfer students.)

**Semester 2 (16 credit hours)**

BUS-130	Principles of Marketing	3
BUS-134	International Business	3
BUS-142	Financial Accounting	4
COM-103	Speech Fundamentals	3
ECO-101	Principles of Macro-Economics	3

**Semester 3 (16 credit hours)**

BUS-143	Managerial Accounting	4
BUS-148	Introduction to Finance	3
BUS-226	Business Ethics	3
BUS-231	Principles of Management	3
—	Humanities and Fine Arts or Physical and Life Sciences Elective	3

**Semester 4 (13 credit hours)**

BUS-105	Small Business Management	4
BUS-135	Personal Finance	2
BUS-170	Introduction to Human Resources	3
BUS-233	Internship	3
BUS-237	Seminar	1

**Accounting Assistant/Clerk, Certificate****Certificate—29 credit hours***Curriculum Code 1328*

This program is designed to prepare students for entry-level accounting employment in the shortest possible time.

**Required Career Courses****29 credit hours as follows:**

BUS-100	Introduction to Business	3
BUS-142	Financial Accounting	4
BUS-143	Managerial Accounting	4
BUS-145	Computer Applications in Accounting	3
BUS-148	Introduction to Finance	3
BUS-226	Business Ethics	3
BUS-243	Federal Income Taxes	3
IMS-115	Microsoft Office I	3
OSA-122	Microsoft Excel	3

**Suggested Schedule****Semester 1 (10 credit hours)**

BUS-100	Introduction to Business	3
BUS-142	Financial Accounting	4
IMS-115	Microsoft Office I	3

**Semester 2 (10 credit hours)**

BUS-143	Managerial Accounting	4
BUS-243	Federal Income Taxes	3
OSA-122	Microsoft Excel	3

**Semester 3 (9 credit hours)**

BUS-145	Computer Applications in Accounting	3
BUS-148	Introduction to Finance	3
BUS-226	Business Ethics	3

**Business Skills, Certificate****Certificate—19 credit hours***Curriculum Code 1423*

This program provides students with opportunities to develop basic skills needed in virtually all work places

today. Students develop an understanding of core business concentrations.

**Required Career Courses****19 credit hours as follows:**

BUS-100	Introduction to Business	3
BUS-130	Principles of Marketing	3
BUS-142	Financial Accounting	4
BUS-148	Introduction to Finance	3
BUS-170	Introduction to Human Resources	3
BUS-231	Principles of Management	3

**Suggested Schedule****Semester 1 (10 credit hours)**

BUS-100	Introduction to Business	3
BUS-130	Principles of Marketing	3
BUS-142	Financial Accounting	4

**Semester 2 (9 credit hours)**

BUS-148	Introduction to Finance	3
BUS-170	Introduction to Human Resources	3
BUS-231	Principles of Management	3

**Cloud Networking and Virtualization**

***This program consists of one degree and two active certificates.***

**Cloud Networking and Virtualization, A.A.S.****A.A.S. Degree—60 credit hours***Curriculum Code 1435*

This program prepares students to support leading edge technologies used in the field of Information Technology (IT). Professionals involved in converged networks, cloud and virtualization, will learn to design and maintain the systems that transmit, store and analyze information coming through computers and related infrastructure. The program concentrates on the technologies, standards and protocols used to provide Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS) and Software-as-a-Service (SaaS). Students are introduced to hardware, software and storage systems that provide the foundation for modern network and compute platforms. Cloud Networking and Virtualization careers represent one of the most sought after skills and abilities required in the IT job market. Rapid advances in technology, shared services, cloud-based applications, and the Internet-of-Things will continue to fuel the need for knowledgeable IT professionals.

**Required General Education Courses****15 credit hours as follows:**

COM-101	Composition I	3
COM-103	Speech Fundamentals	3
MTH-120	General Education Mathematics	3

(Note: MTH-120 or higher. MTH-120 recommended for transfer students)

**MTH-120: A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

**Select 3 credit hours from Humanities and Fine Arts or Social/Behavioral Sciences:**

ANT, ARB, ART, ECO, FRE, GEO, HIS, HUM, LIT, MUS, PHI, PSC, PSY, SOC, SSC, SPA, or THE

**Select 3 credit hours from Physical and Life Sciences:**

BIO, CHM, EAS, GEL, NAT, PHY, PHS

**Required Career Courses—45 credit hours as follows:**

**Core IT Technology—18 credit hours as follows:**

LAN-101	Orientation to IT Professions	1
LAN-103	Security Awareness	1
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
LAN-121	Network Essentials	3
LAN-122	Network Services	4
LAN-246	Routing and Switching - CCNA	3

**Cloud Networking and Virtualization Specialty Track—27 credit hours as follows:**

LAN-102	Voice and Data Cabling	3
LAN-251	WLAN Design - CWNA	3
LAN-256	LAN Design - CCNA	3
LAN-266	WAN Design - CCNA	3
LAN-280	High Availability Virtualization	3
LAN-281	Scaling Virtualization	3
LAN-290	Storage Management	3
LAN-291	Cloud Technologies	3
LAN-295	Cloud and Virtual Networking	3

#### Suggested Schedule

**Semester 1 (17 credit hours)**

LAN-101	Orientation to IT Professions	1
LAN-102	Voice and Data Cabling	3
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
LAN-121	Network Essentials	3
LAN-122	Network Services	4

(Take LAN-111 and LAN-121: 1st 8 weeks)

(Take LAN-112 and LAN-122: 2nd 8 weeks)

**Semester 2 (16 credit hours)**

COM-101	Composition I	3
LAN-103	Security Awareness	1
LAN-246	Routing and Switching - CCNA	3
LAN-256	LAN Design - CCNA	3
LAN-266	WAN Design - CCNA	3

— -	Humanities and Fine Arts Elective	3
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OR	Social and Behavioral Sciences Elective	3
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#### Semester 3 (15 credit hours)

COM-103	Speech Fundamentals	3
LAN-280	High Availability Virtualization	3
LAN-290	Storage Management	3
LAN-295	Cloud and Virtual Networking	3
MTH-120	General Education Mathematics	3

(Note: Take MTH-120 or higher)

#### Semester 4 (12 credit hours)

LAN-251	WLAN Design - CWNA	3
LAN-281	Scaling Virtualization	3
LAN-291	Cloud Technologies	3
— -	Physical and Life Sciences Elective	3

## Cisco Network Associate, Certificate

### Certificate—23 credit hours

#### Curriculum Code 1447

This program prepares students for employment as a Cisco network technician. Graduates will be able to administer, install, maintain and troubleshoot Cisco systems. In the program, students are introduced to routers, LAN/WAN design and the integration of the Internet in the corporate enterprise network. Students also use this program as an introduction to courses required for the CCNA (Cisco Certified Network Associate). Students can benefit from this program if they are just beginning to train for a career in Cisco network management, or if they already work in the industry and need to upgrade their job skills. Common job titles for recipients of this certificate include help desk technician, LAN technician, Cisco service representative, technical support specialist, and network system administrator.

#### Required Career Courses

##### 23 credit hours as follows:

LAN-101	Orientation to IT Professions	1
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
LAN-121	Network Essentials	3
LAN-122	Network Services	4
LAN-246	Routing and Switching - CCNA	3
LAN-256	LAN Design - CCNA	3
LAN-266	WAN Design - CCNA	3

#### Suggested Schedule

##### Semester 1 (11 credit hours)

LAN-101	Orientation to IT Professions	1
LAN-121	Network Essentials	3
LAN-122	Network Services	4
LAN-246	Routing and Switching - CCNA	3

(Take LAN-121: 1st 8 weeks)

(Take LAN-122: 2nd 8 weeks)

**Semester 2 (12 credit hours)**

LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
LAN-256	LAN Design - CCNA	3
LAN-266	WAN Design - CCNA	3

**Microsoft Associate, Certificate****Certificate—24 credit hours***Curriculum Code 1446*

This program is designed for information technology professionals pursuing Microsoft training and industry certification.

**Required Career Courses****24 credit hours as follows:**

LAN-101	Orientation to IT Professions	1
LAN-103	Security Awareness	1
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
LAN-121	Network Essentials	3
LAN-122	Network Services	4
LAN-230	Managing Windows Servers	3
LAN-233	Managing Database Services	3
LAN-251	WLAN Design - CWNA	3

**Suggested Schedule****Semester 1 (15 credit hours)**

LAN-101	Orientation to IT Professions	1
LAN-103	Security Awareness	1
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
LAN-121	Network Essentials	3
LAN-122	Network Services	4

(Take LAN-111 and LAN-121: 1st 8 weeks)

(Take LAN-112 and LAN-122: 2nd 8 weeks)

**Semester 2 (9 credit hours)**

LAN-230	Managing Windows Servers	3
LAN-233	Managing Database Services	3
LAN-251	WLAN Design - CWNA	3

**Cisco Network Professional, Certificate****Certificate—16 credit hours***Curriculum Code 1448*

**New students are currently not being admitted.**

**Computer and Local Area Network Technician**

**This program consists of one degree and four certificates.**

**Computer and Local Area Network Technician, A.A.S.****A.A.S. Degree—63 credit hours***Curriculum Code 1416*

This program prepares students for entry-level positions as a data communications specialist in the information technology profession. Common career titles include PC support technician, LAN specialist, help desk support specialist, LAN system administrator, LAN design specialist, LAN engineer, and many others. The program prepares students for rewarding careers at the forefront of the information technological revolution. Students will examine the installation, maintenance, repair, and management of desktop PCs and local area networks. Students receive hands-on training in network operating systems, user administration, network security, and LAN switching and bridging design. The program also helps students prepare for A+, N+, CCENT, Security Plus, and CCNA certification. Graduates of this program possess a wide range of product knowledge as well as hands-on experience in hardware and software installation and support.

Employment for electronic and computer technicians is expected to grow as fast as the average for all occupations. New technologies and increased computer use will continue to stimulate the demand for such workers, and many will find employment in private industry.

**General Education Requirements****18 credit hours as follows:**

BUS-120	Business Mathematics	3
OR		
MTH-120	General Education Mathematics	3
COM-101	Composition I	3
COM-103	Speech Fundamentals	3

(Note: Take MTH-120 or higher.)

**MTH-120: A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

**Select 3 credit hours from Social/Behavioral Sciences:**

ANT, ECO, GEO, HIS, PSC, PSY, SOC, SSC

**Select 3 credit hours from Physical and Life Sciences:**

BIO, CHM, EAS, GEL, MTH, NAT, PHS, PHY

**Select 3 credit hours from Humanities and Fine Arts:**

ARB, ART, FRE, HUM, LIT, MUS, PHI, SPA, THE

**Career Course Requirements**

**Core IT Technology Track—18 credit hours as follows:**

LAN-101	Orientation to IT Professions	1
LAN-103	Security Awareness	1
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
LAN-121	Network Essentials	3
LAN-122	Network Services	4
LAN-246	Routing and Switching - CCNA	3

**IT Specialty Track—15 credit hours as follows:**

LAN-102	Voice and Data Cabling	3
LAN-153	IT Security Essentials - Security+	3
LAN-220	Linux Administration	3
LAN-230	Managing Windows Servers	3
LAN-251	WLAN Design - CWNA	3

**Elective Courses— Select 12 credit hours from the following:**

LAN-163	Ethical Hacking	3
LAN-253	Network Security	3
LAN-256	LAN Design - CCNA	3
LAN-260	Internship	3
LAN-266	WAN Design - CCNA	3
LAN-273	Managing Information Security	3
LAN-280	High Availability Virtualization	3
LAN-281	Scaling Virtualization	3

**Suggested Schedule****Semester 1 (17 credit hours)**

COM-101	Composition I	3
LAN-101	Orientation to IT Professions	1
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
LAN-121	Network Essentials	3
LAN-122	Network Services	4

(Take LAN-111 and LAN-121: 1st 8 weeks)

(Take LAN-112 and LAN-122: 2nd 8 weeks)

**Semester 2 (16 credit hours)**

BUS-120	Business Mathematics	3
OR		3
MTH-120	General Education Mathematics	3
COM-103	Speech Fundamentals	3
LAN-102	Voice and Data Cabling	3
LAN-103	Security Awareness	1
LAN-153	IT Security Essentials - Security+	3
LAN-__	Elective	3

**Semester 3 (15 credit hours)**

LAN-220	Linux Administration	3
LAN-246	Routing and Switching - CCNA	3
LAN-__	Elective	3
__-__	Humanities and Fine Arts Elective	3
__-__	Physical and Life Sciences Elective	3

**Semester 4 (15 credit hours)**

LAN-230	Managing Windows Servers	3
LAN-251	WLAN Design - CWNA	3
LAN-__	Elective	3
LAN-__	Elective	3
__-__	Social and Behavioral Sciences Elective	3

**Computer Support Associate, Certificate****Certificate—7 credit hours***Curriculum Code 1348*

This program prepares students to work in career fields of computer support, maintenance and repair. Students will receive training in computer hardware, software and support. Students will learn about computer hardware components, system operating systems and application software. Jobs in computer maintenance can be found in such career fields as PC support technician, computer help desk, and computer configuration specialist.

**Required Career Courses****7 credit hours as follows:**

LAN-101	Orientation to IT Professions	1
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3

**Suggested Schedule****Semester 1 (7 credit hours)**

LAN-101	Orientation to IT Professions	1
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3

**Computer Technician, Certificate****Certificate—14 credit hours***Curriculum Code 1418*

This program prepares students for entry-level positions in PC installation, maintenance and repair professions. Common career titles include PC support technician, hardware specialist, help desk support specialist, hardware configuration technician, and many others. Students will examine PC software, including operating systems, office applications, network management, and desktop utilities. Courses also introduce a variety of current hardware technology, including CPU features and functions, system architecture, storage technology, backup devices, multimedia devices, and data communication equipment. This program also prepares students for the CompTIA A+ and N+ certifications.

**Required Career Courses****14 credit hours as follows:**

LAN-101	Orientation to IT Professions	1
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
LAN-121	Network Essentials	3
LAN-122	Network Services	4

**Suggested Schedule****Semester 1 (7 credit hours)**

LAN-101	Orientation to IT Professions	1
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3

**Semester 2 (7 credit hours)**

LAN-121	Network Essentials	3
LAN-122	Network Services	4

(Take LAN-121: 1st 8 weeks)

(Take LAN-122: 2nd 8 weeks)

## LAN Technician, Certificate

### Certificate—24 credit hours

#### Curriculum Code 1419

This program prepares students for entry-level positions as a data communication specialist in the information technology profession. Common career titles include LAN specialist, LAN system administrator, LAN design specialist, LAN engineer, and many others. The LAN Technician certificate prepares students for rewarding careers at the forefront of the information technological revolution. Students will examine the installation, maintenance, repair, and design of local area networks. Students receive hands-on training in network operating systems, user administration, network security, and LAN switching and bridging design. This program also helps students prepare for N+, CCENT, Security Plus, and CCNA certification. Graduates of this program possess a wide range of product knowledge as well as hands-on experience in hardware and software installation and support.

#### Required Career Courses

##### 24 credit hours as follows:

LAN-101	Orientation to IT Professions	1
LAN-103	Security Awareness	1
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
LAN-121	Network Essentials	3
LAN-122	Network Services	4
LAN-220	Linux Administration	3
LAN-230	Managing Windows Servers	3
LAN-251	WLAN Design - CWNA	3

#### Suggested Schedule

##### Semester 1 (15 credit hours)

LAN-101	Orientation to IT Professions	1
LAN-103	Security Awareness	1
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
LAN-121	Network Essentials	3
LAN-122	Network Services	4

(Take LAN-111 and LAN-121: 1st 8 weeks)

(Take LAN-112 and LAN-122: 2nd 8 weeks)

##### Semester 2 (9 credit hours)

LAN-220	Linux Administration	3
LAN-230	Managing Windows Servers	3
LAN-251	WLAN Design - CWNA	3

## Network Administrator, Certificate

### Certificate—30 credit hours

#### Curriculum Code 1422

The program is designed to address the need for IT professionals with a comprehensive understanding of multiple operating systems in a mix of vendor environments. The program provides a multi-product approach to system administration. The courses introduce Microsoft, UNIX, Cisco, and Netware products in an interoperable environment.

#### Required Career Courses

##### 30 credit hours as follows:

LAN-101	Orientation to IT Professions	1
LAN-102	Voice and Data Cabling	3
LAN-103	Security Awareness	1
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
LAN-121	Network Essentials	3
LAN-122	Network Services	4
LAN-153	IT Security Essentials - Security+	3
LAN-220	Linux Administration	3
LAN-230	Managing Windows Servers	3
LAN-251	WLAN Design - CWNA	3

#### Suggested Schedule

##### Semester 1 (15 credit hours)

LAN-101	Orientation to IT Professions	1
LAN-103	Security Awareness	1
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
LAN-121	Network Essentials	3
LAN-122	Network Services	4

##### Semester 2 (15 credit hours)

LAN-102	Voice and Data Cabling	3
LAN-153	IT Security Essentials - Security+	3
LAN-220	Linux Administration	3
LAN-230	Managing Windows Servers	3
LAN-251	WLAN Design - CWNA	3

## Computed Tomography

*This program consists of one certificate.*

## Computed Tomography, Certificate

### Certificate—19 credit hours

#### Curriculum Code 1340

This advanced certificate program provides students with a complete educational experience for licensed radiologic technologists wishing to become a Computed Tomography Technologist. The program provides each licensed radiologic technologist with opportunities to learn and to develop competence in patient care, communication skills, critical thinking, and technical skills that will permit the student to become a certified Computed Tomography Technologist.

#### Required Career Courses

##### 19 credit hours as follows:

RAD-208	Introduction to Computed Tomography	1
RAD-221	Procedures and Patient Care	2
RAD-222	Sectional Anatomy and Pathology I	2

RAD-223	Physics and Instrumentation	3
RAD-224	Advanced Computed Tomography Imaging	3
RAD-225	Sectional Anatomy and Pathology II	2
RAD-226	Clinical Education I	3
RAD-227	Clinical Education II	3

### Suggested Schedule

#### Semester 1 - Fall (11 credit hours)

RAD-208	Introduction to Computed Tomography	1
RAD-221	Procedures and Patient Care	2
RAD-222	Sectional Anatomy and Pathology I	2
RAD-223	Physics and Instrumentation	3
RAD-226	Clinical Education I	3

#### Semester 2 - Spring (8 credit hours)

RAD-224	Advanced Computed Tomography Imaging	3
RAD-225	Sectional Anatomy and Pathology II	2
RAD-227	Clinical Education II	3

## Computer Graphics Imagery

**This program consists of one degree and four certificates.**

### Computer Graphics Imagery, A.A.S.

#### A.A.S. Degree—62 credit hours

##### Curriculum Code 1374

This program provides students with contemporary training and experience in the emerging and high-employment field of computer graphics imagery (CGI). Engineering and architectural firms employ skilled workers in computer graphics to create photo-realistic renderings, two- and three-dimensional computer animations, and three-dimensional models for manufacturers, designers, customers and builders. Computer graphics imagery technologies focus on the possible relationships between parts, objects, people and environments. Computer-generated models are matched to real-world data in order to build simulations. Computer graphic architectural modeling tools allow designers to visualize space and generate interactive and virtual environments at the part, system and environment levels.

#### General Education Requirements

##### 15 credit hours as follows:

COM-101	Composition I	3
COM-103	Speech Fundamentals	3

##### Select 3 credit hours from Math

or placement into MTH-120 or higher and 3 credit hours from BIO, CHM, EAS, GEL, NAT, PHS, PHY

**\*\*A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or

- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

##### Select 3 credit hours from Humanities and Fine Arts:

ARB, ART, FRE, HUM, LIT, MUS, PHI, SPA, THE

##### Select 3 credit hours from Social/Behavioral Sciences:

ANT, ECO, GEO, HIS, PSC, PSY, SOC, SSC

#### Career Courses Requirements

##### 32 credit hours as follows:

CGI-101	Orientation to CGI Careers	1
CGI-102	Computer Graphics I	2
CGI-103	2D Graphic Design	3
CGI-104	Computer Animation I	3
CGI-110	Computer Storyboarding	2
CGI-114	Computer Animation II	3
CGI-116	3D Computer Animation I	3
CGI-120	3D Computer Animation II	3
CGI-122	3D Computer Character Modeling	3
CGI-126	Computer Physics Simulation	3
CGI-210	Introduction to Game Design	3
CGI-212	Game Design Elements	3

#### Career Electives

##### Select 15 credit hours from the following:

CGI-118	Applied Animation Techniques	3
CGI-130	Effects and Compositing	3
CGI-199	Topics	1-3
MDT-145	Intro to Computer Aided Drafting	3
MDT-160	Introduction to 3D Modeling	3
MDT-278	Design Visualization	3
MDT-285	3D Parametric Modeling	3

#### Suggested Schedule

##### Semester 1 (15 credit hours)

COM-101	Composition I	3
CGI-101	Orientation to CGI Careers	1
CGI-102	Computer Graphics I	2
CGI-103	2D Graphic Design	3
CGI-104	Computer Animation I	3
_____	Humanities and Fine Arts Elective	3

##### Semester 2 (17 credit hours)

CGI-110	Computer Storyboarding	2
CGI-114	Computer Animation II	3
CGI-116	3D Computer Animation I	3
CGI-199	Topics	1-3
_____	Science/Math Elective	3
_____	Social and Behavioral Sciences Elective	3

(Note: Take CGI-199 or other career elective.)

##### Semester 3 (15 credit hours)

CGI-120	3D Computer Animation II	3
CGI-122	3D Computer Character Modeling	3
CGI-126	Computer Physics Simulation	3
MDT or	MDT or CGI Electives	6
CGI-_____		

**Semester 4 (15 credit hours)**

CGI-210	Introduction to Game Design	3
CGI-212	Game Design Elements	3
COM-103	Speech Fundamentals	3
MDT or CGI-____	MDT or CGI Electives	6

**Computer Graphics Associate, Certificate****Certificate—6 credit hours***Curriculum Code 1375*

This program provides students with contemporary training and experience in the emerging and high-employment field of computer graphics imagery (CGI). Engineering and architectural firms employ skilled workers in computer graphics to create photo-realistic renderings, two- and three-dimensional computer animations, and three-dimensional models for manufacturers, designers, customers and builders. Computer graphics imagery technologies focus on the possible relationships between parts, objects, people and environments. Computer-generated models are matched to real-world data in order to build simulations. Computer graphic architectural modeling tools allow designers to visualize space and generate interactive and virtual environments at the part, system and environment levels.

**Required Career Courses****6 credit hours as follows:**

CGI-101	Orientation to CGI Careers	1
CGI-102	Computer Graphics I	2
CGI-104	Computer Animation I	3

**Suggested Schedule****Semester 1 (6 credit hours)**

CGI-101	Orientation to CGI Careers	1
CGI-102	Computer Graphics I	2
CGI-104	Computer Animation I	3

**Computer Graphics Professional, Certificate****Certificate—9 credit hours***Curriculum Code 1377*

This program provides students with contemporary training and experience in the emerging and high-employment field of computer graphics imagery (CGI). Engineering and architectural firms employ skilled workers in computer graphics to create photo-realistic renderings, two and three-dimensional computer animations, and three-dimensional models for manufacturers, designers, customers and builders. Computer graphics imagery technologies focus on the possible relationships between parts, objects, people and environments. Computer-generated models are matched to real-world data in order to build simulations. Computer graphic architectural modeling tools allow designers to visualize space and generate interactive and virtual environments at the part, system and environment levels.

**Required Career Courses****9 credit hours as follows:**

CGI-120	3D Computer Animation II	3
CGI-122	3D Computer Character Modeling	3
CGI-126	Computer Physics Simulation	3

**Suggested Schedule****Semester 1 (9 credit hours)**

CGI-120	3D Computer Animation II	3
CGI-122	3D Computer Character Modeling	3
CGI-126	Computer Physics Simulation	3

**Computer Graphics Designer, Certificate****Certificate—11 credit hours***Curriculum Code 1376*

This program provides students with contemporary training and experience in the emerging and high-employment field of computer graphics imagery (CGI). Engineering and architectural firms employ skilled workers in computer graphics to create photo-realistic renderings, two and three-dimensional computer animations, and three-dimensional models for manufacturers, designers, customers and builders. Computer graphics imagery technologies focus on the possible relationships between parts, objects, people and environments. Computer-generated models are matched to real-world data in order to build simulations. Computer graphic architectural modeling tools allow designers to visualize space and generate interactive and virtual environments at the part, system and environment levels.

**Required Career Courses****11 credit hours as follows:**

CGI-103	2D Graphic Design	3
CGI-110	Computer Storyboarding	2
CGI-114	Computer Animation II	3
CGI-116	3D Computer Animation I	3

**Suggested Schedule****Semester 1 (11 credit hours)**

CGI-103	2D Graphic Design	3
CGI-110	Computer Storyboarding	2
CGI-114	Computer Animation II	3
CGI-116	3D Computer Animation I	3

**Computer Graphics Master, Certificate****Certificate—26 credit hours***Curriculum Code 1378*

This program provides students with contemporary training and experience in the emerging and high-employment field of computer graphics imagery (CGI). Engineering and architectural firms employ skilled workers in computer graphics to create photo-realistic renderings, two and three-dimensional computer animations, and three-dimensional models for manufacturers, designers, customers and builders. Computer graphics imagery technologies focus on the possible relationships between parts, objects, people

and environments. Computer-generated models are matched to real-world data in order to build simulations. Computer graphic architectural modeling tools allow designers to visualize space and generate interactive and virtual environments at the part, system and environment levels.

#### Required Career Courses

##### 26 credit hours as follows:

CGI-101	Orientation to CGI Careers	1
CGI-102	Computer Graphics I	2
CGI-103	2D Graphic Design	3
CGI-104	Computer Animation I	3
CGI-110	Computer Storyboarding	2
CGI-114	Computer Animation II	3
CGI-116	3D Computer Animation I	3
CGI-120	3D Computer Animation II	3
CGI-122	3D Computer Character Modeling	3
CGI-126	Computer Physics Simulation	3

#### Suggested Schedule

##### Semester 1 (6 credit hours)

CGI-101	Orientation to CGI Careers	1
CGI-102	Computer Graphics I	2
CGI-104	Computer Animation I	3

##### Semester 2 (11 credit hours)

CGI-103	2D Graphic Design	3
CGI-110	Computer Storyboarding	2
CGI-114	Computer Animation II	3
CGI-116	3D Computer Animation I	3

##### Semester 3 (9 credit hours)

CGI-120	3D Computer Animation II	3
CGI-122	3D Computer Character Modeling	3
CGI-126	Computer Physics Simulation	3

## Criminal Justice

**This program consists of one degree.**

### Criminal Justice, A.A.S.

#### A.A.S. Degree—62 credit hours

##### Curriculum Code 1260

This program prepares students for entry-level careers in the criminal justice system, including careers in policing, the courts and corrections. Employment of police officers is expected to grow faster than the average, while employment of correctional officers is expected to increase much faster than the average. Because of the attractive salaries and benefits, the number of qualified candidates exceeds the number of job openings in federal law enforcement agencies and in most state, local and special police departments, resulting in increased hiring standards and selectivity by employers.

Students may be able to receive an A.A. (Associate in Arts) degree with their A.A.S. degree. Refer to the A.A. degree graduation requirements or contact an academic advisor.

Students also may consult the Illinois Articulation Initiative (IAI) (p. 39) recommended curriculum in criminal justice.

#### Required General Education Courses

##### 32 credit hours as follows:

COM-101	Composition I	3
COM-102	Composition II	3
COM-103	Speech Fundamentals	3
MTH-120	General Education Mathematics	3
PSC-110	American National Government	3
PSY-101	Introduction to Psychology	3
SOC-101	General Sociology	3

(Note: Take MTH-120 or higher.)

**MTH-120: A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121 or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

##### Select 8 credit hours Physical and Life Sciences:

BIO, CHM, EAS, GEL, NAT, PHS, PHY (two lab science courses recommended)

##### Select 3 credit hours from Humanities and Fine Arts:

ARB, ART, FRE, HUM, LIT, MUS, PHI, SPA, THE

#### Required Career Courses

##### 24 credit hours as follows:

CRJ-101	Introduction to Criminal Justice	3
CRJ-105	Criminology	3
CRJ-106	Introduction to Corrections	3
CRJ-107	Juvenile Delinquency & Procedures	3
CRJ-201	Police in American Society	3
CRJ-202	Investigation & Criminal Evidence	3
CRJ-206	Substantive Criminal Law	3
CRJ-207	Procedural Criminal Law	3

#### Electives

##### Select 6 credit hours from the following course groups or specific courses:

ADC-230	Special Topics in Addiction Studies	1
BUS-142	Financial Accounting	4
CRJ-____	(any Criminal Justice)	1-3
EMS-101	Emergency Medical Technician	8
IMS-115	Microsoft Office I	3
MTH-139	Probability and Statistics	4
MTH-141	College Algebra (Functions)	4
PEH-107	Introduction to Group Fitness	1
SLP-____	(any Security and Loss Prevention)	1-3

(Note: In addition, any course that fulfills the general education requirement for an A.A. degree can be taken as

an elective. See the Transfer Programs (p. 39) section in the catalog for more information.)

#### Suggested Schedule

##### Semester 1 (15 credit hours)

COM-101	Composition I	3
CRJ-101	Introduction to Criminal Justice	3
CRJ-105	Criminology	3
SOC-101	General Sociology	3
—-—	Humanities and Fine Arts Elective	3

##### Semester 2 (15 credit hours)

COM-102	Composition II	3
CRJ-106	Introduction to Corrections	3
CRJ-107	Juvenile Delinquency & Procedures	3
PSC-110	American National Government	3
PSY-101	Introduction to Psychology	3

##### Semester 3 (16 credit hours)

COM-103	Speech Fundamentals	3
CRJ-201	Police in American Society	3
CRJ-206	Substantive Criminal Law	3
—-—	Career Elective	3
—-—	Physical and Life Sciences Elective	4

##### Semester 4 (16 credit hours)

CRJ-202	Investigation & Criminal Evidence	3
CRJ-207	Procedural Criminal Law	3
MTH-120	General Education Mathematics	3
—-—	Career Elective	3
—-—	Physical and Life Sciences Elective	4

## Culinary Arts

**This program consists of two degrees and two certificates.**

### Baking and Pastry, A.A.S.

#### A.A.S. Degree—65 credit hours

##### Curriculum Code 1359

This program is designed to provide training essential to effective baking and pastry management in the hospitality industry. Graduates will be able to oversee baking and pastry food service operations including hotel, health care, cruise ship, catering, and manufacturing. They will gain expertise in menu planning, cost controls, marketing, nutrition, sanitation, and food preparation and production. This program prepares students for entry- to mid-level positions within the hospitality industry. This degree program is associated with the college's 30 credit-hour certificate in Baking and Pastry Arts (curriculum code 1323).

##### Required General Education Courses

##### 15 credit hours as follows:

BUS-120	Business Mathematics	3
COM-101	Composition I	3
COM-103	Speech Fundamentals	3

**BUS-120: A minimum level of competency in mathematics is required for graduation for all A.A.S.**

**degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

##### Select 3 credit hours from Humanities and Fine Arts or Social/Behavioral Sciences:

ANT, ARB, ART, ECO, FRE, GEO, HIS, HUM, LIT, MUS, PHI, PSC, PSY, SOC, SPA, SSC, THE

##### Select 3 credit hours from Physical and Life Sciences:

BIO, CHM, EAS, GEL, NAT, PHS, PHY

##### Required Career Courses

##### 50 credit hours as follows:

IMS-115	Microsoft Office I	3
RTM-100	Food Service Sanitation	2
RTM-101	Intro to Hospitality Industry	3
RTM-102	Quantity Food Production I	4
RTM-103	Basic Food Theory	2
RTM-203	Garde Manger	4
RTM-206	Menu Writing and Marketing	3
RTM-209	Baking/Pastry I	4
RTM-210	Nutrition for Food Service Managers	3
RTM-211	Baking/Pastry II	4
RTM-212	Basic Cake Decorating	2
RTM-213	Artisan Breads	2
RTM-214	Chocolate & Confectionary Artistry	2
RTM-215	Restaurant and Buffet Desserts	2
RTM-216	Advanced Cake Decorating	2
RTM-218	Baking Science & Recipe Development	2
RTM-231	Hospitality Supervision	3
RTM-240	Purchasing and Cost Control	3

##### Suggested Schedule

##### Semester 1 (15 credit hours)

BUS-120	Business Mathematics	3
RTM-100	Food Service Sanitation	2
RTM-102	Quantity Food Production I	4
RTM-103	Basic Food Theory	2
RTM-209	Baking/Pastry I	4

##### Semester 2 (17 credit hours)

COM-101	Composition I	3
RTM-101	Intro to Hospitality Industry	3
RTM-203	Garde Manger	4
RTM-211	Baking/Pastry II	4
—-—	Physical and Life Sciences Elective	3

##### Semester 3 (17 credit hours)

COM-103	Speech Fundamentals	3
IMS-115	Microsoft Office I	3
RTM-212	Basic Cake Decorating	2
RTM-213	Artisan Breads	2
RTM-216	Advanced Cake Decorating	2

RTM-218	Baking Science & Recipe Development	2
___ - ___	Humanities and Fine Arts Elective	3
OR		
___ - ___	Social and Behavioral Sciences Elective	3
<b>Semester 4 (16 credit hours)</b>		
RTM-206	Menu Writing and Marketing	3
RTM-210	Nutrition for Food Service Managers	3
RTM-214	Chocolate & Confectionary Artistry	2
RTM-215	Restaurant and Buffet Desserts	2
RTM-231	Hospitality Supervision	3
RTM-240	Purchasing and Cost Control	3

## Culinary Arts Management, A.A.S.

### A.A.S. Degree—64 credit hours

#### Curriculum Code 1324

This program is designed to provide small business management training essential to effective culinary arts management in the hospitality industry. Graduates will be able to oversee any food service operation, including hotel, health care, cruise ship, catering, and manufacturing; and will have expertise in menu planning, cost controls, marketing, nutrition, sanitation, and food preparation and production. The program prepares students for entry- to mid-level positions within the hospitality industry. Employment in restaurants is expected to grow rapidly as the average age of the population increases and demand for restaurant services and varied menus increases. Thus, more highly skilled chefs and cooks will be needed. Employment of institutional and cafeteria chefs and cooks will grow about as fast as average, and will be concentrated in educational and health service sectors.

#### Required General Education Courses

##### 15 credit hours as follows:

BUS-120	Business Mathematics	3
COM-101	Composition I	3
COM-103	Speech Fundamentals	3

**BUS-120: A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121 or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

**Select 3 credit hours from Humanities and Fine Arts or Social/Behavioral Sciences:**

ANT, ARB, ART, ECO, FRE, GEO, HIS, HUM, LIT, MUS, PHI, PSC, PSY, SOC, SPA, SSC, THE

**Select 3 credit hours from Physical and Life Sciences:**

BIO, CHM, EAS, GEL, NAT, PHS, PHY

#### Required Career Courses

##### 49 credit hours as follows:

IMS-115	Microsoft Office I	3
RTM-100	Food Service Sanitation	2
RTM-101	Intro to Hospitality Industry	3
RTM-102	Quantity Food Production I	4
RTM-103	Basic Food Theory	2
RTM-202	Quantity Food Production II	4
RTM-203	Garde Manger	4
RTM-204	Quantity Food Production III	4
RTM-206	Menu Writing and Marketing	3
RTM-209	Baking/Pastry I	4
RTM-210	Nutrition for Food Service Managers	3
RTM-226	Front-of-the-House Management	3
RTM-231	Hospitality Supervision	3
RTM-240	Purchasing and Cost Control	3
RTM-245	Quantity Food Production IV	4

#### Suggested Schedule

##### Semester 1 (17 credit hours)

BUS-120	Business Mathematics	3
IMS-115	Microsoft Office I	3
RTM-100	Food Service Sanitation	2
RTM-101	Intro to Hospitality Industry	3
RTM-102	Quantity Food Production I	4
RTM-103	Basic Food Theory	2

##### Semester 2 (17 credit hours)

COM-101	Composition I	3
RTM-202	Quantity Food Production II	4
RTM-206	Menu Writing and Marketing	3
RTM-209	Baking/Pastry I	4
RTM-210	Nutrition for Food Service Managers	3

##### Semester 3 (17 credit hours)

COM-103	Speech Fundamentals	3
RTM-203	Garde Manger	4
RTM-204	Quantity Food Production III	4
RTM-231	Hospitality Supervision	3
RTM-240	Purchasing and Cost Control	3

##### Semester 4 (13 credit hours)

RTM-226	Front-of-the-House Management	3
RTM-245	Quantity Food Production IV	4
___ - ___	Physical and Life Sciences Elective	3
___ - ___	Humanities and Fine Arts Elective	3
OR		
___ - ___	Social and Behavioral Sciences Elective	3

## Baking/Pastry Arts, Certificate

### Certificate—37 credit hours

#### Curriculum Code 1324

This program prepares students for entry-level positions in the baking and pastry area of culinary arts.

#### Required Career Courses

**37 credit hours as follows:**

BUS-120	Business Mathematics	3
RTM-100	Food Service Sanitation	2
RTM-101	Intro to Hospitality Industry	3
RTM-102	Quantity Food Production I	4
RTM-103	Basic Food Theory	2
RTM-209	Baking/Pastry I	4
RTM-210	Nutrition for Food Service Managers	3
RTM-211	Baking/Pastry II	4
RTM-212	Basic Cake Decorating	2
RTM-213	Artisan Breads	2
RTM-214	Chocolate & Confectionary Artistry	2
RTM-231	Hospitality Supervision	3
RTM-240	Purchasing and Cost Control	3

**Suggested Schedule****Semester 1 (15 credit hours)**

BUS-120	Business Mathematics	3
RTM-100	Food Service Sanitation	2
RTM-102	Quantity Food Production I	4
RTM-103	Basic Food Theory	2
RTM-209	Baking/Pastry I	4

**Semester 2 (16 credit hours)**

RTM-101	Intro to Hospitality Industry	3
RTM-211	Baking/Pastry II	4
RTM-212	Basic Cake Decorating	2
RTM-213	Artisan Breads	2
RTM-214	Chocolate & Confectionary Artistry	2
RTM-231	Hospitality Supervision	3

**Semester 3 (6 credit hours)**

RTM-210	Nutrition for Food Service Managers	3
RTM-240	Purchasing and Cost Control	3

**Culinary Arts Management, Certificate****Certificate—39 credit hours***Curriculum Code 1322*

This program prepares students for entry-level positions in food production.

**Required Career Courses****39 credit hours as follows:**

BUS-120	Business Mathematics	3
RTM-100	Food Service Sanitation	2
RTM-101	Intro to Hospitality Industry	3
RTM-102	Quantity Food Production I	4
RTM-103	Basic Food Theory	2
RTM-202	Quantity Food Production II	4
RTM-203	Garde Manger	4
RTM-204	Quantity Food Production III	4
RTM-209	Baking/Pastry I	4
RTM-210	Nutrition for Food Service Managers	3
RTM-231	Hospitality Supervision	3
RTM-240	Purchasing and Cost Control	3

**Suggested Schedule****Semester 1 (15 credit hours)**

BUS-120	Business Mathematics	3
RTM-100	Food Service Sanitation	2
RTM-102	Quantity Food Production I	4

RTM-103	Basic Food Theory	2
RTM-209	Baking/Pastry I	4

**Semester 2 (16 credit hours)**

RTM-101	Intro to Hospitality Industry	3
RTM-202	Quantity Food Production II	4
RTM-210	Nutrition for Food Service Managers	3
RTM-231	Hospitality Supervision	3
RTM-240	Purchasing and Cost Control	3

**Semester 3 (8 credit hours)**

RTM-203	Garde Manger	4
RTM-204	Quantity Food Production III	4

**Digital Art/Design**

***This program consists of one degree and one certificate.***

**Digital Art/Design, A.A.S.****A.A.S. Degree—64 credit hours***Curriculum Code 1428*

This program prepares students for a career as a graphic artist/designer in information technology industries related to the visual arts. Students obtain a solid theoretical foundation in traditional art and design, in addition to developing advanced skills in Macintosh hardware and Adobe software for quality computer graphics and design production.

Employment of graphic artists is expected to grow faster than the average for all occupations. Demand will be strong as producers of information, goods and services place even more emphasis on visual appeal in product design, advertising, marketing, and media. Further, the demand for design for the web and mobile devices will spur employment of graphic artists.

**Required General Education Courses****19 credit hours as follows:**

COM-101	Composition I	3
COM-103	Speech Fundamentals	3

**Select a minimum of 3 credit hours from Mathematics:**

BUS-120	Business Mathematics	3
MTH-120	General Education Mathematics	3
MTH-139	Probability and Statistics	4
MTH-143	Finite Mathematics	4
MTH-145	Calculus for Business & Social Science	4
MTH-150	Calculus I/Analytic Geometry	5
MTH-212	Statistics for Business	4
MTH-215	Discrete Mathematics	3

***A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees. This minimum competency may be demonstrated in one of three ways:***

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or

higher-level mathematics course for designated career programs; or

- An equivalent transfer course from another college with a minimum grade of "C".

**Select 3 credit hours from Humanities and Fine Arts:**

HUM, MUS, PHI, THE or

ART-205	Survey of Art I	3
ART-206	Survey of Art II	3
ART-208	Survey of Art III	3
ART-209	Survey of Non-Western Art	3

**Select 3 credit hours from Social and Behavioral Sciences:**

ANT, ECO, GEO, HIS, PSC, PSY, SOC, SSC

**Select 4 credit hours from Physical and Life Sciences:**

BIO, CHM, EAS, GEL, NAT, PHS, PHY

**Required Studio Courses**

**36 credit hours as follows:**

ART-101	Drawing I	3
ART-104	Drawing II	3
ART-116	Two-Dimensional Design	3
ART-118	Three-Dimensional Design	3
ART-146	Introduction to Computer Art	3
ART-165	Digital Photography: Introduction	3
ART-182	Digital Illustration	3
ART-184	Digital Imaging	3
ART-186	Design I: Layout	3
ART-230	Digital Design Internship	3
ART-246	Advanced Computer Art	3
ART-248	Design II: Interface	3

**Electives**

**Select a minimum of 9 credit hours from the following:**

ART-110	Art Appreciation	3
ART-125	Ceramics I	3
ART-150	Sculpture	3
ART-170	Printmaking	3
ART-205	Survey of Art I	3
ART-206	Survey of Art II	3
ART-207	Survey of American Art	3
ART-208	Survey of Art III	3
ART-209	Survey of Non-Western Art	3
ART-251	Digital Art/Design: Special Topics	3
ART-284	Independent Studio: Design	3
BUS-105	Small Business Management	4
BUS-230	Advertising	3
JRN-101	Introduction to Mass Communications	3
MIS-141	Website Development: HTML & CSS	3
OSA-135	Website Applications	3

**Suggested Schedule**

**Semester 1 (15 credit hours)**

COM-101	Composition I	3
ART-101	Drawing I	3
ART-116	Two-Dimensional Design	3
ART-146	Introduction to Computer Art	3
ART-165	Digital Photography: Introduction	3

**Semester 2 (15 credit hours)**

COM-103	Speech Fundamentals	3
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ART-104	Drawing II	3
ART-118	Three-Dimensional Design	3
ART-182	Digital Illustration	3
—	Humanities and Fine Arts Elective	3

**Semester 3 (18 credit hours)**

ART-184	Digital Imaging	3
ART-186	Design I: Layout	3
—	Mathematics Course	3-5
—	Social and Behavioral Sciences Elective	3
—	Program Elective	3
—	Program Elective	3

**Semester 4 (16 credit hours)**

ART-230	Digital Design Internship	3
ART-246	Advanced Computer Art	3
ART-248	Design II: Interface	3
—	Physical and Life Sciences Elective	4
—	Program Elective	3

**Digital Design, Certificate**

**Certificate—24 credit hours**

**Curriculum Code 1429**

This program is designed to provide persons who have experience, either on-the-job or in post-secondary degree programs, with a means to upgrade or add to their job skills. Based on studio art/design projects, students are given the opportunity of working with Adobe Creative Cloud software as a means to achieve experience for entry-level employment in graphic design and graphic design production. Graduates are able to find employment in one of the many design specializations.

**Required Studio Career Courses**

**24 credit hours as follows:**

ART-116	Two-Dimensional Design	3
ART-146	Introduction to Computer Art	3
ART-165	Digital Photography: Introduction	3
ART-182	Digital Illustration	3
ART-184	Digital Imaging	3
ART-186	Design I: Layout	3
ART-246	Advanced Computer Art	3
ART-248	Design II: Interface	3

**Suggested Schedule**

**Semester 1 (9 credit hours)**

ART-116	Two-Dimensional Design	3
ART-146	Introduction to Computer Art	3
ART-165	Digital Photography: Introduction	3

**Semester 2 (12 credit hours)**

ART-182	Digital Illustration	3
ART-184	Digital Imaging	3
ART-186	Design I: Layout	3
ART-246	Advanced Computer Art	3

**Semester 3 (3 credit hours)**

ART-248	Design II: Interface	3
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## Education

**This program consists of two degrees and five active certificates.**

### Early Childhood Educator, A.A.S.

#### A.A.S. Degree—61 credit hours

##### Curriculum Code 1264

This program prepares students for careers in early childhood development. It provides mid-management skills needed to work in kindergartens, nursery schools, daycare centers, and special programs for children from infancy through age 8.

##### Required General Education Courses

###### 25 credit hours as follows:

COM-101	Composition I	3
COM-102	Composition II	3
COM-103	Speech Fundamentals	3
MTH-102	Mathematics for Paraprofessionals	3
OR		
MTH-121	Math for Teachers I	3
PSY-101	Introduction to Psychology	3
PSY-104	Life-Span Developmental Psychology	3

**A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

###### Select 4 credit hours from Physical and Life Sciences with Lab:

BIO, CHM, EAS, GEL, NAT, PHS, PHY

###### Select 3 credit hours from Social/Behavioral Sciences:

ANT, ECO, GEO, HIS, PSC, PSY, SOC, SSC

##### Required Career Courses

###### 30 credit hours as follows:

ECE-101	Introduction to Early Childhood	3
ECE-105	Health, Safety and Nutrition	3
ECE-109	Child, Family and Community	3
ECE-201	Math, Science and Social Studies	3
ECE-202	Growth and Development/Young Child	3
ECE-205	Curriculum-Early Childhood Programs	3
EDU-103	Observation/Clinical Experience	3
EDU-104	Intro. to the Foundations of Reading	3
EDU-110	Technology for Educators	3
EDU-111	Intro to the Exceptional Child	3

##### Required Practicum and Seminar

###### Select one group (3 credit hours):

ECE-233	ECE Practicum	2
ECE-237	ECE Practicum Seminar	1
OR		
ECE-243	Infant/Toddler Practicum	2
ECE-247	Infant/Toddler Practicum Seminar	1

##### Required Elective

###### Select 3 credit hours:

ECE-107	Infant and Toddler Development	3
OR		
EDU-105	Classroom Management	3

(Note: Students pursuing **Level 4 Credential for**

**Infant/Toddler or ECE** must choose ECE-107 as their elective, successfully pass both ECE-233 ECE Practicum and ECE-237 ECE Seminar or both ECE-243 Infant/Toddler Practicum and ECE-247 Infant/Toddler Seminar, and earn the AAS degree to be eligible to apply for IL Infant/Toddler or ECE Credential – Level 4 through Gateways.)

(Note: **Directors Level 1 Credential:** Students must choose EDU-105 as their elective, earn the AAS degree, and then register for and successfully pass ECE-253 ECE Director Practicum and ECE-257 ECE Director Practicum Seminar to be eligible to apply for IL Director Level 1 Credential through Gateways.)

IL Gateway Application: [ilgateways.com/en/credentials](http://ilgateways.com/en/credentials)

##### Optional Electives

**There is no requirement for students in the program to take additional elective credit hours**

ECE-203	Administration of EC Programs	3
ECE-211	Special Topics in Education	1-3
ECE-253	ECE Director Practicum	3
ECE-257	ECE Director Practicum Seminar	1
EDU-108	Foundations of Bilingual Education	3
EDU-205	Literature for Children/Young Adults	3

(Note: No additional electives are required.)

(Note: **Directors Level 1 Credential:** Students must choose EDU-105 as their elective, earn the AAS degree, and then register for and successfully pass ECE-253 ECE Director Practicum and ECE-257 ECE Director Practicum Seminar to be eligible to apply for IL Director Level 1 Credential through Gateways.)

##### Suggested Schedule

###### Semester 1 (15 credit hours)

COM-101	Composition I	3
ECE-101	Introduction to Early Childhood	3
ECE-105	Health, Safety and Nutrition	3
PSY-101	Introduction to Psychology	3
	Social and Behavioral Sciences Elective	3

###### Semester 2 (18 credit hours)

COM-102	Composition II	3
ECE-109	Child, Family and Community	3
ECE-202	Growth and Development/Young Child	3
ECE-205	Curriculum-Early Childhood Programs	3

ECE-107	Infant and Toddler Development	3
OR		
EDU-105	Classroom Management	3
PSY-104	Life-Span Developmental Psychology	3
<b>Semester 3 (13 credit hours)</b>		
COM-103	Speech Fundamentals	3
EDU-103	Observation/Clinical Experience	3
EDU-111	Intro to the Exceptional Child	3
___	Physical and Life Sciences Elective	4
<b>Semester 4 (15 credit hours)</b>		
ECE-201	Math, Science and Social Studies	3
EDU-104	Intro. to the Foundations of Reading	3
EDU-110	Technology for Educators	3
MTH-102	Mathematics for Paraprofessionals	3
OR		
MTH-121	Math for Teachers I	3
ECE-233	ECE Practicum	2
OR		
ECE-243	Infant/Toddler Practicum	2
ECE-237	ECE Practicum Seminar	1
OR		
ECE-247	Infant/Toddler Practicum Seminar	1

## Before and After School Care, Certificate

### Certificate—27 credit hours

#### Curriculum Code 1474

This program provides knowledge including the legal requirements for administering and running a before and after school program.

#### Required General Education Courses

##### 3 credit hours as follows:

COM-101	Composition I	3
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COM-101: This course is a prerequisite for ECE-101. It is assumed that if the student has taken COM-101 previously the student will take ECE-101 during semester one.

#### Required Career Courses

##### 24 credit hours as follows:

ECE-101	Introduction to Early Childhood	3
ECE-105	Health, Safety and Nutrition	3
ECE-109	Child, Family and Community	3
ECE-201	Math, Science and Social Studies	3
ECE-202	Growth and Development/Young Child	3
ECE-203	Administration of EC Programs	3
EDU-103	Observation/Clinical Experience	3
EDU-105	Classroom Management	3

#### Suggested Schedule

##### Semester 1 (15 credit hours)

COM-101	Composition I	3
ECE-105	Health, Safety and Nutrition	3
ECE-109	Child, Family and Community	3

EDU-103	Observation/Clinical Experience	3
EDU-105	Classroom Management	3
<b>Semester 2 (12 credit hours)</b>		
ECE-101	Introduction to Early Childhood	3
ECE-201	Math, Science and Social Studies	3
ECE-202	Growth and Development/Young Child	3
ECE-203	Administration of EC Programs	3

## Early Childhood Educator Level 2, Certificate

### Certificate—18 credit hours

#### Curriculum Code 1475

This program prepares students to work with children ages three to eight at the most basic level. All students must have a high school diploma or GED. Students will develop the basic skills and theoretical practice to work in a variety of educational settings in schools, families and communities with children from age three through eight years old.

#### Required General Education Course

##### 3 credit hours as follows:

COM-101	Composition I	3
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#### Required Career Courses

##### 15 credit hours as follows:

ECE-101	Introduction to Early Childhood	3
ECE-105	Health, Safety and Nutrition	3
ECE-109	Child, Family and Community	3
ECE-202	Growth and Development/Young Child	3
EDU-205	Literature for Children/Young Adults	3

#### Note:

Students who successfully complete the coursework for this certificate will be eligible to apply for IL ECE Credential-Level 2. See [ilgateways.com/en/credentials](http://ilgateways.com/en/credentials).

#### Suggested Schedule

##### Semester 1 (9 credit hours)

COM-101	Composition I	3
ECE-105	Health, Safety and Nutrition	3
ECE-109	Child, Family and Community	3

##### Semester 2 (9 credit hours)

ECE-101	Introduction to Early Childhood	3
ECE-202	Growth and Development/Young Child	3
ECE-205	Curriculum-Early Childhood Programs	3

## Early Childhood Educator Level 3, Certificate

### Certificate—27 credit hours

#### Curriculum Code 1476

This program prepares students for a career in early childhood education with children ages three to eight years old. It provides opportunities for students to build on the skills established in the Early Childhood Educator Level 2 certificate and to develop the additional necessary skills and theoretical practice to work in a variety of educational settings in schools, families, and communities from ages three to eight years old.

**Required General Education Courses****9 credit hours as follows:**

COM-101	Composition I	3
MTH-102	Mathematics for Paraprofessionals	3
OR		
MTH-121	Math for Teachers I	3
PSY or SOC-__	PSY or SOC 100-level Course	3

(COM-101: This course is a prerequisite for ECE-101. It is assumed that if the student has taken COM-101 previously the student will take ECE-101 during semester one.)  
(Note: Students who wish to pursue the Early Childhood Educator AAS degree should take PSY-101 or PSY-104)

**Required Career Courses****18 credit hours as follows:**

ECE-101	Introduction to Early Childhood	3
ECE-105	Health, Safety and Nutrition	3
ECE-109	Child, Family and Community	3
ECE-202	Growth and Development/Young Child	3
EDU-103	Observation/Clinical Experience	3
EDU-111	Intro to the Exceptional Child	3

**Note:**

Students who successfully complete the coursework for this certificate will be eligible to apply for IL ECE Credential- Level 3. See [ilgateways.com/en/credentials](http://ilgateways.com/en/credentials).

**Suggested Schedule****Semester 1 (12 credit hours)**

COM-101	Composition I	3
ECE-101	Introduction to Early Childhood	3
ECE-105	Health, Safety and Nutrition	3
PSY or SOC-__	PSY or SOC 100-level Course	3

(Note: Students who wish to pursue the Early Childhood Educator AAS degree should take PSY-101 or PSY-104)

**Semester 2 (9 credit hours)**

ECE-109	Child, Family and Community	3
ECE-202	Growth and Development/Young Child	3

MTH-102	Mathematics for Paraprofessionals	3
OR		

MTH-121	Math for Teachers I	3
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**Semester 3 (6 credit hours)**

EDU-103	Observation/Clinical Experience	3
EDU-111	Intro to the Exceptional Child	3

**Infant/Toddler Level 2, Certificate****Certificate—21 credit hours****Curriculum Code 1472**

The program prepares the student to work with infants and toddlers at the most basic level. All students must have a high school diploma or GED.

**Required General Education Course****3 credit hours as follows:**

COM-101	Composition I	3
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**Required Career Courses****18 credit hours as follows:**

ECE-101	Introduction to Early Childhood	3
ECE-105	Health, Safety and Nutrition	3
ECE-107	Infant and Toddler Development	3
ECE-109	Child, Family and Community	3
ECE-202	Growth and Development/Young Child	3
EDU-205	Literature for Children/Young Adults	3

**Note:**

Students who successfully complete the coursework for this certificate will be eligible to apply for IL Infant/Toddler Credential - Level 2. See [ilgateways.com/en/credentials](http://ilgateways.com/en/credentials).

**Suggested Schedule****Semester 1 (12 credit hours)**

COM-101	Composition I	3
ECE-101	Introduction to Early Childhood	3
ECE-105	Health, Safety and Nutrition	3
ECE-107	Infant and Toddler Development	3

**Semester 2 (9 credit hours)**

ECE-109	Child, Family and Community	3
ECE-202	Growth and Development/Young Child	3
ECE-205	Curriculum-Early Childhood Programs	3

**Infant/Toddler Level 3, Certificate****Certificate—33 credit hours****Curriculum Code 1473**

This program prepares students for a career in early childhood education in the infant and toddlers field. It provides opportunities for students to build on the skills established in the Infant/Toddler Level 2 Certificate and to develop the additional necessary skills and theoretical practice to work in a variety of educational settings in schools, families, and communities from birth to age 4.

**Required General Education Courses****9 credit hours as follows:**

COM-101	Composition I	3
MTH-102	Mathematics for Paraprofessionals	3
OR		
MTH-121	Math for Teachers I	3

  

PSY or SOC-__	PSY or SOC 100-level Course	3
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(COM-101: This course is a prerequisite for ECE-101. It is assumed that if the student has taken COM-101 previously the student will take ECE-101 during semester one.)

(Note: Students who wish to pursue the Early Childhood Educator AAS degree should take PSY-101 or PSY-104.)

**Required Career Courses**

**24 credit hours as follows:**

ECE-101	Introduction to Early Childhood	3
ECE-105	Health, Safety and Nutrition	3
ECE-107	Infant and Toddler Development	3
ECE-109	Child, Family and Community	3
ECE-202	Growth and Development/Young Child	3
ECE-205	Curriculum-Early Childhood Programs	3
EDU-103	Observation/Clinical Experience	3
EDU-111	Intro to the Exceptional Child	3

**Other Requirements**

One professional contribution in any area within the last five years – can be done in the ECE-107 Infant and Toddler Development.

**Note:**

Students who successfully complete the coursework for this certificate will be eligible to apply for IL Infant/Toddler Credential - Level 3. See [ilgateways.com/en/credentials](http://ilgateways.com/en/credentials).

**Suggested Schedule****Semester 1 (12 credit hours)**

COM-101	Composition I	3
ECE-101	Introduction to Early Childhood	3
ECE-105	Health, Safety and Nutrition	3
PSY or	PSY or SOC 100-level Course	3
SOC-__		

(Note: Students who wish to pursue the Early Childhood Educator AAS degree should take PSY-101 or PSY-104)

**Semester 2 (15 credit hours)**

ECE-107	Infant and Toddler Development	3
ECE-109	Child, Family and Community	3
ECE-202	Growth and Development/Young Child	3
ECE-205	Curriculum-Early Childhood Programs	3
MTH-102	Mathematics for Paraprofessionals	3
OR		
MTH-121	Math for Teachers I	3

**Semester 3 (6 credit hours)**

EDU-103	Observation/Clinical Experience	3
EDU-111	Intro to the Exceptional Child	3

**Paraprofessional Educator, A.A.S.****A.A.S. Degree—62 credit hours****Curriculum Code 1470**

This program prepares students for a career as a paraprofessional educator (teacher's aide) in regular and special education classes in elementary and secondary schools and in social service agencies. Moraine Valley's program provides students with a strong foundation for a career in education through classroom work and observation in the field. Employment of paraprofessionals is expected to grow.

**Required General Education Courses****19 credit hours as follows:**

COM-101	Composition I	3
COM-103	Speech Fundamentals	3

PSY-101	Introduction to Psychology	3
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**Select 3 credit hours from Social/Behavioral Sciences:**

ANT, ECO, GEO, HIS, PSC, PSY, SOC, SSC

**Select 3 credit hours from Humanities/Fine Arts:**

ARB, ART, FRE, HUM, LIT, MUS, PHI, SPA, THE

Recommended that students choose a Non-Western or Third World Culture course

**Select 4 credit hours from Physical and Life Sciences with Lab**

BIO, CHM, EAS, GEL, NAT, PHS, PHY

**Required Career Courses****28 credit hours as follows:**

EDU-100	Introduction to Education	3
EDU-102	Intro for Paraprofessional Educator	3
EDU-103	Observation/Clinical Experience	3
EDU-104	Intro. to the Foundations of Reading	3
EDU-110	Technology for Educators	3
EDU-111	Intro to the Exceptional Child	3

EDU-205	Literature for Children/Young Adults	3
OR		
LIT-205	Literature for Children/Young Adults	3

MTH-102	Mathematics for Paraprofessionals	3
OR		
MTH-121	Math for Teachers I	3

PSY-104	Life-Span Developmental Psychology	3
PSY-215	Educational Psychology	3

**A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

**Electives****Select 15 credit hours from the following:**

ART-110	Art Appreciation	3
ECE-101	Introduction to Early Childhood	3
ECE-105	Health, Safety and Nutrition	3
OR		
PEH-171	A Healthy Lifestyle and You	3
COM-102	Composition II	3
CRJ-107	Juvenile Delinquency & Procedures	3
EDU-105	Classroom Management	3
EDU-233	Paraprofessional Educator Internship	3
EDU-237	Paraprofessional Educator Seminar	1

IMS-100	Personal Computer Basics	1
MTH-122	Math for Teachers II	3
MUS-107	Music Appreciation	3
PEH-181	Fundamentals of Rhythrical Movement	2
PSY-205	Abnormal Psychology	3
SOC-102	Marriage & Family	3
___-___	Foreign Language Sequence	4-8
___-___	Lab Science Elective	4

(Can use Science Elective to complete sequence)

(Note: EDU-105 is recommended)

#### **Suggested Schedule**

##### **Semester 1 (15 credit hours)**

COM-101	Composition I	3
EDU-102	Intro for Paraprofessional Educator	3
EDU-104	Intro. to the Foundations of Reading	3
PSY-104	Life-Span Developmental Psychology	3
___-___	Elective	3

(Note: Elective recommended is EDU-105 Classroom Management)

##### **Semester 2 (16 credit hours)**

COM-103	Speech Fundamentals	3
EDU-100	Introduction to Education	3
EDU-103	Observation/Clinical Experience	3
EDU-110	Technology for Educators	3
EDU-111	Intro to the Exceptional Child	3
MTH-102	Mathematics for Paraprofessionals	3
OR		
MTH-121	Math for Teachers I	3

##### **Semester 3 (16 credit hours)**

EDU-205	Literature for Children/Young Adults	3
OR		
LIT-205	Literature for Children/Young Adults	3
PSY-101	Introduction to Psychology	3
___-___	Elective	3
___-___	Humanities and Fine Arts Elective	3
___-___	Lab Science Elective	4

(Note: Recommended students choose a Non-Western or Third World Culture course)

##### **Semester 4 (15 credit hours)**

PSY-215	Educational Psychology	3
___-___	Social and Behavioral Sciences Elective	3
___-___	Elective	3
___-___	Elective	3
___-___	Elective	3

#### **AAT in Secondary Mathematics**

##### **A.A.T. Degree—62 credit hours**

*Curriculum Code 1480*

*New students are currently not being admitted.*

#### **AAT in Secondary Science**

##### **A.A.T. Degree—62 credit hours**

*Curriculum Code 1481*

*New students are currently not being admitted.*

#### **AAT in Special Education**

##### **A.A.T. Degree—63 credit hours**

*Curriculum Code 1482*

*New students are currently not being admitted.*

#### **Paraprofessional Educator, Certificate**

##### **Certificate—31 credit hours**

*Curriculum Code 1270*

*New students are currently not being admitted.*

#### **Electronic/Computer Controls Tech**

*This program consists of one degree and two certificates.*

#### **Electronic/Computer Controls Tech, A.A.S.**

##### **A.A.S. Degree—60 credit hours**

*Curriculum Code 1281*

This program prepares students for entry-level positions as an electronic and computer control technician found in manufacturing, chemical plants, process control environments, packaging and automated warehouse environments. Electrical, electronic, industrial, PC, and PLC controls will be examined. Lab exercises simulate real-world problems that technicians confront on the job daily. Employment for electronic and computer technicians is expected to grow. New technologies and increased computer use will continue to stimulate the demand for such workers.

#### **Required General Education Courses**

##### **15 credit hours as follows:**

COM-101	Composition I	3
COM-103	Speech Fundamentals	3
MTH-133	Math for Industry	2

**MTH-133: A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

**Select 4 credit hours from Physical and Life Sciences:**

BIO, CHM, EAS, GEL, NAT, PHS, PHY

**Select 3 credit hours from Humanities and Fine Arts or Social/Behavioral Sciences:**

ANT, ARB, ART, ECO, FRE, GEO, HIS, HUM, LIT, MUS, PHI, PSC, PSY, SOC, SSC, SPA, THE

#### Required Career Courses

##### 40 credit hours as follows:

ELT-101	Electricity and Electronics	3
ELT-102	Digital Logic/Solid State Devices	3
ELT-112	Computers for Industry	1
ELT-201	Industrial Controls	3
ELT-202	Advanced Industrial Controls	3
ELT-211	Introduction to PLCs	3
ELT-222	Advanced PLCs	3
IMM-101	Mechanical Systems I	3
IMM-120	Fluid Power I: Basic Circuits	3
IMM-220	Fluid Power II: Intermediate System	3
LAN-102	Voice and Data Cabling	3
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
LAN-121	Network Essentials	3

#### Electives

##### Select 5 credit hours from the following:

ELT, HAC, IMM, IST, LAN, MDT, MIS, WLD

#### Suggested Schedule

##### Semester 1 (15 credit hours)

COM-101	Composition I	3
ELT-101	Electricity and Electronics	3
ELT-112	Computers for Industry	1
IMM-101	Mechanical Systems I	3
LAN-102	Voice and Data Cabling	3
MTH-133	Math for Industry	2

##### Semester 2 (16 credit hours)

COM-103	Speech Fundamentals	3
ELT-102	Digital Logic/Solid State Devices	3
ELT-201	Industrial Controls	3
LAN-121	Network Essentials	3
___-___	Physical and Life Sciences Elective	4

##### Semester 3 (15 credit hours)

ELT-202	Advanced Industrial Controls	3
ELT-211	Introduction to PLCs	3
IMM-120	Fluid Power I: Basic Circuits	3
LAN-111	IT Essentials - A+	3
___-___	Humanities and Fine Arts Elective	3

OR

___-___	Social and Behavioral Sciences Elective	3
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##### Semester 4 (14 credit hours)

ELT-222	Advanced PLCs	3
IMM-220	Fluid Power II: Intermediate System	3
LAN-112	Managing IT - A+	3
___-___	Career Electives	5

## Electronic Controls Technician, Certificate

#### Certificate—42 credit hours

Curriculum Code 1417

This program prepares students for entry-level positions working with controls found in process control environments. Industrial, electronic, PC, and PLC controls will be examined.

#### Required Career Courses

##### 42 credit hours as follows:

ELT-101	Electricity and Electronics	3
ELT-102	Digital Logic/Solid State Devices	3
ELT-112	Computers for Industry	1
ELT-201	Industrial Controls	3
ELT-202	Advanced Industrial Controls	3
ELT-211	Introduction to PLCs	3
ELT-222	Advanced PLCs	3
IMM-101	Mechanical Systems I	3
IMM-120	Fluid Power I: Basic Circuits	3
IMM-220	Fluid Power II: Intermediate System	3
LAN-102	Voice and Data Cabling	3
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
LAN-121	Network Essentials	3
MTH-133	Math for Industry	2

#### Suggested Schedule

##### Semester 1 (12 credit hours)

ELT-101	Electricity and Electronics	3
ELT-112	Computers for Industry	1
IMM-101	Mechanical Systems I	3
LAN-102	Voice and Data Cabling	3

##### Semester 2 (9 credit hours)

ELT-102	Digital Logic/Solid State Devices	3
ELT-201	Industrial Controls	3
LAN-121	Network Essentials	3

##### Semester 3 (12 credit hours)

ELT-202	Advanced Industrial Controls	3
ELT-211	Introduction to PLCs	3
IMM-120	Fluid Power I: Basic Circuits	3
LAN-111	IT Essentials - A+	3

##### Semester 4 (9 credit hours)

ELT-222	Advanced PLCs	3
IMM-220	Fluid Power II: Intermediate System	3
LAN-112	Managing IT - A+	3

## Electronics Technician, Certificate

#### Certificate—18 credit hours

Curriculum Code 1282

This program prepares students for entry-level positions in electronics. These courses represent the required core courses for students pursuing an A.A.S. degree in Computer/Electronic Controls Tech, and Computer and Local Area Network Technician.

#### Required Career Courses

##### 18 credit hours as follows:

ELT-101	Electricity and Electronics	3
ELT-102	Digital Logic/Solid State Devices	3
ELT-112	Computers for Industry	1

LAN-102	Voice and Data Cabling	3
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
MTH-133	Math for Industry	2

#### Suggested Schedule

##### Semester 1 (9 credit hours)

ELT-101	Electricity and Electronics	3
ELT-112	Computers for Industry	1
LAN-111	IT Essentials - A+	3
MTH-133	Math for Industry	2

##### Semester 2 (9 credit hours)

ELT-102	Digital Logic/Solid State Devices	3
LAN-102	Voice and Data Cabling	3
LAN-112	Managing IT - A+	3

## Emergency Management

*This program consists of one certificate.*

### Emergency Management, Certificate

#### Certificate—16 credit hours

##### Curriculum Code 1386

This program provides a strategic interdisciplinary foundation of public safety and business theoretical concepts in emergency preparedness, coupled with adaptable real world application and identifiable best practices. This program promotes a versatile approach by building an educational base of knowledge, professional development through structured learning, and essential responsibilities of emergency planning. Upon successful completion, participants will be capable of maintaining operational readiness.

#### Required Career Courses

##### 16 credit hours as follows:

CRJ-110	Introduction to Homeland Security	3
CRJ-111	Homeland Security Incident Command	3
CRJ-113	Emergency Preparedness & Response	3
CRJ-114	Public Safety Leadership	3
CRJ-201	Police in American Society	3
LAN-103	Security Awareness	1

#### Suggested Schedule

##### Semester 1 (7 credit hours)

CRJ-110	Introduction to Homeland Security	3
CRJ-111	Homeland Security Incident Command	3
LAN-103	Security Awareness	1

##### Semester 2 (9 credit hours)

CRJ-113	Emergency Preparedness & Response	3
CRJ-114	Public Safety Leadership	3
CRJ-201	Police in American Society	3

## Emergency Medical Services

*This program consists of one degree and one certificate.*

### Emergency Medical Services, A.A.S.

#### A.A.S. Degree—62 credit hours

##### Curriculum Code 1332

This program is designed for students intending to go into the public or private sector as EMT-Paramedics. Individual lives often depend on quick reaction and competent care of paramedics. Incidents as varied as auto accidents, heart attacks, slips and falls, childbirth, and gunshot wounds all require immediate medical attention. EMT-Paramedics provide these vital services as they care for and transport the sick and injured to a medical facility. The EMT-Paramedic provides the most extensive pre-hospital care, which includes administration of medications orally and intravenously, endotracheal intubation, and defibrillations of patients in lethal arrhythmias. The EMT-Paramedic is employed in a number of industries, including the private ambulance service, municipal fire department or facility responses on helicopters and fixed wing transport vehicles. The EMT-Paramedic may also take the National Registry Examination for Paramedics, which will permit a graduate flexibility when seeking employment opportunities.

The EMT-Paramedic certificate program is held at Advocate Christ Medical Center. Application to the program is made to The Center for Prehospital Care at Advocate Christ Medical Center.

#### Required General Education Courses

##### 19 credit hours:

COM-101	Composition I	3
COM-103	Speech Fundamentals	3
MTH-109	Math for Allied Health	2
OR		
BIO-115	Anatomy and Physiology	5
AND		
BIO-180	Human Anatomy & Physiology I	4
BIO-181	Human Anatomy & Physiology II	4

Take MTH-109 or higher: **A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

#### Select 3 credit hours from Humanities and Fine Arts:

ARB, ART, FRE, HUM, LIT, MUS, PHI, SPA, THE

#### Select 3 credit hours from Social/Behavioral Sciences:

ANT, ECO, GEO, HIS, PSC, PSY, SOC, SSC

**Required Career Courses****38 credit hours as follows:**

EMS-102	EMT-Paramedic I	9
EMS-103	EMT-Paramedic II	8
EMS-104	EMT-Paramedic III	8
EMS-233	EMT-Paramedic-Internship	5
EMS-237	EMT-Paramedic-Seminar	5
IMS-101	Introduction to Computer Systems	3

(Note: Take IMS-101 or higher.)

(Note: The above required career courses with the exception of IMS-101 are completed at Advocate Christ Medical Center as a requirement of the Emergency Medical Services (EMT-P, Paramedic) Certificate. Application to the Paramedic program is made to the Center for Prehospital Care at Advocate Christ Medical Center.)

**Elective Courses****Select 5 credit hours from the following:**

ADC-230	Special Topics in Addiction Studies	1
EMS-230	Special Topics in EMS	5
MRT-110	Medical Terminology	3
PEH-170	First Aid	3

(Note: In addition, any course that fulfills the general education requirement for an A.A. degree can be taken as an elective. See the Transfer Programs (p. 39) section in the catalog for more information.)

**Suggested Schedule****Semester 1 (15 credit hours)**

COM-101	Composition I	3
EMS-102	EMT-Paramedic I	9
___-___	Humanities and Fine Arts Elective	3

**Semester 2 (13 credit hours)**

EMS-103	EMT-Paramedic II	8
MTH-109	Math for Allied Health	2
___-___	Social and Behavioral Sciences Elective	3

(Note: Take MTH-109 or higher.)

**Semester 3 (16 credit hours)**

BIO-115	Anatomy and Physiology	5
EMS-104	EMT-Paramedic III	8
IMS-101	Introduction to Computer Systems	3

(Note: Take BIO-115 or BIO-180 and BIO-181)

**Semester 4 (18 credit hours)**

COM-103	Speech Fundamentals	3
EMS-233	EMT-Paramedic-Internship	5
EMS-237	EMT-Paramedic-Seminar	5
___-___	Electives	5

**Emergency Medical Services (EMT-P, Paramedic), Certificate****Certificate—35 credit hours***Curriculum Code 1320*

This program is for those who want to go into the public or private sector as paramedics. It can also be an alternative career path for those presently in the fire science field.

**This certificate program is held at Advocate Christ**

**Medical Center.** Application to the program is made to The Center for Prehospital Care at Advocate Christ Medical Center.

Employment of EMTs is expected to grow much faster than the average, and competition for jobs will be keen in fire, police and rescue squad departments due to attractive pay, benefits and job security.

**Admission Requirements**

In addition to the standard college entrance requirements, students applying for admission to this program must possess a current Illinois Emergency Medical Technician License.

**Required Career Courses****35 credit hours as follows:**

EMS-102	EMT-Paramedic I	9
EMS-103	EMT-Paramedic II	8
EMS-104	EMT-Paramedic III	8
EMS-233	EMT-Paramedic-Internship	5
EMS-237	EMT-Paramedic-Seminar	5

**Suggested Schedule****Semester 1 - Fall (17 credit hours)**

EMS-102	EMT-Paramedic I	9
EMS-103	EMT-Paramedic II	8

**Semester 2 - Spring (18 credit hours)**

EMS-104	EMT-Paramedic III	8
EMS-233	EMT-Paramedic-Internship	5
EMS-237	EMT-Paramedic-Seminar	5

**Fire Service Management*****This program consists of one degree.*****Fire Service Management, A.A.S.****A.A.S. Degree—62 credit hours***Curriculum Code 1262*

This program prepares the student for company officer and higher positions within the fire service through immersive courses and numerous scenarios. Firefighters can earn State Fire Marshal certifications as a Company Officer or Advanced Company Officer.

**Required General Education Courses****21 credit hours as follows:**

COM-101	Composition I	3
COM-103	Speech Fundamentals	3
MTH-109	Math for Allied Health	2

Take MTH-109 or higher: **A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or

- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

**Select 6 credit hours from Social/Behavioral Sciences:**

ANT, ECO, GEO, HIS, PSC, PSY, SOC, SSC

**Select 4 credit hours from Physical and Life Sciences:**

BIO, CHM, EAS, GEL, NAT, PHS, PHY

**Select 3 credit hours from Humanities and Fine Arts:**

ARB, ART, FRE, HUM, LIT, MUS, PHI, SPA, THE

**Required Career Courses**

**33 credit hours as follows:**

FIS-117	Incident Safety Officer	3
FIS-140	Company Fire Officer	6
FIS-141	Company Fire Officer Seminar	6
FIS-150	Advanced Fire Officer	6
FIS-151	Advanced Fire Officer Seminar	6
FIS-201	Fire Service Instructor I	3
FIS-202	Fire Service Instructor II	3

**Electives**

**Select 8 credit hours from the following:**

EMS-101	Emergency Medical Technician	8
FIS-110	Hazardous Materials Awareness	1
FIS-111	Hazardous Materials Incident	1
FIS-113	Technical Rescue Awareness	1
FIS-114	Fire Investigation	3
FIS-118	Health and Safety Officer	3
FIS-119	Water Rescue Operations	2
FIS-120	Ice Rescue Technician	1
FIS-203	Fire Apparatus Engineer	3
FIS-204	Hazardous Materials Operations	3
FIS-206	Vehicle Rescue Operations	3
FIS-212	Fire Inspector I	3
FIS-213	Public Fire and Life Safety Educator	3
FIS-214	Fire Prevention Officer I (Module C)	3
FIS-222	Advanced Technician Firefighter	2
FIS-223	Hazardous Materials Technician A	2
FIS-224	Hazardous Materials Technician B	2
FIS-225	Blue Card Incident Command	4
FIS-226	NIMS: Basic	3
FIS-227	NIMS: Advanced	3
FIS-228	Rope Operations	2
FIS-230	Fire Investigation Module A	3
FIS-231	Fire Investigation Module B	3
FIS-232	Fire Investigation Module C	3

**Suggested Schedule**

**Semester 1 (15 credit hours)**

COM-101	Composition I	3
___ - ___	Physical and Life Sciences Elective	4
___ - ___	Program Electives	8

**Semester 2 (14 credit hours)**

COM-103	Speech Fundamentals	3
MTH-109	Math for Allied Health	2

___ - ___	Humanities and Fine Arts Elective	3
___ - ___	Social and Behavioral Sciences Elective	3
___ - ___	Social and Behavioral Sciences Elective	3

(Note: Take MTH-109 or higher.)

**Semester 3 (15 credit hours)**

FIS-140	Company Fire Officer	6
FIS-141	Company Fire Officer Seminar	6
FIS-201	Fire Service Instructor I	3

**Semester 4 (18 credit hours)**

FIS-117	Incident Safety Officer	3
FIS-150	Advanced Fire Officer	6
FIS-151	Advanced Fire Officer Seminar	6
FIS-202	Fire Service Instructor II	3

**Fire Service Operations**

**This program consists of one degree.**

**Fire Service Operations, A.A.S.**

**A.A.S. Degree—62 credit hours**

**Curriculum Code 1331**

This program is designed to help students gain the entry level job skills needed for careers in the fire service.

Students will cover all the topics and hands-on skills required for certification as a Basic Operations Firefighter within the State of Illinois. Students will also complete a mandatory internship which will allow them to be rostered members of a local fire department.

**Required General Education Courses**

**21 credit hours as follows:**

COM-101	Composition I	3
COM-103	Speech Fundamentals	3
MTH-109	Math for Allied Health	2

Take MTH-109 or higher: **A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

**Select 6 credit hours from Social/Behavioral Sciences:**

ANT, ECO, GEO, HIS, PSC, PSY, SOC, SSC

**Select 4 credit hours from Math or Physical and Life Sciences:**

BIO, CHM, EAS, GEL, MTH, NAT, PHS, PHY

**Select 3 credit hours from Humanities and Fine Arts:**

ARB, ART, FRE, HUM, LIT, MUS, PHI, SPA, THE

**Required Career Courses****32 credit hours as follows:**

EMS-101	Emergency Medical Technician	8
FIS-113	Technical Rescue Awareness	1
FIS-204	Hazardous Materials Operations	3
FIS-215	Fire Service Academy I	3
FIS-216	Fire Service Academy II	3
FIS-217	Fire Service Academy III	3
FIS-218	Fire Service Academy IV	3
FIS-219	Fire Service Academy V	3
FIS-220	Fire Service Seminar	1
FIS-221	Fire Service Internship	2
PEH-____	PEH-105, 108, 138, or 140	2

**Career Elective Courses****Select 9 credit hours from the following:**

FIS-101	Principles of Fire Science	3
FIS-104	Fire Protection Systems	3
FIS-105	Industrial Fire Protection	3
FIS-106	Fire Suppression Apparatus & Equip	3
FIS-112	Building Construct. for Fire Safety	3
FIS-114	Fire Investigation	3
FIS-222	Advanced Technician Firefighter	2
FIS-223	Hazardous Materials Technician A	2
FIS-224	Hazardous Materials Technician B	2
FIS-225	Blue Card Incident Command	4
FIS-226	NIMS: Basic	3
FIS-227	NIMS: Advanced	3
FIS-228	Rope Operations	2
FIS-230	Fire Investigation Module A	3
FIS-231	Fire Investigation Module B	3
FIS-232	Fire Investigation Module C	3

**Suggested Schedule****Semester 1 (17 credit hours)**

COM-101	Composition I	3
EMS-101	Emergency Medical Technician	8
MTH-109	Math for Allied Health	2
PEH-____	PEH-105, 108, 138, or 140	1
____-____	Social and Behavioral Sciences Elective	3

(Note: Take MTH-109 or higher.)

**Semester 2 (14 credit hours)**

COM-103	Speech Fundamentals	3
PEH-____	PEH-105, 108, 138, or 140	1
____-____	Science/Math Elective	4
____-____	Social and Behavioral Sciences Elective	3
____-____	Career Elective	3

**Semester 3 (19 credit hours)**

FIS-113	Technical Rescue Awareness	1
FIS-204	Hazardous Materials Operations	3
FIS-215	Fire Service Academy I	3
FIS-216	Fire Service Academy II	3
FIS-217	Fire Service Academy III	3
FIS-218	Fire Service Academy IV	3
FIS-219	Fire Service Academy V	3

**Semester 4 (12 credit hours)**

FIS-220	Fire Service Seminar	1
FIS-221	Fire Service Internship	2
____-____	Career Elective	3

____-____	Career Elective	3
____-____	Humanities and Fine Arts Elective	3

**Fitness Trainer*****This program consists of one certificate.*****Fitness Trainer, Certificate****Certificate—30 credit hours****Curriculum Code 1279**

This program is designed for students who desire to integrate education of exercise science methodologies with practical training experience leading to national certification and a career in fitness. This program prepares students to pass national certifying exams and gain entry-level employment in the fitness field. The program coursework emphasizes the analysis of human movement (muscular/skeletal), theoretical applications and methodologies of physical activity. As Americans have become more conscious of their health by being proactive through fitness, the need of fitness trainers has dramatically increased. People need a trusted professional to assess their fitness level, assist with setting goals, design an appropriate fitness program, and motivate them to complete the program and achieve their goals.

**Required Career Courses****27 credit hours as follows:**

PEH-160	Fundamentals of Human Movement	3
PEH-161	Fitness Methodology	4
PEH-162	Fitness Testing	3
PEH-163	Fitness Programming	3
PEH-164	Exercise for Special Populations	3
PEH-165	Fitness Business Skills & Promotion	3
PEH-172	Nutrition for Today	3
PEH-175	Small Group Fitness Training	2
REC-101	Rec Therapy and Sport Management	3

**Electives****Select 3 credit hours from the following:**

BIO-115	Anatomy and Physiology	5
IMS-115	Microsoft Office I	3
PEH-120	Introduction to Body/Mind Fitness	1
PEH-122	Yoga Basics and Beyond	1
PEH-138	Cardiovascular Conditioning	1
PEH-140	Weight Training	1
PEH-170	First Aid	3
PEH-171	A Healthy Lifestyle and You	3
REC-124	Sport/Recreation Facility Management	3

**Suggested Schedule****Semester 1 (13 credit hours)**

PEH-160	Fundamentals of Human Movement	3
PEH-161	Fitness Methodology	4
PEH-162	Fitness Testing	3
REC-101	Rec Therapy and Sport Management	3

<b>Semester 2 (11 credit hours)</b>		
PEH-163	Fitness Programming	3
PEH-164	Exercise for Special Populations	3
PEH-165	Fitness Business Skills & Promotion	3
PEH-175	Small Group Fitness Training	2
<b>Semester 3 (6 credit hours)</b>		
PEH-172	Nutrition for Today	3
_____	Elective	3

## Geographic Information Systems

**This program consists of one degree and three certificates.**

### Geographic Information Systems, A.A.S.

#### A.A.S. Degree—62 credit hours

Curriculum Code 1371

This program is the study of geographic information systems. GIS integrates computer software and hardware to collect, organize, analyze, and present geographically referenced data. GIS systems extend into many different fields and are prevalent in both local and federal government agencies, at home and abroad. The application of GIS can be found in areas as diverse as disease control, economics, marketing, environmental study, utility management, and crime control and prevention. This career degree program is associated with the GIS Technician, GIS Specialist and GIS Professional certificates.

#### Required General Education Courses

##### 16 credit hours as follows:

COM-101	Composition I	3
COM-103	Speech Fundamentals	3

##### Select 7 credit hours from Math or Physical and Life Sciences:

BIO, CHM, EAS, GEL, MTH\*\*, NAT, PHS, PHY

**\*\*A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

##### Select 3 credit hours from Social/Behavioral Sciences or Humanities and Fine Arts:

ANT, ARB, ART, ECO, FRE, GEO, HIS, HUM, LIT, MUS, PHI, PSC, PSY, SOC, SPA, SSC, THE

#### Required Career Courses

##### 40 credit hours as follows:

GIS-101	Orientation to GIS Careers	1
GIS-110	Fundamentals of Geospatial Science	3
GIS-112	Intro to Geospatial Technology	3
GIS-114	Data Acquisition & Management	3
GIS-120	Spatial Analysis	3
GIS-122	Cartographic Design	3
GIS-124	Introduction to Remote Sensing	3
GIS-126	GIS Capstone Project	3
OR		
GIS-128	Internship in Geospatial Technology	3
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
MDT-145	Intro to Computer Aided Drafting	3
MIS-123	Database Design	3
MIS-210	Project Management	3
MIS-292	SQL/Database Applications	3

#### Career Electives

##### 6 credit hours as follows:

Select 6 credit hours from BUS, CRJ, GEO, IMS, LAN, MDT, MIS

#### Suggested Schedule

##### Semester 1 (16 credit hours)

COM-101	Composition I	3
GIS-101	Orientation to GIS Careers	1
GIS-110	Fundamentals of Geospatial Science	3
GIS-112	Intro to Geospatial Technology	3
GIS-114	Data Acquisition & Management	3
_____	Science/Math Elective	3

##### Semester 2 (16 credit hours)

GIS-120	Spatial Analysis	3
GIS-122	Cartographic Design	3
GIS-124	Introduction to Remote Sensing	3
_____	Science/Math Elective	4
GIS-126	GIS Capstone Project	3
OR		
GIS-128	Internship in Geospatial Technology	3

##### Semester 3 (15 credit hours)

COM-103	Speech Fundamentals	3
LAN-111	IT Essentials - A+	3
MDT-145	Intro to Computer Aided Drafting	3
MIS-123	Database Design	3
_____	Career Elective	3

##### Semester 4 (15 credit hours)

LAN-112	Managing IT - A+	3
MIS-210	Project Management	3
MIS-292	SQL/Database Applications	3
_____	Career Elective	3
_____	Humanities and Fine Arts Elective	3
OR		
_____	Social and Behavioral Sciences Elective	3

## GIS Technician, Certificate

#### Certificate—10 credit hours

**Curriculum Code 1373**

This program is the study of geographic information systems. GIS integrates computer software and hardware to collect, organize, analyze, and present geographically referenced data. GIS systems extend into many different fields and are prevalent in both local and federal government agencies, at home and abroad. The application of GIS can be found in areas as diverse as disease control, economics, marketing, environmental study, utility management, and crime control and prevention. This short-term certificate is associated to the GIS Specialist and GIS Professional certificates, and the Geographic Information System A.A.S. degree.

**Required Career Courses****10 credit hours as follows:**

GIS-101	Orientation to GIS Careers	1
GIS-110	Fundamentals of Geospatial Science	3
GIS-112	Intro to Geospatial Technology	3
GIS-114	Data Acquisition & Management	3

**Suggested Schedule****Semester 1 (10 credit hours)**

GIS-101	Orientation to GIS Careers	1
GIS-110	Fundamentals of Geospatial Science	3
GIS-112	Intro to Geospatial Technology	3
GIS-114	Data Acquisition & Management	3

**GIS Specialist, Certificate****Certificate—12 credit hours****Curriculum Code 1372**

This program is the study of geographic information systems. GIS integrates computer software and hardware to collect, organize, analyze, and present geographically referenced data. GIS systems extend into many different fields and are prevalent in both local and federal government agencies, at home and abroad. The application of GIS can be found in areas as diverse as disease control, economics, marketing, environmental study, utility management, and crime control and prevention. This short-term certificate is associated to the GIS Technician and Professional certificates, and the Geographic Information System A.A.S. degree.

**Required Career Courses****12 credit hours as follows:**

GIS-120	Spatial Analysis	3
GIS-122	Cartographic Design	3
GIS-124	Introduction to Remote Sensing	3
GIS-126	GIS Capstone Project	3
OR		
GIS-128	Internship in Geospatial Technology	3

**Suggested Schedule****Semester 1 (12 credit hours)**

GIS-120	Spatial Analysis	3
GIS-122	Cartographic Design	3

GIS-124	Introduction to Remote Sensing	3
GIS-126	GIS Capstone Project	3
OR		
GIS-128	Internship in Geospatial Technology	3

**GIS Professional, Certificate****Certificate—25 credit hours****Curriculum Code 1379**

This program is the study of geographic information systems. GIS integrates computer software and hardware to collect, organize, analyze, and present geographically referenced data. GIS systems extend into many different fields and are prevalent in both local and federal government agencies, at home and abroad. The application of GIS can be found in areas as diverse as disease control, economics, marketing, environmental study, utility management, and crime control and prevention. This certificate program is associated with the GIS Technician and GIS Specialist certificates, and the Geographic Information System A.A.S. degree.

**Required Career Courses****25 credit hours as follows:**

GIS-101	Orientation to GIS Careers	1
GIS-110	Fundamentals of Geospatial Science	3
GIS-112	Intro to Geospatial Technology	3
GIS-114	Data Acquisition & Management	3
GIS-120	Spatial Analysis	3
GIS-122	Cartographic Design	3
GIS-124	Introduction to Remote Sensing	3
GIS-126	GIS Capstone Project	3
GIS-128	Internship in Geospatial Technology	3

**Suggested Schedule****Semester 1 (10 credit hours)**

GIS-101	Orientation to GIS Careers	1
GIS-110	Fundamentals of Geospatial Science	3
GIS-112	Intro to Geospatial Technology	3
GIS-114	Data Acquisition & Management	3

**Semester 2 (15 credit hours)**

GIS-120	Spatial Analysis	3
GIS-122	Cartographic Design	3
GIS-124	Introduction to Remote Sensing	3
GIS-126	GIS Capstone Project	3
GIS-128	Internship in Geospatial Technology	3

**Gerontology**

***This program consists of one certificate.***

**Gerontology, Certificate****Certificate—16 credit hours****Curriculum Code 1336**

***New students are currently not being admitted.***

## Health Information Technology

**This program consists of one degree and two active certificates.**

### Health Information Technology, A.A.S.

#### A.A.S. Degree—72 credit hours

Curriculum Code 1244

This program prepares students for a career that places them right where the expanding arena of health care meets the cutting edge of technology. Health information technicians ensure the quality of medical records by verifying their completeness, accuracy and proper entry into computer systems. They also may use computer applications to assemble and analyze patient data for the purpose of improving patient care or controlling costs. Health information technicians (RHITs) often specialize in coding diagnoses and procedures in patient records for reimbursement and research. RHITs may serve as cancer registrars, compiling and maintaining data on cancer patients. The Health Information Technology Program is a two-year Associate of Applied Science degree program that integrates medical science, diagnosis and procedure coding systems, computer technology, and health care management.

#### Accreditation

The Health Information Technology curriculum meets the basic requirements prescribed by the American Health Information Management Association. The program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).

#### Outcome Measures

AHIMA Health Information Technology Exam Results 2017

1. Pass rate for first-time test takers was 95%
2. Overall exam score results were 11% above national average

#### Admission Requirements

See Admission to Health Science Programs in the Admission and Registration section. Applicants not selected for one starting class are individually responsible for reactivating and updating their application file for subsequent starting classes. Re-applicants must complete a new application form and submit it to the Admissions Office during the applicable time period.

**Transfer Students**—Placement is considered on an individual basis.

#### Certification

Upon completion of the program, graduates will be eligible to write the national registration exam given by the American Health Information Management Association. Successfully completing this exam allows the graduate to earn the credential RHIT (registered health information technician).

#### Program Requirements

- Responsible for transportation to and from clinical affiliates
- Responsible for submitting a completed history and physical form signed by a physician as well as a drug screen prior to their first clinical rotation
- Responsible for completing a criminal background check and drug screening prior to a clinical assignment being made.
- Provide proof of comprehensive health and accident insurance
- Responsible for all program fees
- Students must earn a minimum grade of "C" (2.0) in each required career course (theory and clinical) as well as in the required math and biology courses
- Any career course over four years old must be repeated
- Students must complete the program within four years of receiving credit in MRT-111 (formal beginning of HIT program)

#### Program Calendar

Students are encouraged to complete the general education courses prior to program enrollment. The required medical terminology, biology and mathematics courses must be completed within five years of program admission. Exceptions may be granted on an individual basis upon approval of the program coordinator. Required career courses must be taken in sequence.

#### Required General Education Courses

##### 16 credit hours minimum as follows:

BIO-115	Anatomy and Physiology	5
COM-101	Composition I	3
COM-103	Speech Fundamentals	3
MTH-109	Math for Allied Health	2
PSY-201	Industrial/Organizational Psychology	3

(Note: May take BIO-180 and BIO-181 instead of BIO-115)

Take MTH-109 or higher: **A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

#### Required Career Courses

**56 credit hours as follows:**

IMS-115	Microsoft Office I	3
MRT-110	Medical Terminology	3
MRT-111	Health Information Management	3
MRT-114	Health Care Computer Applications	3
MRT-115	HIT Professional Practice I	4
MRT-119	Insurance Reimbursement Procedures	2
MRT-125	Pathophysiology and Pharmacology	3
MRT-131	CPT/HCPCS Level II	4
MRT-132	ICD-10-CM	4
MRT-133	ICD-10-PCS	4
MRT-140	Cancer Registry	2
MRT-141	Coding Computer Applications	2
MRT-211	Health Statistics and Data Analysis	3
MRT-212	Medical Reimbursement Systems	3
MRT-213	Supervisory Techniques	3
MRT-215	HIT Professional Practice II	3
MRT-216	HIT Professional Practice III	5
MRT-218	Quality Management	2

**Suggested Schedule****Semester 1 Summer (11 credit hours)**

BIO-115	Anatomy and Physiology	5
IMS-115	Microsoft Office I	3
MRT-110	Medical Terminology	3

(Note: May take BIO-180 and BIO-181 instead of BIO-115)

**Semester 2 Fall (15 credit hours)**

COM-101	Composition I	3
MRT-111	Health Information Management	3
MRT-125	Pathophysiology and Pharmacology	3
MRT-131	CPT/HCPCS Level II	4
MTH-109	Math for Allied Health	2

(Note: Take MTH-109 or higher)

**Semester 3 Spring (13 credit hours)**

MRT-114	Health Care Computer Applications	3
MRT-119	Insurance Reimbursement Procedures	2
MRT-132	ICD-10-CM	4
MRT-133	ICD-10-PCS	4

**Semester 4 Summer (7 credit hours)**

COM-103	Speech Fundamentals	3
MRT-115	HIT Professional Practice I	4

**Semester 5 Fall (13 credit hours)**

MRT-140	Cancer Registry	2
MRT-141	Coding Computer Applications	2
MRT-211	Health Statistics and Data Analysis	3
MRT-212	Medical Reimbursement Systems	3
MRT-215	HIT Professional Practice II	3

**Semester 6 Spring (13 credit hours)**

MRT-213	Supervisory Techniques	3
MRT-216	HIT Professional Practice III	5
MRT-218	Quality Management	2
PSY-201	Industrial/Organizational Psychology	3

**Coding Specialist, Certificate****Certificate—41 credit hours***Curriculum Code 1431*

This program prepares students to become medical coding specialists and gain a working knowledge of diagnosis and procedure coding systems. Medical coders classify diagnoses and procedures into numerical format to be used for reimbursement, data quality and medical research. Coders develop a broad base of knowledge to enable the application of coding theory using medical terminology, disease process, surgical procedures, and pharmacology principles. Graduates may seek employment as coders, insurance billers, and reimbursement specialists. After completion of the certificate, students may choose to continue their education and earn the A.A.S. in Health Information Technology. All coding certificate courses are applicable toward the A.A.S. degree.

**Program Approval**

The Coding Specialist curriculum meets the basic requirements prescribed by the American Health Information Management Association and has been approved as a comprehensive coding program by the Professional Certificate Approval Program Council. Graduates may elect to take a credentialing exam which is administered by the American Health Information Management Association to become a Certified Coding Specialist (CCS) or Certified Coding Specialist—Physician Based (CCS-P).

**Graduation Requirements:**

- Students must earn a minimum grade of "C" in each required career course (theory and clinical)
- Any career course over four years old must be repeated
- Students must complete program within four years of receiving credit in MRT-111 (formal beginning of Coding Specialist program)
- MRT-110 and BIO-115 (or BIO-180 and BIO-181) must have been passed with a minimum grade of "C" within the last five years

**Required Career Courses****41 credit hours as follows:**

BIO-115	Anatomy and Physiology	5
IMS-115	Microsoft Office I	3
MRT-110	Medical Terminology	3
MRT-111	Health Information Management	3
MRT-113	Coding Professional Practice	4
MRT-119	Insurance Reimbursement Procedures	2
MRT-123	EHR and Practice Management	3
MRT-125	Pathophysiology and Pharmacology	3
MRT-131	CPT/HCPCS Level II	4
MRT-132	ICD-10-CM	4
MRT-133	ICD-10-PCS	4
MRT-212	Medical Reimbursement Systems	3

**Suggested Schedule****Semester 1 (6 credit hours)**

IMS-115	Microsoft Office I	3
MRT-110	Medical Terminology	3

<b>Semester 2 (12 credit hours)</b>		
BIO-115 Anatomy and Physiology	5	
MRT-111 Health Information Management	3	
MRT-131 CPT/HCPCS Level II	4	
<b>Semester 3 (9 credit hours)</b>		
MRT-119 Insurance Reimbursement Procedures	2	
MRT-125 Pathophysiology and Pharmacology	3	
MRT-132 ICD-10-CM	4	
<b>Semester 4 (10 credit hours)</b>		
MRT-123 EHR and Practice Management	3	
MRT-133 ICD-10-PCS	4	
MRT-212 Medical Reimbursement Systems	3	
<b>Semester 5 (4 credit hours)</b>		
MRT-113 Coding Professional Practice	4	

## Medical Billing, Certificate

### Certificate—15 credit hours

#### Curriculum Code 1440

This program prepares students for employment as medical billers, patient account representatives, and data entry specialists. Graduates will acquire a general knowledge of the healthcare field with a focus on being able to understand medical diagnoses and procedures to bill accurately and ethically.

Graduates can be employed by physician's offices and clinics, medical group practices, managed care companies, insurance companies and other health care providers.

A medical biller's job responsibilities can include healthcare billing, processing, adjusting and resubmitting of claims, adherence to current healthcare industry regulations and policies, and compliance with insurance procedures and allotted benefit coverage.

After completion of this certificate, students may choose to continue their education and earn a Coding Specialist Certificate.

#### Graduation Requirements:

- Students must earn a minimum grade of "C" in each required career course (theory and clinical)
- MRT-110 must have been passed with a minimum grade of "C" within the last five years

#### Required Career Courses

<b>15 credit hours as follows:</b>		
IMS-115 Microsoft Office I	3	
MRT-110 Medical Terminology	3	
MRT-119 Insurance Reimbursement Procedures	2	
MRT-122 Coding for Medical Billing	4	
MRT-123 EHR and Practice Management	3	

#### Suggested Schedule

##### Semester 1 (6 credit hours)

IMS-115 Microsoft Office I	3	
MRT-110 Medical Terminology	3	

<b>Semester 2 (9 credit hours)</b>		
MRT-119 Insurance Reimbursement Procedures	2	
MRT-122 Coding for Medical Billing	4	
MRT-123 EHR and Practice Management	3	

## Medical Transcription, Certificate

### Certificate—20 credit hours

#### Curriculum Code 1432

**New students are currently not being admitted.**

## Heating and Air Conditioning

**This program consists of five certificates.**

## Heating and Air Conditioning, Certificate

### Certificate—33 credit hours

#### Curriculum Code 1215

This program prepares students for entry-level positions in the heating and air conditioning service and installation industry.

The employment potential for heating, air conditioning and refrigeration technicians is favorable and expected to increase as fast as the average. Concern for the environment and energy conservation should continue to prompt the development of new energy-saving heating and air-conditioning systems. Also, the demand for maintenance and service work should increase as businesses and homeowners strive to keep systems operating at peak efficiency.

#### Required General Education Courses

##### 6 credit hours as follows:

COM-101 Composition I	3
MTH-120 General Education Mathematics	3

(Note: Take MTH-120 or higher)

#### Required Career Courses

##### 23 credit hours as follows:

HAC-105 Air Conditioning Theory	3
HAC-111 Introduction to Controls	4
HAC-115 Basic Service Procedures	4
HAC-150 Advanced Control Systems	4
HAC-154 Installation and Service	4
HAC-158 Introduction to Heating	4

#### Electives

##### Select 4 credit hours from the following:

HAC-140 Sheet Metal Hand Forming	4
HAC-165 Sustainable Energy Practices	4
HAC-180 Electronic Controls	4
HAC-233 Seminar	1
HAC-237 Internship	3

#### Suggested Schedule

<b>Semester 1 (14 credit hours)</b>	
HAC-105	Air Conditioning Theory
HAC-111	Introduction to Controls
HAC-115	Basic Service Procedures
MTH-120	General Education Mathematics

(Note: Take MTH-120 or higher)

<b>Semester 2 (19 credit hours)</b>	
COM-101	Composition I
HAC-150	Advanced Control Systems
HAC-154	Installation and Service
HAC-158	Introduction to Heating
—	Electives

## **Advanced Air Conditioning Technician, Certificate**

### **Certificate—16 credit hours**

#### *Curriculum Code 1454*

This program prepares the student for an advanced career as a heating, air conditioning, and refrigeration mechanic, installer, or service representative.

#### **Required Career Courses**

##### **16 credit hours as follows:**

HAC-150	Advanced Control Systems	4
HAC-154	Installation and Service	4
HAC-158	Introduction to Heating	4
HAC-180	Electronic Controls	4

#### **Suggested Schedule**

##### **Semester 1 (8 credit hours)**

HAC-150	Advanced Control Systems	4
HAC-154	Installation and Service	4

##### **Semester 2 (8 credit hours)**

HAC-158	Introduction to Heating	4
HAC-180	Electronic Controls	4

## **Basic Air Conditioning Technician, Certificate**

### **Certificate—19 credit hours**

#### *Curriculum Code 1454*

This program prepares the student for a beginning career as a heating, air conditioning, and refrigeration mechanic, installer, or service representative.

#### **Required Career Courses**

##### **19 credit hours as follows:**

HAC-105	Air Conditioning Theory	3
HAC-111	Introduction to Controls	4
HAC-115	Basic Service Procedures	4
HAC-140	Sheet Metal Hand Forming	4
HAC-154	Installation and Service	4

#### **Suggested Schedule**

##### **Semester 1 (11 credit hours)**

HAC-105	Air Conditioning Theory	3
HAC-111	Introduction to Controls	4
HAC-115	Basic Service Procedures	4

##### **Semester 2 (8 credit hours)**

HAC-140	Sheet Metal Hand Forming	4
HAC-154	Installation and Service	4

## **Electrical Troubleshooting, Certificate**

### **Certificate—15 credit hours**

#### *Curriculum Code 1452*

This program prepares the student for a career as a heating, air conditioning, and refrigeration mechanic or service representative.

#### **Required Career Courses**

##### **15 credit hours as follows:**

HAC-105	Air Conditioning Theory	3
HAC-111	Introduction to Controls	4
HAC-150	Advanced Control Systems	4
HAC-180	Electronic Controls	4

#### **Suggested Schedule**

##### **Semester 1 (7 credit hours)**

HAC-105	Air Conditioning Theory	3
HAC-111	Introduction to Controls	4

##### **Semester 2 (8 credit hours)**

HAC-150	Advanced Control Systems	4
HAC-180	Electronic Controls	4

## **Commercial Systems Service Tech, Certificate**

### **Certificate—13 credit hours**

#### *Curriculum Code 1337*

This program combines both lecture and hands-on components for commercial heating, air conditioning, and refrigeration maintenance and installation training. The certificate will serve students who are currently in the field and can demonstrate advanced proficiency or those students who have completed the courses necessary for Advanced Air Conditioning Tech Certificate. The Commercial Systems courses deliver advanced content that is not appropriate for students who have not had the initial training on residential equipment. Students will be trained on commercial equipment and will use advanced digital controls like those found in large commercial buildings or multi-building campuses.

#### **Required Career Courses**

##### **13 credit hours as follows:**

HAC-250	Commercial Systems Operations	5
HAC-260	Chiller Plant Operations	4
HAC-270	Boiler Power Plant Operations	4

#### **Suggested Schedule**

##### **Semester 1 (13 credit hours)**

HAC-250	Commercial Systems Operations	5
HAC-260	Chiller Plant Operations	4
HAC-270	Boiler Power Plant Operations	4

## **Homeland Security**

***This program consists of one certificate.***

## Homeland Security, Certificate

### Certificate—17 credit hours

#### Curriculum Code 1361

This program serves students enrolled in the college's credit programs in Criminal Justice, Security and Loss Prevention, and Fire Service Management. It also provides access to non-degree seeking students from the public sector as well as elected and appointed officials seeking a general background in emergency management.

#### Required career courses

##### 17 credit hours as follows:

CRJ-101	Introduction to Criminal Justice	3
CRJ-110	Introduction to Homeland Security	3
CRJ-111	Homeland Security Incident Command	3
CRJ-112	Disaster & Blood Borne Hazards	1
FIS-101	Principles of Fire Science	3
FIS-110	Hazardous Materials Awareness	1
SLP-101	Introduction to Security	3

#### Suggested Schedule

##### Semester 1 (10 credit hours)

CRJ-101	Introduction to Criminal Justice	3
CRJ-110	Introduction to Homeland Security	3
CRJ-111	Homeland Security Incident Command	3
CRJ-112	Disaster & Blood Borne Hazards	1

##### Semester 2 (7 credit hours)

FIS-101	Principles of Fire Science	3
FIS-110	Hazardous Materials Awareness	1
SLP-101	Introduction to Security	3

## Human Resources Management

**This program consists of one degree and one certificate.**

## Human Resources Management, A.A.S.

### A.A.S. Degree—62 credit hours

#### Curriculum Code 1412

This program is designed to prepare students for the operations, control, training, and development of personnel in the workplace. It examines the process of employee recruitment, selection and placement of individuals for appropriate areas of employment, equal opportunity, staffing, training, evaluations, maintaining the organization, and rewards. This program includes an internship/ seminar component.

According to the U.S. Department of Labor, the job market for human resources specialists and trainers is expected to grow much faster than average through the year 2018.

#### Required General Education Courses

##### 15 credit hours as follows:

BUS-120	Business Mathematics	3
OR		
MTH-120	General Education Mathematics	3

COM-101	Composition I	3
COM-103	Speech Fundamentals	3
ECO-101	Principles of Macro-Economics	3

(Note: MTH-120 recommended for transfer students.)

**A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

**Select 3 credit hours from Humanities and Fine Arts or Physical and Life Sciences:**

ARB, ART, FRE, HUM, LIT, MUS, PHI, SPA, THE or BIO, CHM, EAS, GEL, NAT, PHS, PHY

#### Required Career Courses

##### 44 credit hours as follows:

BUS-100	Introduction to Business	3
BUS-110	Legal Environment in Business	3
OR		
BUS-136	Business Law	3
BUS-135	Personal Finance	2
BUS-142	Financial Accounting	4
BUS-143	Managerial Accounting	4
BUS-170	Introduction to Human Resources	3
BUS-215	Employee Training and Development	3
BUS-226	Business Ethics	3
BUS-231	Principles of Management	3
BUS-232	Human Resources Management	3
BUS-233	Internship	3
BUS-237	Seminar	1
IMS-115	Microsoft Office I	3
OSA-122	Microsoft Excel	3
OSA-230	Microsoft PowerPoint & Presentations	3

#### Electives

**Select 3 credit hours from any BUS course**

#### Suggested Schedule

##### Semester 1 (15 credit hours)

BUS-100	Introduction to Business	3
BUS-110	Legal Environment in Business	3
OR		
BUS-136	Business Law	3
BUS-120	Business Mathematics	3
OR		
MTH-120	General Education Mathematics	3
COM-101	Composition I	3

IMS-115	Microsoft Office I	3
(Note: MTH-120 recommended for transfer students)		

**Semester 2 (16 credit hours)**

BUS-142	Financial Accounting	4
BUS-170	Introduction to Human Resources	3
COM-103	Speech Fundamentals	3
ECO-101	Principles of Macro-Economics	3
OSA-122	Microsoft Excel	3

**Semester 3 (16 credit hours)**

BUS-143	Managerial Accounting	4
BUS-215	Employee Training and Development	3
BUS-231	Principles of Management	3
BUS-232	Human Resources Management	3
OSA-230	Microsoft PowerPoint & Presentations	3

**Semester 4 (15 credit hours)**

BUS-135	Personal Finance	2
BUS-226	Business Ethics	3
BUS-233	Internship	3
BUS-237	Seminar	1
BUS-__	BUS-	3
__-__	Humanities and Fine Arts or Physical and Life Sciences Elective	3

**Employee Training and Development, Certificate****Certificate—30 credit hours***Curriculum Code 1413*

This program prepares students for careers in human resources with an emphasis on training and development of staff. Students already employed are encouraged to take this program to update their skills and enhance promotion opportunities.

**Required Career Courses****24 credit hours as follows:**

BUS-100	Introduction to Business	3
BUS-170	Introduction to Human Resources	3
BUS-215	Employee Training and Development	3
BUS-226	Business Ethics	3
BUS-232	Human Resources Management	3
IMS-115	Microsoft Office I	3
OSA-122	Microsoft Excel	3
OSA-230	Microsoft PowerPoint & Presentations	3

**Electives****Select 6 credit hours from the following:**

BUS-134	International Business	3
BUS-231	Principles of Management	3
MIS-111	Internet Technologies	3
OSA-257	Microsoft Access	3
PSY-201	Industrial/Organizational Psychology	3

**Suggested Schedule****Semester 1 (9 credit hours)**

BUS-100	Introduction to Business	3
BUS-170	Introduction to Human Resources	3
IMS-115	Microsoft Office I	3

**Semester 2 (9 credit hours)**

BUS-215	Employee Training and Development	3
BUS-232	Human Resources Management	3
OSA-230	Microsoft PowerPoint & Presentations	3

**Semester 3 (12 credit hours)**

BUS-226	Business Ethics	3
OSA-122	Microsoft Excel	3
__-__	Elective	3
__-__	Elective	3

**Integrated Systems Technology**

***This program consists of one degree and seven certificates.***

**Integrated Systems Technology, A.A.S.****A.A.S. Degree—60 credit hours***Curriculum Code 1403*

This program prepares students for entry-level positions as electrical and mechanical technicians found in bakeries, manufacturing, chemical plants and material handling and automated warehouse environments. Workers in this field maintain, calibrate, and repair the electrical, mechanical, and electronic equipment found in today's industrial environments. This program involves cross-training in these areas of multiple, integrated systems.

**Required General Education Courses****15 credit hours as follows:**

COM-101	Composition I	3
COM-103	Speech Fundamentals	3
MTH-133	Math for Industry	2

**MTH-133: A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

**Select 4 credit hours from Physical and Life Sciences:**

BIO, CHM, EAS, GEL, NAT, PHY, PHS

**Select 3 credit hours from Humanities and Fine Arts or Social/Behavioral Sciences:**

ANT, ARB, ART, ECO, FRE, GEO, HIS, HUM, LIT, MUS, PHI, PSC, PSY, SOC, SSC, SPA, THE

**Required Career Courses****42 credit hours as follows:**

ELT-101	Electricity and Electronics	3
ELT-102	Digital Logic/Solid State Devices	3
ELT-112	Computers for Industry	1

ELT-201	Industrial Controls	3
ELT-202	Advanced Industrial Controls	3
ELT-211	Introduction to PLCs	3
ELT-222	Advanced PLCs	3
IMM-101	Mechanical Systems I	3
IMM-103	Machinery Moving and Set-Up	2
IMM-107	Mechanical Systems II	3
IMM-120	Fluid Power I: Basic Circuits	3
IMM-220	Fluid Power II: Intermediate System	3
IST-109	Prints for Industry	3
WLD-111	Basic Arc/Gas Welding I	3
WLD-113	Basic Metallurgy and Materials	3

**Electives****Select 3 credit hours from the following career area electives:**

ELT, HAC, IMM, LAN, MDT, MIS, WLD

**Suggested Schedule****Semester 1 (15 credit hours)**

COM-101	Composition I	3
ELT-101	Electricity and Electronics	3
ELT-112	Computers for Industry	1
IMM-101	Mechanical Systems I	3
MTH-133	Math for Industry	2
— - —	Social and Behavioral Sciences Elective	3
OR		
— - —	Humanities and Fine Arts Elective	3

**Semester 2 (14 credit hours)**

COM-103	Speech Fundamentals	3
ELT-102	Digital Logic/Solid State Devices	3
ELT-201	Industrial Controls	3
IMM-103	Machinery Moving and Set-Up	2
IMM-107	Mechanical Systems II	3

**Semester 3 (16 credit hours)**

ELT-202	Advanced Industrial Controls	3
ELT-211	Introduction to PLCs	3
IMM-120	Fluid Power I: Basic Circuits	3
WLD-111	Basic Arc/Gas Welding I	3
— - —	Physical and Life Sciences Elective	4

**Semester 4 (15 credit hours)**

ELT-222	Advanced PLCs	3
IMM-220	Fluid Power II: Intermediate System	3
IST-109	Prints for Industry	3
WLD-113	Basic Metallurgy and Materials	3
— - —	Career Elective	3

**Manufacturing Intern, Certificate****Certificate—15 credit hours****Curriculum Code 1404**

This program prepares students to be interviewed for internships in manufacturing. The students gain an opportunity to explore industrial maintenance as a career.

**Required Career Courses****15 credit hours as follows:**

ELT-101	Electricity and Electronics	3
ELT-112	Computers for Industry	1

IMM-101	Mechanical Systems I	3
IMM-120	Fluid Power I: Basic Circuits	3

IST-109	Prints for Industry	3
OR		

MDT-145	Intro to Computer Aided Drafting	3
MTH-133	Math for Industry	2

**Suggested Schedule****Semester 1 (15 credit hours)**

ELT-101	Electricity and Electronics	3
ELT-112	Computers for Industry	1
IMM-101	Mechanical Systems I	3
IMM-120	Fluid Power I: Basic Circuits	3
IST-109	Prints for Industry	3
OR		
MDT-145	Intro to Computer Aided Drafting	3
MTH-133	Math for Industry	2

**Plant Engineering Mechanic, Certificate****Certificate—32 credit hours****Curriculum Code 1405**

This program integrates short, stackable certificates into a medium size certificate aligned with the postsecondary educational needs of manufacturing and transportation and logistics employers. The certificate introduces topics covering the installation, configuration, and maintenance of automated handling equipment.

**Required Career Courses****32 credit hours as follows:**

ELT-101	Electricity and Electronics	3
ELT-201	Industrial Controls	3
ELT-202	Advanced Industrial Controls	3
ELT-211	Introduction to PLCs	3
IMM-101	Mechanical Systems I	3
IMM-103	Machinery Moving and Set-Up	2
IMM-107	Mechanical Systems II	3
IMM-120	Fluid Power I: Basic Circuits	3
IMM-220	Fluid Power II: Intermediate System	3
WLD-111	Basic Arc/Gas Welding I	3
WLD-112	Basic Arc/Gas Welding II	3

**Suggested Schedule****Semester 1 (12 credit hours)**

ELT-101	Electricity and Electronics	3
IMM-101	Mechanical Systems I	3
IMM-107	Mechanical Systems II	3
IMM-120	Fluid Power I: Basic Circuits	3

(Take ELT-101 and IMM-101: 1st 8 weeks)

(Take IMM-107 and IMM-120: 2nd 8 weeks)

**Semester 2 (12 credit hours)**

ELT-201	Industrial Controls	3
ELT-202	Advanced Industrial Controls	3
IMM-220	Fluid Power II: Intermediate System	3

WLD-111	Basic Arc/Gas Welding I	3
(Take ELT-201 and WLD-111: 1st 8 weeks)		
(Take ELT-202 and IMM-220: 2nd 8 weeks)		
<b>Semester 3 (8 credit hours)</b>		
ELT-211	Introduction to PLCs	3
IMM-103	Machinery Moving and Set-Up	2
WLD-112	Basic Arc/Gas Welding II	3

## Fluid Power Technician, Certificate

### Certificate—8 credit hours

#### Curriculum Code 1367

This program prepares students to upgrade their skills to work in career fields of industrial maintenance. This certificate prepares students for entry-level positions in industrial maintenance and fluid power. Industrial maintenance personnel often work with hydraulic and pneumatic systems and controls.

#### Required Career Courses

##### 8 credit hours as follows:

IMM-103	Machinery Moving and Set-Up	2
IMM-120	Fluid Power I: Basic Circuits	3
IMM-220	Fluid Power II: Intermediate System	3

#### Suggested Schedule

##### Semester 1 (3 credit hours)

IMM-120	Fluid Power I: Basic Circuits	3
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##### Semester 2 (5 credit hours)

IMM-103	Machinery Moving and Set-Up	2
IMM-220	Fluid Power II: Intermediate System	3

## Industrial Controls Technician, Certificate

### Certificate—9 credit hours

#### Curriculum Code 1364

This program prepares students to work in career fields of industrial electrical maintenance. Students will receive training in electrical controls. Students will learn about industrial electrical controls. Jobs in industrial electrical controls can be found in such career fields as electrical and electronics installers and repairers.

#### Required Career Courses

##### 9 credit hours as follows:

ELT-101	Electricity and Electronics	3
ELT-201	Industrial Controls	3
ELT-202	Advanced Industrial Controls	3

#### Suggested Schedule

##### Semester 1 (3 credit hours)

ELT-101	Electricity and Electronics	3
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##### Semester 2 (6 credit hours)

ELT-201	Industrial Controls	3
ELT-202	Advanced Industrial Controls	3

## Industrial Maintenance Technician, Certificate

### Certificate—23 credit hours

#### Curriculum Code 1368

This program prepares students to work in career fields of industrial maintenance. Students will receive training in mechanical drive, fluid power, and electrical control systems. Students will learn about the basic concepts that support these systems, installation and troubleshooting.

#### Required Career Courses

##### 23 credit hours as follows:

ELT-101	Electricity and Electronics	3
ELT-201	Industrial Controls	3
ELT-202	Advanced Industrial Controls	3
IMM-101	Mechanical Systems I	3
IMM-103	Machinery Moving and Set-Up	2
IMM-107	Mechanical Systems II	3
IMM-120	Fluid Power I: Basic Circuits	3
IMM-220	Fluid Power II: Intermediate System	3

#### Suggested Schedule

##### Semester 1 (9 credit hours)

ELT-101	Electricity and Electronics	3
IMM-101	Mechanical Systems I	3
IMM-120	Fluid Power I: Basic Circuits	3

##### Semester 2 (9 credit hours)

ELT-201	Industrial Controls	3
IMM-107	Mechanical Systems II	3
IMM-220	Fluid Power II: Intermediate System	3

##### Semester 3 (5 credit hours)

ELT-202	Advanced Industrial Controls	3
IMM-103	Machinery Moving and Set-Up	2

## Mechanical Drive Technician, Certificate

### Certificate—8 credit hours

#### Curriculum Code 1366

This program prepares students to work in career fields of industrial maintenance mechanic. Students will receive training in mechanical drive systems using belts, chains and gears. Students will learn about drive systems installation and alignment. Jobs working with mechanical drive systems can be found in such career areas as industrial machinery mechanics.

#### Required Career Courses

##### 8 credit hours as follows:

IMM-101	Mechanical Systems I	3
IMM-103	Machinery Moving and Set-Up	2
IMM-107	Mechanical Systems II	3

#### Suggested Schedule

##### Semester 1 (3 credit hours)

IMM-101	Mechanical Systems I	3
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##### Semester 2 (5 credit hours)

IMM-103	Machinery Moving and Set-Up	2
IMM-107	Mechanical Systems II	3

## PLC Technician, Certificate

### Certificate—18 credit hours

#### Curriculum Code 1365

This program prepares students to work in career fields of automated industrial controls. Students will receive training in electrical controls and PLCs. Students will learn about industrial electrical controls and programmable logic controllers. Jobs in PLCs can be found in such career fields as electrical and electronics installers and repairers.

#### Required Career Courses

##### 18 credit hours as follows:

ELT-101	Electricity and Electronics	3
ELT-102	Digital Logic/Solid State Devices	3
ELT-201	Industrial Controls	3
ELT-202	Advanced Industrial Controls	3
ELT-211	Introduction to PLCs	3
ELT-222	Advanced PLCs	3

#### Suggested Schedule

##### Semester 1 (9 credit hours)

ELT-101	Electricity and Electronics	3
ELT-102	Digital Logic/Solid State Devices	3
ELT-201	Industrial Controls	3

##### Semester 2 (9 credit hours)

ELT-202	Advanced Industrial Controls	3
ELT-211	Introduction to PLCs	3
ELT-222	Advanced PLCs	3

## IT Security Specialist

*This program consists of one degree and two certificates.*

### IT Security Specialist, A.A.S.

#### A.A.S. Degree—63 credit hours

#### Curriculum Code 1420

This program is designed to provide a comprehensive program to develop a skilled workforce in the emerging field of information technology security. Managing information security programs consists of preserving information confidentiality and protection, risk management, data and system integrity, availability, authenticity, and utility. The program is based on information security concepts, principles, methods, techniques, practices, and procedures that guide today's IT security professionals. This program prepares graduates to become employed as IT security specialists, firewall and VPN specialists, and data assurance specialists. Additionally, the program concentrates on industry-specific requirements in the health care and financial areas, as well as other institutions that currently use electronic commerce.

The degree program is designed with an IT Security core curriculum combined with a set of fundamental IT courses.

In addition, the program requires the completion of a traditional group of general education courses.

#### Required General Education Courses

##### 15 credit hours as follows:

COM-101	Composition I	3
COM-103	Speech Fundamentals	3
BUS-120	Business Mathematics	3
OR		
MTH-120	General Education Mathematics	3

(Note: MTH-120 or higher. **A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

##### Select 3 credit hours from Physical and Life Sciences:

BIO, CHM, EAS, GEL, NAT, PHS, PHY

##### Select 3 credit hours from Social and Behavioral Sciences or Humanities and Fine Arts:

ANT, ARB, ART, ECO, FRE, GEO, HIS, HUM, LIT, MUS, PHI, PSC, PSY, SOC, SPA, SSC, THE

#### Required Career Courses

##### 48 credit hours as follows:

LAN-101	Orientation to IT Professions	1
LAN-103	Security Awareness	1
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
LAN-121	Network Essentials	3
LAN-122	Network Services	4
LAN-143	Digital Forensics	3
LAN-153	IT Security Essentials - Security+	3
LAN-163	Ethical Hacking	3
LAN-220	Linux Administration	3
LAN-221	Scripting and Security	3
LAN-230	Managing Windows Servers	3
LAN-233	Managing Database Services	3
LAN-243	Computer Forensics	3
LAN-246	Routing and Switching - CCNA	3
LAN-253	Network Security	3
LAN-273	Managing Information Security	3

#### Suggested Schedule

##### Semester 1 (17 credit hours)

COM-101	Composition I	3
LAN-101	Orientation to IT Professions	1
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
LAN-121	Network Essentials	3
LAN-122	Network Services	4

(Take LAN-111 and LAN-121: 1st 8 weeks.)

(Take LAN-112 and LAN-122: 2nd 8 weeks.)

**Semester 2 (16 credit hours)**

LAN-103	Security Awareness	1
LAN-143	Digital Forensics	3
LAN-220	Linux Administration	3
LAN-246	Routing and Switching - CCNA	3
___ - ___	Physical and Life Sciences Elective	3

MTH-120 General Education Mathematics

OR

BUS-120 Business Mathematics

(Note: BUS-120, MTH-120 or higher)

**Semester 3 (15 credit hours)**

COM-103	Speech Fundamentals	3
LAN-153	IT Security Essentials - Security+	3
LAN-163	Ethical Hacking	3
LAN-243	Computer Forensics	3
LAN-253	Network Security	3

(Take LAN-153: 1st 8 weeks)

(Take LAN-163: 2nd 8 weeks)

**Semester 4 (15 credit hours)**

LAN-221	Scripting and Security	3
LAN-230	Managing Windows Servers	3
LAN-233	Managing Database Services	3
LAN-273	Managing Information Security	3
___ - ___	Social and Behavioral Sciences Elective	3
OR		
___ - ___	Humanities and Fine Arts Elective	3

(Take LAN-273: 1st 8 weeks.)

## Network Security Associate, Certificate

### Certificate—21 credit hours

#### Curriculum Code 1360

This program provides students with entry-level skills for a profession in network security. Managing network security includes preserving information confidentiality, availability and integrity. Network security professionals are tasked with performing network risk assessments, implementing safeguards that protect data and system integrity, implementing and maintaining system authentication systems and perimeter protection systems. This program prepares graduates to become employed as network security technicians, network firewall technicians, VPN administrators and remote security communication support specialists.

#### Required Career Courses

##### 21 credit hours as follows:

LAN-101	Orientation to IT Professions	1
LAN-103	Security Awareness	1
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
LAN-121	Network Essentials	3

LAN-122	Network Services	4
LAN-153	IT Security Essentials - Security+	3
LAN-163	Ethical Hacking	3

#### Suggested Schedule

##### Semester 1 (7 credit hours)

LAN-101	Orientation to IT Professions	1
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3

##### Semester 2 (7 credit hours)

LAN-121	Network Essentials	3
LAN-122	Network Services	4

##### Semester 3 (7 credit hours)

LAN-103	Security Awareness	1
LAN-153	IT Security Essentials - Security+	3
LAN-163	Ethical Hacking	3

## Network Security Specialist, Certificate

### Certificate—36 credit hours

#### Curriculum Code 1424

This program is designed to provide a comprehensive program to develop a skilled workforce in the emerging field of information technology security. Managing information security programs consists of preserving information confidentiality and protection, risk management, data and system integrity, availability, authenticity, and utility. The program is based on information security concepts, principles, methods, techniques, practices, and procedures that guide today's IT security professionals. This program prepares graduates to become employed as IT security specialists, firewall and VPN specialists, and data assurance specialists. Additionally, the program concentrates on industry-specific requirements in the health care and financial areas, as well as other institutions that currently use electronic commerce.

The certificate is designed for professionals returning to upgrade skills or students who are interested in obtaining employment skills in IT security professions. The certificate can be completed as a student progresses through the degree program.

#### Required Career Courses

##### 36 credit hours as follows:

LAN-101	Orientation to IT Professions	1
LAN-103	Security Awareness	1
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
LAN-121	Network Essentials	3
LAN-122	Network Services	4
LAN-143	Digital Forensics	3
LAN-153	IT Security Essentials - Security+	3
LAN-163	Ethical Hacking	3
LAN-243	Computer Forensics	3
LAN-251	WLAN Design - CWNA	3
LAN-253	Network Security	3
LAN-273	Managing Information Security	3

**Suggested Schedule****Semester 1 (15 credit hours)**

LAN-101	Orientation to IT Professions	1
LAN-103	Security Awareness	1
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
LAN-121	Network Essentials	3
LAN-122	Network Services	4

**Semester 2 (12 credit hours)**

LAN-143	Digital Forensics	3
LAN-153	IT Security Essentials - Security+	3
LAN-163	Ethical Hacking	3
LAN-251	WLAN Design - CWNA	3

**Semester 3 (9 credit hours)**

LAN-243	Computer Forensics	3
LAN-253	Network Security	3
LAN-273	Managing Information Security	3

**Mammography Technology*****This program consists of one certificate.*****Mammography Technology, Certificate****Certificate—9 credit hours****Curriculum Code 1346**

This program is an advanced certificate that provides a complete educational experience for licensed radiologic technologists wishing to become a mammography technologist. The program provides each licensed radiologic technologist with opportunities to learn and to develop competence in patient care, communication skills, critical thinking, and technical skills that will permit the student to become a diagnostic mammography technologist. Integrated educational activities include lecture, laboratory activities, case studies, and hands-on clinical training.

**Required Career Courses****9 credit hours as follows:**

RAD-260	Breast Pathology	1
RAD-261	Principles and Procedures	3
RAD-262	Quality Assurance	2
RAD-263	Mammography Clinical Internship	3

**Suggested Schedule****Semester 1 (6 credit hours)**

RAD-260	Breast Pathology	1
RAD-261	Principles and Procedures	3
RAD-262	Quality Assurance	2

**Semester 2 (3 credit hours)**

RAD-263	Mammography Clinical Internship	3
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**Management Information Systems*****This program consists of one degree and 18 certificates.*****Management Information Systems, A.A.S.****A.A.S. Degree—64 credit hours****Curriculum Code 1206**

This program prepares students for pursuit of careers in information technology. Graduates qualify for information systems support staff positions such as applications trainers; technical support; software support; and database, web and programming applications trainees.

Students may specialize in information technology areas, including database, web, or applications concentrations. Students will use state-of-the-art technology to complete their coursework.

Students with work experience and advanced skills should contact the internship coordinator for assessment and course substitution information. Students without prerequisite skills are expected to take the necessary additional courses. An important feature of this program is the internship component where students seek on-the-job training in a professional setting. Students wishing to enroll in the internship should contact the internship coordinator prior to enrollment.

**Required General Education Courses****16 credit hours as follows:**

BUS-120	Business Mathematics	3
OR		
MTH-120	General Education Mathematics	3
COM-101	Composition I	3
COM-103	Speech Fundamentals	3

**A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

**Select 3 credit hours from Social/Behavioral Sciences or Humanities and Fine Arts:**

ANT, ARB, ART, ECO, FRE, GEO, HIS, HUM, LIT, MUS, PHI, PSC, PSY, SOC, SPA, SSC, THE

**Select 4 credit hours from Physical and Life Sciences:**

BIO, CHM, EAS, GEL, NAT, PHS, PHY

**Required Career Courses****21 credit hours as follows:**

IMS-101	Introduction to Computer Systems	3
OR		
IMS-115	Microsoft Office I	3

CSC-140	Introduction to Computer Science	3	<b>from the prior track):</b> (NOTE: Courses from each track can be pursued simultaneously.)
OR			
MIS-105	Programming Principles	3	
MIS-111	Internet Technologies	3	<b>Android Programming Track (6 credit hours)</b>
MIS-121	Networking for Business	3	MIS-142      Android Programming I      3
MIS-123	Database Design	3	MIS-176      Java Programming I      3
MIS-146	Operating Systems	3	<b>C# Programming Track (6 credit hours)</b>
MIS-295	Internship	3	MIS-154      C# Programming I      3
			MIS-254      C# Programming II      3
<b>Concentrations (Select One)</b>			
Students may select from Application Development, Database Management or Web Development concentrations			
<b>Application Development—27 credit hours as follows:</b>			
<b>Required Special Career Courses—9 credit hours as follows:</b>			
MIS-210	Project Management	3	CSC-140      Introduction to Computer Science      3
MIS-291	Systems Analysis and Design	3	OR
MIS-292	SQL/Database Applications	3	MIS-154      C# Programming I      3
<b>Choose one track (9 credit hours):</b>			
<b>Android Programmer Track (9 credit hours)</b>			
MIS-142	Android Programming I	3	MIS-160      C++ Programming      3
MIS-176	Java Programming I	3	OR
MIS-242	Android Programming II	3	MIS-176      Java Programming I      3
<b>C# Programmer Track (9 credit hours)</b>			
MIS-154	C# Programming I	3	<b>Java Programming Track (6 credit hours)</b>
MIS-254	C# Programming II	3	MIS-176      Java Programming I      3
MIS-285	ASP.NET Web Applications	3	MIS-276      Java Programming II      3
OR			<b>PHP Programming Track (6 credit hours)</b>
MIS-289	Advanced .NET Development	3	MIS-126      PHP Programming I      3
<b>iOS Programmer Track (9 credit hours)</b>			MIS-226      PHP Programming II      3
CSC-140	Introduction to Computer Science	3	<b>Note:</b> MIS-141 must be taken as an elective to pursue this track.
OR			<b>RPG Programming Track (6 credit hours)</b>
MIS-154	C# Programming I	3	MIS-120      RPG Programming I      3
OR			MIS-220      RPG Programming II      3
MIS-160	C++ Programming	3	<b>Visual Basic.NET Programmer Track (6 credit hours)</b>
OR			MIS-139      VB.NET Programming I      3
MIS-176	Java Programming I	3	MIS-239      VB.NET Programming II      3
MIS-124	iOS Programming I	3	<b>Web Client Scripting Track (6 credit hours)</b>
MIS-224	iOS Programming II	3	MIS-141      Website Development: HTML & CSS      3
<b>Java Programmer Track (9 credit hours)</b>			MIS-241      Adv. Website Dev: Javascript & jQuery      3
MIS-176	Java Programming I	3	<b>Web Design Track (6 credit hours)</b>
MIS-276	Java Programming II	3	OSA-125      Introduction to Website Design      3
MIS-283	Java Web Applications	3	OSA-135      Website Applications      3
OR			<b>Web Development Track (6 credit hours)</b>
MIS-286	Advanced Java Development	3	MIS-251      ColdFusion Programming      3
<b>Visual Basic.NET Programmer Track (9 credit hours)</b>			MIS-297      Website Design: WordPress      3
MIS-139	VB.NET Programming I	3	<b>Electives</b>
MIS-239	VB.NET Programming II	3	Select 3 credit hours that have not been selected above:
MIS-285	ASP.NET Web Applications	3	CSC-140      Introduction to Computer Science      3
OR			CSC-240      Advanced Computer Science      3
MIS-289	Advanced .NET Development	3	MIS-120      RPG Programming I      3
<b>Choose another track (6 credit hours not duplicating selections</b>			MIS-124      iOS Programming I      3
			MIS-126      PHP Programming I      3
			MIS-139      VB.NET Programming I      3
			MIS-141      Website Development: HTML & CSS      3
			MIS-142      Android Programming I      3
			MIS-154      C# Programming I      3

MIS-160	C++ Programming	3
MIS-176	Java Programming I	3
MIS-197	E-Commerce Development	3
MIS-199	Special Short Topics in Technology	1
MIS-200	Special Topics in Technology	3
MIS-224	iOS Programming II	3
MIS-226	PHP Programming II	3
MIS-241	Adv. Website Dev: Javascript & jQuery	3
MIS-242	Android Programming II	3
MIS-251	ColdFusion Programming	3
MIS-254	C# Programming II	3
MIS-259	Flash ActionScript	3
MIS-261	C++ Programming II	3
MIS-264	C++ Software Development	3
MIS-283	Java Web Applications	3
MIS-285	ASP.NET Web Applications	3
MIS-286	Advanced Java Development	3
MIS-289	Advanced .NET Development	3
MIS-294	Oracle Database Management	3
MIS-297	Website Design: WordPress	3
OSA-125	Introduction to Website Design	3
OSA-135	Website Applications	3
OSA-234	Adobe Illustrator	3
OSA-236	Adobe Photoshop	3

(Note: MIS-199 and MIS-200 can be repeated up to three times for credit as long as different topics are selected.)

(Note: Courses from each track can be pursued simultaneously.)

**Database Management—27 credit hours as follows:**

Required Special Career Courses—25 credit hours as follows:	
LAN-121 Network Essentials	3
LAN-122 Network Services	4
LAN-233 Managing Database Services	3
LAN-253 Network Security	3
MIS-210 Project Management	3
MIS-291 Systems Analysis and Design	3
MIS-292 SQL/Database Applications	3
MIS-294 Oracle Database Management	3

**Choose at least two credit hours (one course) from the following:**

BUS-107	Fundamentals of Accounting	2
LAN-263	Managing Network Security II	3
OSA-257	Microsoft Access	3

**Web Development—27 credit hours as follows:**

Required Special Career Courses—18 credit hours as follows:	
OSA-125 Introduction to Website Design	3
OR	
OSA-135 Website Applications	3
MIS-141 Website Development: HTML & CSS	3
MIS-241 Adv. Website Dev: Javascript & jQuery	3
MIS-292 SQL/Database Applications	3

(Note: OSA-125 is recommended for students pursuing the VB.NET or C# Programmer Track.)

(Note: OSA-135 is recommended for students pursuing the Java or Multimedia Programmer Track.)

**Choose 6 credit hours (one must be an MIS course) from:**

BUS-105	Small Business Management	4
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BUS-130	Principles of Marketing	3
BUS-131	Principles of Retailing	3
BUS-134	International Business	3
BUS-136	Business Law	3
BUS-200	Consumer Behavior	3
BUS-230	Advertising	3
BUS-231	Principles of Management	3
MIS-210	Project Management	3
MIS-291	Systems Analysis and Design	3

**Choose one track (9 credit hours):**

**C# Programmer Track (9 credit hours)**

MIS-154	C# Programming I	3
MIS-254	C# Programming II	3
MIS-285	ASP.NET Web Applications	3

**Java Programmer Track (9 credit hours)**

MIS-176	Java Programming I	3
MIS-276	Java Programming II	3
MIS-283	Java Web Applications	3

**Multimedia Programmer Track (9 credit hours)**

MIS-251	ColdFusion Programming	3
MIS-259	Flash ActionScript	3
MIS-297	Website Design: WordPress	3

**PHP Programmer Track (9 credit hours)**

MIS-126	PHP Programming I	3
MIS-226	PHP Programming II	3
MIS-297	Website Design: WordPress	3

**Visual Basic .NET Programmer Track (9 credit hours)**

MIS-139	VB.NET Programming I	3
MIS-239	VB.NET Programming II	3
MIS-285	ASP.NET Web Applications	3

**Suggested Schedule**

**Semester 1 (15 credit hours)**

COM-101	Composition I	3
BUS-120	Business Mathematics	3
OR		
MTH-120	General Education Mathematics	3
IMS-101	Introduction to Computer Systems	3
OR		
IMS-115	Microsoft Office I	3
CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3
MIS-111	Internet Technologies	3

**Semester 2 (16 credit hours)**

COM-103	Speech Fundamentals	3
MIS-123	Database Design	3
MIS-146	Operating Systems	3
MIS or BUS-__	Required Career Course	3
__-__	Physical and Life Sciences Elective	4

**Semester 3 (18 credit hours)**

MIS-121	Networking for Business	3
MIS or BUS-__	Required Career Course	3
MIS-__	Required Career Course	3
MIS-__	Required Career Course	3

MIS-__	Required Career Course	3	This program prepares students who are experienced programmers or software developers or have already completed the Programming Skills certificate (curriculum code 1382) with Android programming skills.
__-__	Humanities and Fine Arts Elective	3	
OR			
__-__	Social and Behavioral Sciences Elective	3	
<b>Semester 4 (15 credit hours)</b>			
MIS-295	Internship	3	
MIS-__	Required Career Course	3	
MIS-__	Required Career Course	3	
MIS-__	Required Career Course	3	
MIS-__	Required Career Course	3	
MIS-__	Required Career Course	3	
OR			
__-__	Elective Career Course	3	

## Android Developer, Certificate

### Certificate—18 credit hours

#### Curriculum Code 1347

This program prepares students with programming skills that will provide the background for entry-level or trainee positions or enhance an information technology professional's versatility and career advancement potential. Within this certificate's courses, students will gain hands-on experience programming for the user interface of Android, the mobile operating system developed by an alliance led by Google. Students will create applications for these mobile devices using a customized version of Java.

#### Required Career Courses

##### 18 credit hours as follows:

CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3
MIS-123	Database Design	3
MIS-142	Android Programming I	3
MIS-176	Java Programming I	3
MIS-242	Android Programming II	3
MIS-292	SQL/Database Applications	3

#### Suggested Schedule

##### Semester 1 (3 credit hours)

CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3

##### Semester 2 (3 credit hours)

MIS-123	Database Design	3
MIS-142	Android Programming I	3
MIS-176	Java Programming I	3

##### Semester 3 (6 credit hours)

MIS-176	Java Programming I	3
MIS-292	SQL/Database Applications	3

##### Semester 4 (6 credit hours)

MIS-142	Android Programming I	3
MIS-242	Android Programming II	3

## Android Programmer, Certificate

### Certificate—9 credit hours

#### Curriculum Code 1384

This program prepares students who are experienced programmers or software developers or have already completed the Programming Skills certificate (curriculum code 1382) with Android programming skills.

#### Required Career Courses

##### 9 credit hours as follows:

MIS-142	Android Programming I	3
MIS-176	Java Programming I	3
MIS-242	Android Programming II	3

#### Suggested Schedule

##### Semester 1 (3 credit hours)

MIS-176	Java Programming I	3
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##### Semester 2 (6 credit hours)

MIS-142	Android Programming I	3
MIS-242	Android Programming II	3

## Associate Database Administrator, Certificate

### Certificate—18 credit hours

#### Curriculum Code 1345

This program prepares students with database design and management skills, providing the background for entry-level or trainee positions or enhancing an information technology professional's versatility and career advancement potential. Coursework will emphasize database design principles, Structured Query Language, and database administration using a variety of popular database management systems.

#### Required Career Courses

##### 18 credit hours as follows:

CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3
MIS-123	Database Design	3
MIS-142	Android Programming I	3
MIS-176	Java Programming I	3
MIS-242	Android Programming II	3
MIS-292	SQL/Database Applications	3

#### Suggested Schedule

##### Semester 1 (6 credit hours)

CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3

##### Semester 2 (6 credit hours)

MIS-123	Database Design	3
MIS-291	Systems Analysis and Design	3
MIS-292	SQL/Database Applications	3

##### Semester 3 (6 credit hours)

MIS-294	Oracle Database Management	3
OSA-257	Microsoft Access	3

##### Semester 4 (6 credit hours)

MIS-291	Systems Analysis and Design	3
MIS-294	Oracle Database Management	3

## C# Programmer, Certificate

### Certificate—21 credit hours

#### Curriculum Code 1466

This program prepares students with programming skills that will, when combined with a degree, provide the background for entry-level or trainee positions or enhance an information technology professional's versatility and career advancement potential.

C# is a language similar to C++ and Java while utilizing a drag-and-drop development environment more commonly found in Visual Basic. The result is a tool that allows for the rapid development of desktop, PDA, data-driven web applications using state-of-the-art object-oriented techniques. Within this certificate's courses, you will learn the latest in software design and development methodologies while gaining hands-on experience with the latest versions of Visual C#.

#### Required Career Courses

##### 21 credit hours as follows:

CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3
MIS-123	Database Design	3
MIS-154	C# Programming I	3
MIS-254	C# Programming II	3
MIS-285	ASP.NET Web Applications	3
MIS-289	Advanced .NET Development	3
MIS-292	SQL/Database Applications	3

#### Suggested Schedule

##### Semester 1 (3 credit hours)

CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3

##### Semester 2 (6 credit hours)

MIS-123	Database Design	3
MIS-154	C# Programming I	3

##### Semester 3 (6 credit hours)

MIS-254	C# Programming II	3
MIS-292	SQL/Database Applications	3

##### Semester 4 (6 credit hours)

MIS-285	ASP.NET Web Applications	3
MIS-289	Advanced .NET Development	3

#### Database Administration Skills, Certificate

##### Certificate—12 credit hours

###### Curriculum Code 1381

This program prepares students with foundational skills in database design and administration or enhance an information technology professional's versatility and career advancement potential. Students in this certificate program will gain exposure to a variety of tools, including data modeling software as well as several widely used database management systems. The coursework maps to industry certification in database administration fundamentals.

#### Required Career Courses

##### 12 credit hours as follows:

IMS-115	Microsoft Office I	3
MIS-123	Database Design	3
MIS-292	SQL/Database Applications	3
OSA-257	Microsoft Access	3

#### Suggested Schedule

##### Semester 1 (6 credit hours)

IMS-115	Microsoft Office I	3
MIS-123	Database Design	3

##### Semester 2 (6 credit hours)

MIS-292	SQL/Database Applications	3
OSA-257	Microsoft Access	3

#### iOS Developer, Certificate

##### Certificate—18 credit hours

###### Curriculum Code 1343

This program prepares students with programming skills that will provide the background for entry-level or trainee positions or enhance an information technology professional's versatility and career advancement potential. Within this certificate's courses, students will gain hands-on experience programming for the user interface of iOS, Apple's mobile operating system. This operating system is based on the concept of direct manipulation using multi-touch gestures. Students will also learn how to program for specific interface control elements for this type of operating system.

#### Required Programming Skills

##### 6 credit hours as follows:

Select one track:

###### Track one

CSC-140	Introduction to Computer Science	3
CSC-240	Advanced Computer Science	3

###### Track two

MIS-105	Programming Principles	3
MIS-154	C# Programming I	3
OR		
MIS-160	C++ Programming	3
OR		
MIS-176	Java Programming I	3

#### Required career courses

##### 12 credit hours as follows:

MIS-123	Database Design	3
MIS-124	iOS Programming I	3
MIS-224	iOS Programming II	3
MIS-292	SQL/Database Applications	3

#### Suggested Schedule

##### Semester 1 (3 credit hours)

CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3

**Semester 2 (6 credit hours)**

MIS-123	Database Design	3
CSC-240	Advanced Computer Science	3
OR		
MIS-154	C# Programming I	3
OR		
MIS-160	C++ Programming	3
OR		
MIS-176	Java Programming I	3

**Semester 3 (9 credit hours)**

MIS-124	iOS Programming I	3
MIS-224	iOS Programming II	3
MIS-292	SQL/Database Applications	3

**iOS Programmer, Certificate****Certificate—9 credit hours***Curriculum Code 1383*

This program prepares students who are experienced programmers or software developers or have already completed the Programming Skills certificate with iOS programming skills.

**Required career courses****9 credit hours as follows:**

CSC-140	Introduction to Computer Science	3
OR		
MIS-154	C# Programming I	3
OR		
MIS-160	C++ Programming	3
OR		
MIS-176	Java Programming I	3
MIS-124	iOS Programming I	3
MIS-224	iOS Programming II	3

**Suggested Schedule****Semester 1 (3 credit hours)**

CSC-140	Introduction to Computer Science	3
OR		
MIS-154	C# Programming I	3
OR		
MIS-160	C++ Programming	3
OR		
MIS-176	Java Programming I	3

**Semester 2 (6 credit hours)**

MIS-124	iOS Programming I	3
MIS-224	iOS Programming II	3

**Java Programmer, Certificate****Certificate—21 credit hours***Curriculum Code 1458*

This program prepares students with programming skills that will, when combined with a degree, provide the background for entry-level or trainee positions or enhance an information technology professional's versatility and career advancement potential.

Because Java was designed for the Internet, it has been a popular choice for writing programs that are platform independent and safe. Java remains popular for network programming and web development. More recently, object-oriented features in the language have made Java a competitive option for writing stand-alone applications. Within this certificate's courses you will learn the latest in software design and development methodologies while gaining hands-on experience with the latest versions of Java.

**Required Career Courses****21 credit hours as follows:**

CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3
MIS-123	Database Design	3
MIS-176	Java Programming I	3
MIS-276	Java Programming II	3
MIS-283	Java Web Applications	3
MIS-286	Advanced Java Development	3
MIS-292	SQL/Database Applications	3

**Suggested Schedule****Semester 1 (3 credit hours)**

CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3

**Semester 2 (6 credit hours)**

MIS-123	Database Design	3
MIS-176	Java Programming I	3

**Semester 3 (6 credit hours)**

MIS-276	Java Programming II	3
MIS-292	SQL/Database Applications	3

**Semester 4 (6 credit hours)**

MIS-283	Java Web Applications	3
MIS-286	Advanced Java Development	3

**Mobile Application Developer, Certificate****Certificate—27 credit hours***Curriculum Code 1385*

This program prepares students who otherwise have a degree, with combined mobile programming technology and database skills that will provide the background for entry-level or trainee positions or enhance an information technology professional's versatility and career advancement potential. Within this certificate's courses, students will gain hands-on experience programming for the user interface of prominent mobile application platforms designed with the Android and iOS programming languages. Students will create applications for these mobile devices using a version of Java and Objective C customized for development on the Android and iOS platforms.

**Required career courses****27 credit hours as follows:**

CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3
MIS-123	Database Design	3
MIS-124	iOS Programming I	3
MIS-142	Android Programming I	3
CSC-240	Advanced Computer Science	3
OR		
MIS-154	C# Programming I	3
OR		
MIS-160	C++ Programming	3
MIS-176	Java Programming I	3
MIS-224	iOS Programming II	3
MIS-242	Android Programming II	3
MIS-292	SQL/Database Applications	3

**Suggested Schedule****Semester 1 (6 credit hours)**

CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3
MIS-123	Database Design	3

**Semester 2 (9 credit hours)**

CSC-240	Advanced Computer Science	3
OR		
MIS-154	C# Programming I	3
OR		
MIS-160	C++ Programming	3
MIS-176	Java Programming I	3
MIS-292	SQL/Database Applications	3

**Semester 3 (6 credit hours)**

MIS-124	iOS Programming I	3
MIS-224	iOS Programming II	3

**Semester 4 (6 credit hours)**

MIS-142	Android Programming I	3
MIS-242	Android Programming II	3

**Multimedia Designer, Certificate****Certificate—24 credit hours***Curriculum Code 1342*

This program prepares students to work in the fields of multimedia design. Students will receive training in the digital media, design, visual effects and motion graphics, animation, production development, production, and communication and information technology. Students will learn about production, editing, and layout design. Jobs in multimedia design can be found in career fields such as television or film production, animation, audio production, and set design, as well as several other multimedia and production design fields.

**Required career courses****24 credit hours as follows:**

MIS-141	Website Development: HTML & CSS	3
MIS-241	Adv. Website Dev: Javascript & jQuery	3
OSA-135	Website Applications	3
OSA-138	Video Editing: Adobe Premiere	3
OSA-232	Introduction to Adobe Creative Suite	3
OSA-234	Adobe Illustrator	3
OSA-236	Adobe Photoshop	3
OSA-238	Adv. Video Editing: Adobe AfterEffects	3

**Suggested Schedule****Semester 1 (9 credit hours)**

MIS-141	Website Development: HTML & CSS	3
OSA-138	Video Editing: Adobe Premiere	3
OSA-232	Introduction to Adobe Creative Suite	3

**Semester 2 (9 credit hours)**

MIS-241	Adv. Website Dev: Javascript & jQuery	3
OSA-135	Website Applications	3
OSA-234	Adobe Illustrator	3

**Semester 3 (6 credit hours)**

OSA-236	Adobe Photoshop	3
OSA-238	Adv. Video Editing: Adobe AfterEffects	3

**PHP Programmer, Certificate****Certificate—18 credit hours***Curriculum Code 1344*

This program prepares students with programming skills to design and develop web pages with dynamically generated content. This program will also provide the background for entry-level or trainee positions or enhance an information technology professional's versatility and career advancement potential.

**Required Career Courses****18 credit hours as follows:**

CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3
MIS-111	Internet Technologies	3
MIS-123	Database Design	3
MIS-126	PHP Programming I	3
MIS-141	Website Development: HTML & CSS	3
MIS-226	PHP Programming II	3

**Suggested Schedule****Semester 1 (9 credit hours)**

CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3

MIS-111	Internet Technologies	3
MIS-141	Website Development: HTML & CSS	3

**Semester 2 (6 credit hours)**

MIS-123	Database Design	3
MIS-126	PHP Programming I	3

**Semester 3 (3 credit hours)**

MIS-226 PHP Programming II

3

coursework maps to industry certification in personal database management.

**Programming Skills, Certificate****Certificate—9 credit hours***Curriculum Code 1382*

This program prepares students with fundamental programming and database skills. It may serve as a foundation for students who plan to pursue careers in technology, an enhancement to studies in other disciplines, or a means for adding technical credentials to one's resume.

**Required Career Courses****9 credit hours as follows:**

Select one track (three courses) from below:

**Track one**

CSC-140	Introduction to Computer Science	3
CSC-240	Advanced Computer Science	3
MIS-123	Database Design	3

**Track two**

MIS-105	Programming Principles	3
MIS-123	Database Design	3
MIS-139	VB.NET Programming I	3
OR		
MIS-154	C# Programming I	3
OR		
MIS-160	C++ Programming	3
OR		
MIS-176	Java Programming I	3

**Suggested Schedule****Semester 1 (3 credit hours)**

CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3

**Semester 2 (6 credit hours)**

MIS-123	Database Design	3
CSC-240	Advanced Computer Science	3
OR		
MIS-139	VB.NET Programming I	3
OR		
MIS-154	C# Programming I	3
OR		
MIS-160	C++ Programming	3
OR		
MIS-176	Java Programming I	3

**Small Database Administrator, Certificate****Certificate—6 credit hours***Curriculum Code 1380*

This program prepares students with skills to build and administer a single-user database, including the designing of tables, queries, forms, reports, and macros. The

**Required Career Courses****6 credit hours as follows:**

IMS-115	Microsoft Office I	3
OSA-257	Microsoft Access	3

**Suggested Schedule****Semester 1 (3 credit hours)**

IMS-115	Microsoft Office I	3
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**Semester 2 (3 credit hours)**

OSA-257	Microsoft Access	3
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**Software Developer, Certificate****Certificate—36 credit hours***Curriculum Code 1305*

This program prepares students with programming skills that will, when combined with a degree and industry experience, provide the background for entry-level or trainee software development positions. Information technology professionals may also pursue this program to enhance their versatility and career advancement potential.

Within this certificate's courses students will gain hands-on experience using at least two programming languages — selecting from C#, Java, iOS, Android, and Visual Basic. Software development lifecycle issues — including solution conception, design, implementation, and testing — are addressed with hands-on experiences using the latest hardware and software development tools. Students expand on their breadth of knowledge by selecting from database, web design/development, eCommerce, and Microsoft Office application integration course options.

**Required Career Courses****15 credit hours as follows:**

CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3

MIS-123	Database Design	3
MIS-210	Project Management	3
MIS-291	Systems Analysis and Design	3
MIS-292	SQL/Database Applications	3

**Choose one track (9 credit hours):****Android Programmer Track (9 credit hours)**

MIS-142	Android Programming I	3
MIS-176	Java Programming I	3
MIS-242	Android Programming II	3

**C# Programmer Track (9 credit hours)**

MIS-154	C# Programming I	3
MIS-254	C# Programming II	3

MIS-285	ASP.NET Web Applications	3
OR		
MIS-289	Advanced .NET Development	3

<b>iOS Programmer Track (9 credit hours)</b>		
MIS-124	iOS Programming I	3
MIS-224	iOS Programming II	3
OR		
CSC-140	Introduction to Computer Science	3
OR		
MIS-154	C# Programming I	3
OR		
MIS-160	C++ Programming	3
OR		
MIS-176	Java Programming I	3
<b>Java Programmer Track (9 credit hours)</b>		
MIS-176	Java Programming I	3
MIS-276	Java Programming II	3
MIS-283	Java Web Applications	3
OR		
MIS-286	Advanced Java Development	3
<b>Visual Basic.NET Programmer Track (9 credit hours)</b>		
MIS-139	VB.NET Programming I	3
MIS-239	VB.NET Programming II	3
MIS-285	ASP.NET Web Applications	3
OR		
MIS-289	Advanced .NET Development	3
<b>Choose another track (6 credit hours not duplicating selections from the prior track):</b>		
<b>Android Programming Track (6 credit hours)</b>		
MIS-142	Android Programming I	3
MIS-176	Java Programming I	3
<b>C# Programming Track (6 credit hours)</b>		
MIS-154	C# Programming I	3
MIS-254	C# Programming II	3
<b>E-Commerce Development Track (6 credit hours)</b>		
MIS-197	E-Commerce Development	3
MIS-297	Website Design: WordPress	3
<b>iOS Programming Track (6 credit hours)</b>		
MIS-124	iOS Programming I	3
MIS-154	C# Programming I	3
OR		
MIS-160	C++ Programming	3
OR		
MIS-176	Java Programming I	3
<b>Java Programming Track (6 credit hours)</b>		
MIS-176	Java Programming I	3
MIS-276	Java Programming II	3
<b>PHP Programming Track (6 credit hours)</b>		
MIS-126	PHP Programming I	3
MIS-226	PHP Programming II	3
(Note: MIS-141 must be taken as an elective to pursue the PHP Programming track.)		
<b>RPG Programming Track (6 credit hours)</b>		
MIS-120	RPG Programming I	3
MIS-220	RPG Programming II	3
<b>Visual Basic.NET Programming Track (6 credit hours)</b>		
MIS-139	VB.NET Programming I	3
OR		
MIS-239	VB.NET Programming II	3
<b>Web Client Scripting Track (6 credit hours)</b>		
MIS-141	Website Development: HTML & CSS	3
MIS-241	Adv. Website Dev: Javascript & jQuery	3
<b>Web Design Track (6 credit hours)</b>		
OSA-125	Introduction to Website Design	3
OSA-135	Website Applications	3
<b>Electives</b>		
<b>Select 6 credit hours that have not been selected above:</b>		
CSC-140	Introduction to Computer Science	3
CSC-240	Advanced Computer Science	3
MIS-120	RPG Programming I	3
MIS-124	iOS Programming I	3
MIS-126	PHP Programming I	3
MIS-139	VB.NET Programming I	3
MIS-141	Website Development: HTML & CSS	3
MIS-142	Android Programming I	3
MIS-154	C# Programming I	3
MIS-160	C++ Programming	3
MIS-176	Java Programming I	3
MIS-197	E-Commerce Development	3
MIS-199	Special Short Topics in Technology	1
MIS-200	Special Topics in Technology	3
MIS-220	RPG Programming II	3
MIS-224	iOS Programming II	3
MIS-226	PHP Programming II	3
MIS-239	VB.NET Programming II	3
MIS-241	Adv. Website Dev: Javascript & jQuery	3
MIS-242	Android Programming II	3
MIS-251	ColdFusion Programming	3
MIS-254	C# Programming II	3
MIS-259	Flash ActionScript	3
MIS-276	Java Programming II	3
MIS-283	Java Web Applications	3
MIS-285	ASP.NET Web Applications	3
MIS-286	Advanced Java Development	3
MIS-289	Advanced .NET Development	3
MIS-294	Oracle Database Management	3
MIS-297	Website Design: WordPress	3
OSA-125	Introduction to Website Design	3
OSA-135	Website Applications	3
(NOTE: MIS-199 and MIS-200 can be repeated up to three times for credit as long as different topics are selected.)		
<b>Suggested Schedule</b>		
<b>Semester 1 (6 credit hours)</b>		
CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3
—-—	Elective	3
<b>Semester 2 (9 credit hours)</b>		
MIS-123	Database Design	3
—-—	Elective	3
—-—	Elective	3
<b>Semester 3 (9 credit hours)</b>		
MIS-210	Project Management	3
MIS-291	Systems Analysis and Design	3
—-—	Elective	3

**Semester 4 (12 credit hours)**

MIS-292	SQL/Database Applications	3
___-___	Elective	3
___-___	Elective	3
___-___	Elective	3

**Visual Basic.NET Programmer, Certificate****Certificate—21 credit hours****Curriculum Code 1457**

This program prepares students with programming skills that will, when combined with a degree, provide the background for entry-level or trainee positions or enhance an information technology professional's versatility and career advancement potential.

Visual Basic is considered to be one of the easiest-to-learn programming languages and it boasts the largest community of software developers worldwide. Visual Basic provides developers with a tool they can use to rapidly deliver desktop, PDA, and data-driven web applications using state-of-the-art object-oriented techniques. Within this certificate's courses you will learn the latest in software design and development methodologies while gaining hands-on experience with the latest versions of Visual Basic.

**Required Career Courses****21 credit hours as follows:**

CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3
MIS-123	Database Design	3
MIS-139	VB.NET Programming I	3
MIS-239	VB.NET Programming II	3
MIS-285	ASP.NET Web Applications	3
MIS-289	Advanced .NET Development	3
MIS-292	SQL/Database Applications	3

**Suggested Schedule****Semester 1 (3 credit hours)**

CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3

**Semester 2 (6 credit hours)**

MIS-123	Database Design	3
MIS-139	VB.NET Programming I	3

**Semester 3 (6 credit hours)**

MIS-239	VB.NET Programming II	3
MIS-292	SQL/Database Applications	3

**Semester 4 (6 credit hours)**

MIS-285	ASP.NET Web Applications	3
MIS-289	Advanced .NET Development	3

**Website Developer, Certificate****Certificate—36 credit hours****Curriculum Code 1433**

This program is designed for the experienced computer user who has strong skills in Microsoft Windows navigation and computer applications packages. Students who are interested in beginning a career in website development and who do not possess these prerequisite skills should meet with the department chair or coordinator to plan appropriate course selection.

**Required Career Courses****27 credit hours as follows:**

CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3
MIS-111	Internet Technologies	3
MIS-121	Networking for Business	3
MIS-123	Database Design	3
MIS-141	Website Development: HTML & CSS	3
MIS-241	Adv. Website Dev: Javascript & jQuery	3
MIS-292	SQL/Database Applications	3
OSA-125	Introduction to Website Design	3
OR		
OSA-135	Website Applications	3

**Select 3 credit hours from:**

BUS-105	Small Business Management	4
BUS-130	Principles of Marketing	3
BUS-131	Principles of Retailing	3
BUS-134	International Business	3
BUS-136	Business Law	3
BUS-200	Consumer Behavior	3
BUS-230	Advertising	3
BUS-231	Principles of Management	3
MIS-210	Project Management	3
MIS-291	Systems Analysis and Design	3

**Choose one track (9 credit hours):****C# Programmer Track (9 credit hours)**

MIS-154	C# Programming I	3
MIS-254	C# Programming II	3
MIS-285	ASP.NET Web Applications	3

**Java Programmer Track (9 credit hours)**

MIS-176	Java Programming I	3
MIS-276	Java Programming II	3
MIS-283	Java Web Applications	3

**Multimedia Programmer Track (9 credit hours)**

MIS-251	ColdFusion Programming	3
MIS-259	Flash ActionScript	3
MIS-297	Website Design: WordPress	3

**PHP Programmer Track (9 credit hours)**

MIS-126	PHP Programming I	3
MIS-226	PHP Programming II	3
MIS-297	Website Design: WordPress	3

**Visual Basic .NET Programmer Track (9 credit hours)**

MIS-139	VB.NET Programming I	3
MIS-239	VB.NET Programming II	3
MIS-285	ASP.NET Web Applications	3

(NOTE: OSA-125 is recommended for students pursuing the VB.NET or C# Programmer Track; OSA-135 is

recommended for students pursuing the Java or Multimedia Programmer Track.)

#### **Suggested Schedule**

##### **Semester 1 (9 credit hours)**

CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3
MIS-111	Internet Technologies	3
MIS-123	Database Design	3
<b>Semester 2 (9 credit hours)</b>		
MIS-141	Website Development: HTML & CSS	3
___-___	Track Selection Course	3
OSA-125	Introduction to Website Design	3
OR		
OSA-135	Website Applications	3
<b>Semester 3 (9 credit hours)</b>		
MIS-241	Adv. Website Dev: Javascript & jQuery	3
___-___	Track Selection Course	3
MIS or	Required Career Course	3
BUS-___		
<b>Semester 4 (9 credit hours)</b>		
MIS-121	Networking for Business	3
MIS-292	SQL/Database Applications	3
___-___	Track Selection Course	3

#### **Website Designer, Certificate**

##### **Certificate—33 credit hours**

##### *Curriculum Code 1434*

This program is designed for the computer user who has strong skills in Microsoft Windows navigation and computer applications packages. Students who are interested in beginning a career in website design and who do not possess these prerequisite skills should meet with the department chair or coordinator to plan appropriate course selection.

#### **Required Career Courses**

##### **33 credit hours as follows:**

CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3
MIS-111	Internet Technologies	3
MIS-123	Database Design	3
MIS-141	Website Development: HTML & CSS	3
MIS-241	Adv. Website Dev: Javascript & jQuery	3
MIS-297	Website Design: WordPress	3
OSA-125	Introduction to Website Design	3
OSA-135	Website Applications	3
OSA-232	Introduction to Adobe Creative Suite	3
OSA-234	Adobe Illustrator	3
OSA-236	Adobe Photoshop	3

#### **Suggested Schedule**

##### **Semester 1 (12 credit hours)**

CSC-140	Introduction to Computer Science	3
OR		
MIS-105	Programming Principles	3
MIS-111	Internet Technologies	3
MIS-123	Database Design	3
OSA-232	Introduction to Adobe Creative Suite	3

##### **Semester 2 (9 credit hours)**

MIS-141	Website Development: HTML & CSS	3
OSA-125	Introduction to Website Design	3
OSA-234	Adobe Illustrator	3

##### **Semester 3 (12 credit hours)**

MIS-241	Adv. Website Dev: Javascript & jQuery	3
MIS-297	Website Design: WordPress	3
OSA-135	Website Applications	3
OSA-236	Adobe Photoshop	3

#### **Marketing and Management**

***This program consists of one degree and one certificate.***

#### **Marketing and Management, A.A.S.**

##### **A.A.S. Degree—63 credit hours**

##### *Curriculum Code 1238*

This program is designed to provide students with entry-level employment or advancement within businesses involved in the marketing of goods or services. This program prepares students for career opportunities as store managers, department and division managers, product managers, warehouse managers, and purchasing agents. This list is not inclusive of all occupations available to marketing and management graduates since management positions vary in fields such as product and production planning, advertising, sales, retailing, wholesaling, distribution, consumer research, small business ownership, and general business administration. An important feature of this program is the internship/seminar component.

Jobs for retail supervisors and managers without college-level coursework are expected to be very competitive. Some retail companies have begun requiring their sales staff to report directly to upper-management personnel, bypassing the department-level manager. Many job openings will occur as experienced supervisors and managers move into higher levels of management.

#### **Required General Education Courses**

##### **15 credit hours as follows:**

BUS-120	Business Mathematics	3
OR		
MTH-120	General Education Mathematics	3
COM-101	Composition I	3
COM-103	Speech Fundamentals	3
ECO-101	Principles of Macro-Economics	3

(Note: Take MTH-120 or higher. MTH-120 recommended for transfer students.)

**A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

**Select 3 credit hours from Humanities and Fine Arts or Physical and Life Sciences:**

ARB, ART, FRE, HUM, LIT, MUS, PHI, SPA, THE or BIO, CHM, EAS, GEL, NAT, PHS, PHY

#### Required Career Courses

##### 48 credit hours as follows:

BUS-100	Introduction to Business	3
BUS-105	Small Business Management	4
BUS-110	Legal Environment in Business	3
OR		
BUS-136	Business Law	3
BUS-130	Principles of Marketing	3
BUS-133	Salesmanship	3
BUS-134	International Business	3
BUS-135	Personal Finance	2
BUS-142	Financial Accounting	4
BUS-143	Managerial Accounting	4
BUS-226	Business Ethics	3
BUS-230	Advertising	3
BUS-231	Principles of Management	3
BUS-232	Human Resources Management	3
BUS-233	Internship	3
BUS-237	Seminar	1
IMS-115	Microsoft Office I	3

#### Suggested Schedule

##### Semester 1 (15 credit hours)

BUS-100	Introduction to Business	3
COM-101	Composition I	3
BUS-120	Business Mathematics	3
OR		
MTH-120	General Education Mathematics	3
BUS-130	Principles of Marketing	3
IMS-115	Microsoft Office I	3

(Note: Take MTH-120 or higher. MTH-120 recommended for transfer students.)

##### Semester 2 (16 credit hours)

BUS-110	Legal Environment in Business	3
OR		

BUS-136	Business Law	3
BUS-142	Financial Accounting	4
COM-103	Speech Fundamentals	3
ECO-101	Principles of Macro-Economics	3
—	Humanities and Fine Arts or Physical and Life Sciences Elective	3
<b>Semester 3 (16 credit hours)</b>		
BUS-133	Salesmanship	3
BUS-143	Managerial Accounting	4
BUS-226	Business Ethics	3
BUS-231	Principles of Management	3
BUS-232	Human Resources Management	3
<b>Semester 4 (16 credit hours)</b>		
BUS-105	Small Business Management	4
BUS-134	International Business	3
BUS-135	Personal Finance	2
BUS-230	Advertising	3
BUS-233	Internship	3
BUS-237	Seminar	1

## Retail Management, Certificate

### Certificate—25 credit hours

#### Curriculum Code 1415

This program is designed to provide students with employment or advancement in the retail sector through an understanding of the core competencies defined by the industry as most relevant and focused for success in retail business. Students will develop skills and competencies that are transferable across multiple sectors. These key foundational skills can be applied immediately in the workplace and will prepare students for a leadership role within an organization.

#### Required General Education Course

##### 3 credit hours as follows:

COM-103	Speech Fundamentals	3
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#### Required Career Courses

##### 22 credit hours as follows:

BUS-130	Principles of Marketing	3
BUS-131	Principles of Retailing	3
BUS-142	Financial Accounting	4
BUS-170	Introduction to Human Resources	3
BUS-231	Principles of Management	3
IMS-115	Microsoft Office I	3
PSY-201	Industrial/Organizational Psychology	3

#### Suggested Schedule

##### Semester 1 (12 credit hours)

BUS-130	Principles of Marketing	3
BUS-231	Principles of Management	3
IMS-115	Microsoft Office I	3
PSY-201	Industrial/Organizational Psychology	3

##### Semester 2 (13 credit hours)

BUS-131	Principles of Retailing	3
BUS-142	Financial Accounting	4
BUS-170	Introduction to Human Resources	3

COM-103	Speech Fundamentals	3
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## Mechanical and Fluid Power Maintenance

*This program consists of one certificate.*

### Mechanical and Fluid Power Maintenance, Certificate

**Certificate—40 credit hours**

*Curriculum Code 1275*

This program prepares students in four areas important to maintenance personnel, including communications, mechanical systems, electrical systems, and fluid power systems. Students will be prepared for entry-level employment in facility maintenance, service maintenance and/or production maintenance fields.

Employment of industrial machinery repairers is expected to grow more slowly than the average for all occupations as more firms introduce automated production equipment. Qualified applicants should find ample employment opportunities as older workers retire, and employment in industrial machinery repair is not usually affected by seasonal changes in production.

#### Required Career Courses

**40 credit hours as follows:**

ELT-101	Electricity and Electronics	3
ELT-201	Industrial Controls	3
ELT-202	Advanced Industrial Controls	3
ELT-211	Introduction to PLCs	3
IMM-101	Mechanical Systems I	3
IMM-103	Machinery Moving and Set-Up	2
IMM-107	Mechanical Systems II	3
IMM-120	Fluid Power I: Basic Circuits	3
IMM-220	Fluid Power II: Intermediate System	3
IST-109	Prints for Industry	3
MTH-133	Math for Industry	2
WLD-111	Basic Arc/Gas Welding I	3
WLD-112	Basic Arc/Gas Welding II	3
WLD-113	Basic Metallurgy and Materials	3

#### Suggested Schedule

##### Semester 1 (8 credit hours)

ELT-101	Electricity and Electronics	3
IMM-101	Mechanical Systems I	3
MTH-133	Math for Industry	2

##### Semester 2 (11 credit hours)

ELT-201	Industrial Controls	3
IMM-103	Machinery Moving and Set-Up	2
IMM-107	Mechanical Systems II	3
WLD-113	Basic Metallurgy and Materials	3

##### Semester 3 (9 credit hours)

ELT-202	Advanced Industrial Controls	3
IMM-120	Fluid Power I: Basic Circuits	3
WLD-111	Basic Arc/Gas Welding I	3

##### Semester 4 (12 credit hours)

ELT-211	Introduction to PLCs	3
IMM-220	Fluid Power II: Intermediate System	3

IST-109	Prints for Industry	3
WLD-112	Basic Arc/Gas Welding II	3

## Mechanical Design Technology

*This program consists of one degree and five active certificates.*

### Mechanical Design Technology, A.A.S.

**A.A.S. Degree—63 credit hours**

*Curriculum Code 1221*

This program prepares students for careers as professional draftsmen, mechanical designers and CAD technicians. Employment opportunities for those completing the program include positions such as drafter, detailer, CAD operator, CAD technician, mechanical design technician, layout designer, and laboratory technician.

Job opportunities for CAD drafters and designers are widespread. Industrial growth and the increasingly complex design problems associated with new products and processes will greatly increase the demand for drafting services. Replacement needs and CAD—and the ease of obtaining computer-generated information—stimulates a demand for more information, so there will continue to be growth in this occupation.

#### Required General Education Courses

**19 credit hours as follows:**

COM-101	Composition I	3
COM-103	Speech Fundamentals	3
MTH-141	College Algebra (Functions)	4
MTH-142	Trigonometric Functions	2
PHY-150	Mechanics, Heat & Sound	4

**A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with an earned grade of "C" or better in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with an earned grade of "C" or better.

**Select 3 credit hours from Social/Behavioral Sciences:**

ANT, ECO, GEO, HIS, PSC, PSY, SOC, SSC

#### Required Career Courses

**38 credit hours as follows:**

MDT-101	Introduction to Drafting	3
MDT-103	Orientation to MDT Careers	1
MDT-106	Mechanical Assemblies	2
MDT-110	Mechanical Detailing	3
MDT-115	Applied GDT	2

MDT-145	Intro to Computer Aided Drafting	3
MDT-160	Introduction to 3D Modeling	3
MDT-201	Manufacturing and Design	3
MDT-205	Machine Elements	2
MDT-210	Statics and Strength of Materials	3
MDT-213	Plant Engineering Drafting	2
MDT-255	Machine Design	3
MDT-285	3D Parametric Modeling	3
WLD-113	Basic Metallurgy and Materials	3

**Electives****Select 6 credit hours from the following:**

MDT-125	Intro to Additive Manufacturing	3
MDT-199	Special Topics	3
MDT-288	Applied 3D Parametric Modeling	3

**Suggested Schedule****Semester 1 (14 credit hours)**

COM-101	Composition I	3
MDT-101	Introduction to Drafting	3
MDT-103	Orientation to MDT Careers	1
MDT-145	Intro to Computer Aided Drafting	3
MTH-141	College Algebra (Functions)	4

(Note: MTH-141 or higher)

**Semester 2 (16 credit hours)**

MDT-106	Mechanical Assemblies	2
MDT-110	Mechanical Detailing	3
MDT-115	Applied GDT	2
MDT-160	Introduction to 3D Modeling	3
WLD-113	Basic Metallurgy and Materials	3
___	Social Science Elective	3

**Semester 3 (18 credit hours)**

MDT-201	Manufacturing and Design	3
MDT-205	Machine Elements	2
MDT-285	3D Parametric Modeling	3
MDT-___	Elective	3
MTH-142	Trigonometric Functions	2
PHY-150	Mechanics, Heat & Sound	4

(Note: MTH-142 or higher)

**Semester 4 (15 credit hours)**

COM-103	Speech Fundamentals	3
MDT-210	Statics and Strength of Materials	3
MDT-213	Plant Engineering Drafting	2
MDT-255	Machine Design	3
MDT-___	Elective	3

**Architectural CAD, Certificate****Certificate—23 credit hours****Curriculum Code 1436**

This program prepares the student for a career in the architecture and civil engineering fields as a CAD specialist. Two- and three-dimensional animated computer images are created, edited, and produced.

**Required Career Courses****23 credit hours as follows:**

MDT-145	Intro to Computer Aided Drafting	3
MDT-190	Construction Blueprint Reading	2

MDT-245	Applied CAD	3
MDT-260	CAD Management	3
MDT-278	Design Visualization	3
MDT-290	Introduction to Revit Architecture	3
MDT-291	Revit Architecture II	3
MDT-292	Revit Bldg Design & Construction	3

**Suggested Schedule****Semester 1 (8 credit hours)**

MDT-145	Intro to Computer Aided Drafting	3
MDT-190	Construction Blueprint Reading	2
MDT-278	Design Visualization	3

**Semester 2 (6 credit hours)**

MDT-245	Applied CAD	3
MDT-290	Introduction to Revit Architecture	3

**Semester 3 (9 credit hours)**

MDT-260	CAD Management	3
MDT-291	Revit Architecture II	3
MDT-292	Revit Bldg Design & Construction	3

**AutoCAD Specialist, Certificate****Certificate—12 credit hours****Curriculum Code 1363**

This program is designed to provide extensive breadth and depth of knowledge of AutoCAD design software. Students will complete courses utilizing two-dimensional and three-dimensional drawing and modeling. The courses are not discipline-specific, but instead focus on the software.

**Required Career Courses****12 credit hours as follows:**

MDT-145	Intro to Computer Aided Drafting	3
MDT-160	Introduction to 3D Modeling	3
MDT-245	Applied CAD	3
MDT-260	CAD Management	3

**Suggested Schedule****Semester 1 (6 credit hours)**

MDT-145	Intro to Computer Aided Drafting	3
MDT-245	Applied CAD	3

**Semester 2 (6 credit hours)**

MDT-160	Introduction to 3D Modeling	3
MDT-260	CAD Management	3

**Autodesk Inventor Specialist, Certificate****Certificate—8 credit hours****Curriculum Code 1339**

This program provides an in-depth, focused study of three-dimensional modeling of mechanical parts and assemblies concentrating on parametric, adaptive design techniques, and photo-realistic rendering.

**Required Career Courses****8 credit hours as follows:**

MDT-285	3D Parametric Modeling	3
MDT-288	Applied 3D Parametric Modeling	3
MDT-289	3D Parametric Assemblies	2

**Suggested Schedule****Semester 1 (6 credit hours)**

MDT-285	3D Parametric Modeling	3
MDT-288	Applied 3D Parametric Modeling	3

**Semester 2 (2 credit hours)**

MDT-289	3D Parametric Assemblies	2
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**Mechanical Drafting Associate, Certificate****Certificate—17 credit hours***Curriculum Code 1220*

This program prepares students for entry-level positions in mechanical drafting and computer aided design (CAD). Development of drafting/CAD skills and practical applications are stressed.

**Required Career Courses****17 credit hours as follows:**

MDT-101	Introduction to Drafting	3
MDT-110	Mechanical Detailing	3
MDT-115	Applied GDT	2
MDT-145	Intro to Computer Aided Drafting	3
MDT-213	Plant Engineering Drafting	2
MDT-285	3D Parametric Modeling	3

**Suggested Schedule****Semester 1 (9 credit hours)**

MDT-101	Introduction to Drafting	3
MDT-110	Mechanical Detailing	3
MDT-145	Intro to Computer Aided Drafting	3

**Semester 2 (8 credit hours)**

MDT-115	Applied GDT	2
MDT-213	Plant Engineering Drafting	2
MDT-285	3D Parametric Modeling	3

**3-D CAD Specialist, Certificate****Certificate—18 credit hours***Curriculum Code 1439*

**New students are currently not being admitted.**

**CAD Programming/Management, Certificate****Certificate—18 credit hours***Curriculum Code 1437*

**New students are currently not being admitted.**

**Computer Animation, Certificate****Certificate—23 credit hours***Curriculum Code 1438*

**New students are currently not being admitted.**

**Mechanical CAD Specialist, Certificate****Certificate—24 credit hours***Curriculum Code 2102*

**New students are currently not being admitted.**

**Mechanical Design Associate, Certificate****Certificate—46 credit hours***Curriculum Code 1362*

**New students are currently not being admitted.**

**Mechatronics Technology**

*This program consists of one degree.*

**Mechatronics Technology, A.A.S.****A.A.S. Degree—64 credit hours***Curriculum Code 1338*

This program studies the synergistic integration of mechanics, electronics, and computer controls with the intent to design better consumer and industrial products more efficiently and effectively. With the emergence of new materials, smaller and faster electronics, and advanced computer controls, products are being designed to seamlessly incorporate all of these new technologies. Mechatronic technicians are responsible for integrating and incorporating these inter-disciplinary, cutting-edge technologies to design these new products.

The Mechatronics Technology Associate in Applied Science degree program is designed to prepare students for a career in the inter-disciplinary field of mechatronics design, integrating CAD, mechanics, electronics, and computer controls. The curriculum incorporates existing courses from the Mechanical Design Technology, Electronics, and Information Management Systems career programs. This A.A.S. degree can also be used to articulate into a Mechatronic Engineering Technology Bachelor of Science degree program at partner universities.

**Required General Education Courses****19 credit hours as follows:**

COM-101	Composition I	3
COM-103	Speech Fundamentals	3
MTH-141	College Algebra (Functions)	4
MTH-142	Trigonometric Functions	2
PHY-150	Mechanics, Heat & Sound	4

**A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with an earned grade of “C” or better in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with an earned grade of “C” or better.

**Select 3 credit hours from Humanities and Fine Arts or Social/Behavioral Science:**

ANT, ARB, ART, ECO, FRE, GEO, HIS, HUM, LIT, MUS, PHI, PSC, PSY, SOC, SPA, SSC, THE

**Required Career Courses**

**45 credit hours as follows:**

ELT-101	Electricity and Electronics	3
ELT-102	Digital Logic/Solid State Devices	3
ELT-201	Industrial Controls	3
ELT-202	Advanced Industrial Controls	3
ELT-211	Introduction to PLCs	3
ELT-222	Advanced PLCs	3
IMM-110	Hydraulics	3
OR		
IMM-115	Pneumatics	3
MDT-101	Introduction to Drafting	3
MDT-103	Orientation to MDT Careers	1
MDT-106	Mechanical Assemblies	2
MDT-110	Mechanical Detailing	3
MDT-125	Intro to Additive Manufacturing	3
OR		
MDT-201	Manufacturing and Design	3
MDT-145	Intro to Computer Aided Drafting	3
MDT-205	Machine Elements	2
MDT-210	Statics and Strength of Materials	3
WLD-113	Basic Metallurgy and Materials	3

**Suggested Schedule**

**Semester 1 (17 credit hours)**

COM-101	Composition I	3
ELT-101	Electricity and Electronics	3
MDT-101	Introduction to Drafting	3
MDT-103	Orientation to MDT Careers	1
MDT-145	Intro to Computer Aided Drafting	3
MTH-141	College Algebra (Functions)	4

(Note: MTH-141 or higher)

**Semester 2 (16 credit hours)**

COM-103	Speech Fundamentals	3
ELT-102	Digital Logic/Solid State Devices	3
ELT-201	Industrial Controls	3
MDT-106	Mechanical Assemblies	2
MDT-110	Mechanical Detailing	3
MTH-142	Trigonometric Functions	2

(Note: MTH-142 or higher)

**Semester 3 (16 credit hours)**

ELT-202	Advanced Industrial Controls	3
ELT-211	Introduction to PLCs	3
MDT-125	Intro to Additive Manufacturing	3
OR		
MDT-201	Manufacturing and Design	3

**Semester 4 (15 credit hours)**

ELT-222	Advanced PLCs	3
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IMM-110	Hydraulics	3
OR		
IMM-115	Pneumatics	3
MDT-210	Statics and Strength of Materials	3
WLD-113	Basic Metallurgy and Materials	3
_____	Humanities and Fine Arts Elective	3
OR		
_____	Social and Behavioral Sciences Elective	3

**Medical Assistant**

***This program consists of one certificate.***

**Medical Assistant, Certificate**

**Certificate—50 credit hours**

**Curriculum Code 1455**

This program prepares graduates to begin careers as members of a multidisciplinary health care team within an ambulatory care setting. Students develop skills in accordance with the American Association of Medical Assistants entry-level competencies to perform administrative and clinical procedures. Additionally, the program will instill a code of professional ethics coupled with a foundation in skills that are needed to assist physicians in caring for patients. Graduates are eligible to take a national certification exam upon course and externship completion.

Medical assistants perform administrative and clinical tasks to keep the offices of physicians, chiropractors and other health care practitioners running smoothly. Administrative duties may include scheduling appointments, greeting clients, maintaining medical records, coding and filling out insurance forms, arranging for diagnostic testing and referrals, handling correspondence, performing billing and bookkeeping procedures, and using computer applications.

Clinical duties vary by state. They may include conducting medical histories, explaining treatment procedures, preparing clients for examinations, and assisting the physician during the exam. Medical assistants also may collect and prepare laboratory specimens for testing and may perform basic laboratory testing. They instruct clients about medication and diets, telephone prescriptions to a pharmacy as directed, take electrocardiograms, and change dressings. They help patients feel at ease in the health care setting. They respect the confidential nature of medical information and promote patient privacy.

The Medical Assisting Externship consists of 160 hours of unpaid training at one of the Moraine Valley affiliated clinical sites. Most externship sites require that students have a completed health/physical form, required immunizations, current CPR certification, HIPAA understanding, health insurance, and a criminal background check and/or drug screening. Students must be

18 years old to begin their externship. They must be prepared to travel to the assigned externship site. Students must achieve a minimum grade of "C" in all prerequisites and required courses to advance within the program.

### Program Accreditation

The Moraine Valley Community College Medical Assistant Program is accredited by the Commission on Accreditation of Allied Health Education Programs upon the recommendation of Medical Assisting Education Review Board.

Commission on Accreditation of Allied Health Education Programs

25400 U.S. Highway 19 North, Suite 158

Clearwater, FL 33763

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

### Certification

Upon completion of the program, graduates will be eligible to challenge the Certified Medical Assistant (CMA) exam administered by the American Association of Medical Assistants. Successfully completing this exam allows the graduate to earn the CMA credential (certified medical assistant).

### Program Requirements

In order to complete the Medical Assisting Program, students must:

Earn a grade of "C" (2.0) or better in each required career course and pass all psychomotor and affective competencies at 100%.

Complete all courses with a MOA prefix at MVCC.

Complete all courses with a MOA prefix within 3 years.

Pass 100% of all psychomotor and affective competencies within three attempts in order to pass the course and progress in the program.

Submit all required clinical documents, including a criminal background check by the due date.

Complete the 160 unpaid hours of clinical externship (MOA-155, Externship) at an affiliated ambulatory care site within four to five weeks, serving on a full time basis.

Provide evidence of completed application to challenge a national certification exam prior to program completion.

Submit a petition to graduate to the college's Records Office.

### Program Calendar

Required career courses must be taken in sequence.

### Required General Education Course

#### 10 credit hours minimum as follows:

BIO-115	Anatomy and Physiology	5
OR		
BIO-180	Human Anatomy & Physiology I	4
AND		
BIO-181	Human Anatomy & Physiology II	4

COM-101	Composition I	3
MTH-109	Math for Allied Health	2

(Note: Take MTH-109 or higher.)

### Required Career Courses

#### 40 credit hours as follows:

IMS-115	Microsoft Office I	3
MOA-115	Clinical Laboratory Procedures	4
MOA-130	Law and Ethics in Healthcare	2
MOA-140	Medical Office Administration	3
MOA-142	Medical Office Finance Systems	3
MOA-144	Pharmacology-Principles/Applications	5
MOA-147	Medical Assistant Clinic Procedures	6
MOA-155	Medical Assistant Externship	3
MOA-156	Medical Assistant Seminar	2
MRT-110	Medical Terminology	3
PHB-110	Principles & Practice of Phlebotomy	6

(Note: MOA-155 must be completed within one year of completing the clinical courses MOA-115, MOA-144, and MOA-147. The 160 unpaid hours of clinical externship is at an affiliated ambulatory care site, usually completed within four to six weeks. Students shall not receive compensation/payment, monetary or otherwise, for the practicum/externship experience.)

### Suggested Schedule

#### Semester 1 (16 credit hours)

BIO-115	Anatomy and Physiology	5
COM-101	Composition I	3
IMS-115	Microsoft Office I	3
MRT-110	Medical Terminology	3
MTH-109	Math for Allied Health	2

(Note: BIO-115 can be replaced by BIO-180 and BIO-181)

(Note: Take MTH-109 or higher.)

#### Semester 2 (14 credit hours)

MOA-130	Law and Ethics in Healthcare	2
MOA-140	Medical Office Administration	3
MOA-142	Medical Office Finance Systems	3
PHB-110	Principles & Practice of Phlebotomy	6

#### Semester 3 (15 credit hours)

MOA-115	Clinical Laboratory Procedures	4
MOA-144	Pharmacology-Principles/Applications	5
MOA-147	Medical Assistant Clinic Procedures	6

#### Semester 4 (5 credit hours)

MOA-155	Medical Assistant Externship	3
MOA-156	Medical Assistant Seminar	2

(Note: Students shall not receive compensation/payment, monetary or otherwise, for the practicum/externship experience MOA-155.)

### Nursing

***This program consists of one degree.***

### Nursing, A.A.S.

#### A.A.S. Degree—72 credit hours

*Curriculum Code 1246*

This program prepares students for nursing careers in hospitals and other health care facilities. Admitted students who wish to earn an Associate in Science degree in addition to an Associate in Applied Science degree should consult with an advisor in the Academic Advising Center.

Students learn to deliver nursing care to people of all ages using principles of the biological, physical and behavioral sciences, plus study how to assess nursing care needs of patients and how to make judgments in planning, implementing and evaluating appropriate nursing care.

This two-year program starts in either the fall or spring of each year and continues for a total of four consecutive semesters, excluding summer. The Nursing Program conducts a rigorous curriculum of lectures, labs and clinicals. Clinicals are conducted on site at a variety of hospitals during the day time or evening with no flexibility in scheduling. Therefore, holding a full-time job while in the program may affect student success and is not recommended. However, general education classes are available morning, afternoon or evening, and can be completed part-time, if necessary.

**For licensed LPNs,** learn about the LPN - RN Transition Program and speak to an academic advisor.

### Employment Outlook

Job opportunities for RNs in all specialties are expected to be excellent. Employment of registered nurses is expected to grow much faster than average for all occupations, and, because the occupation is very large, many new jobs will result. In fact, registered nurses are projected to create the second largest number of new jobs among all occupations. Thousands of job openings also will result from the need to replace experienced nurses who leave the occupation, especially as the median age of the registered nurse population continues to rise.

Much faster-than-average growth will be driven by technological advances in patient care, which permit a greater number of medical problems to be treated, and by an increasing emphasis on preventive care. In addition, the number of older people, who are much more likely than younger people to need nursing care, is projected to grow rapidly.

### Accreditation

Moraine Valley's Nursing Program is approved and licensed by the Illinois Department of Professional Regulation, the Illinois Community College Board, the Illinois Board of Higher Education, and the Illinois Department of Vocational Technical Education.

### Licensure

Program graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN). The Department of Financial and Professional Regulation in Springfield grants licensure for registered nurses. \*\*Upon successful completion of the first year and completion of the nursing elective NUR-165, students will be eligible and

have the option to take the National Council Licensure Examination for Licensed Practical Nurses (NCLEX-PN). This is an option embedded in the MVCC ADN program.

The Department of Financial and Professional Regulation in Springfield grants licensure for registered nurses. Upon successful completion of the NCLEX-RN exam, graduates may apply to the Department of Financial and Professional Regulation for Registered Nurse licensure. Graduating from a state-approved and licensed nursing program guarantees the right to apply to write for the licensing exam.

### Application and Selection Processes

For complete information about the Nursing Program application and selection processes, please refer to the Nursing Program website.

#### Application process

- Full details for the online application process can be found at <https://www.morainevalley.edu/academics/departments/health-sciences/nursing-program/nursing-admission-steps>
- Submit official high school transcripts or GED certificate
- Submit transcripts from other institutions for general education credit transfer consideration
- Complete all prerequisites
- PSY-104 and BIO-119 must have been completed prior to application or in progress the semester of application

#### Selection Process

##### • Ranking score:

Points will be awarded based on:

- Points for cumulative college credit GPA
- Entrance Exam scores in math and science
- BIO-180, BIO-181 and BIO-119 points based on final grade for each of these sciences: "A" = 3 points, "B" = 2 points, "C" = 1 point. The required biology courses must have been completed within five years of program admission.
- IL Certification/Licenses
  - LPN = 6 points
  - CNA = 5 points
  - Paramedic/Military Medic = 4 points
  - MOA/EMT = 2 points

**• Tie breaker:** Date and time the completed nursing application packet was submitted to the records department.

**• Residency:** In-district residents who submit a complete nursing application packet to the Records Department by the application deadline will be admitted in ranking score order, before out-of-district residents

- **Notification:** Applicants will be notified of the status of their selection within three weeks after nursing program application deadline.

### Academic Standing

- Any general education course that applies to the nursing program completed prior to or during enrollment in the program must be completed with a grade of "C" or better.
- As per the Moraine Valley policy, course work may be repeated only twice for a total of three enrollments in a course.

**Fees**—Fees associated with specific nursing courses include use of equipment, some supplies, online learning assessment and remediation, and malpractice insurance if it is a clinical nursing course.

**Health Physical**—Prior to enrollment, admitted students must submit a complete health history and physical form signed by the applicant and physician or nurse practitioner. The health history and physical must be updated every two years. The health physical includes required laboratory tests and immunizations as required by clinical affiliates. This requirement may cost around \$400. Mandatory TB tests, annual flu vaccine, background check, and drug screening are required. Questions about the health physical should be directed to the department chair of Nursing. Health physical forms may be obtained from the Admissions Office. The student is encouraged to maintain a copy of all health physical information submitted to the program. Admission is contingent on your drug screen and background check according to the Nursing Practice Act and our clinical affiliates.

See the ADN rules and regulations for specific information on reporting pregnancy, illness, injury, surgery or need for medications.

**Readmission**—Upon withdrawal or failure to maintain a minimum GPA in the Nursing Program, students seeking readmission must follow the Department of Nursing policies for readmission. The readmission policies are contained in the Nursing rules and regulations that are distributed to every student at orientation and discussed the first day of class.

Students seeking readmission need to:

- Complete and submit an attrition form. (Attrition forms are available from the instructor and should be returned to the department chair/director of Nursing.)
- Meet conditions for readmission as stated on the Nursing Program attrition form, and the program rules and regulations.
- Make sure health record and CPR status meet program requirements.

### Program Requirements

All General Education courses in the Nursing Program must be completed with a grade of "C" or better.

- Responsible for transportation to and from clinical affiliates.
- Responsible for submitting a completed health physical prior to start of program and update results as required—see Health Physical section on this page.
- Responsible for complying with drug screens, criminal background check, etc., as required by clinical affiliates. This will be at the student's expense.
- Provide proof of comprehensive health and accident insurance.
- Responsible for all program fees.
- Responsible for obtaining uniforms.
- Maintain and report proof of current AHA Health Care Provider CPR certification while in program.
- Required to adhere to the Code of Student Conduct. See the Student Rights and Responsibilities (p. 32) section of this catalog.

### Curriculum

#### Required General Education Courses—12 credit hours as follows:

COM-101	Composition I	3
COM-103	Speech Fundamentals	3
PSY-104	Life-Span Developmental Psychology	3
SOC-101	General Sociology	3

#### Required Program Science Courses —12 credit hours as follows:

BIO-119	Introductory Microbiology	4
BIO-180	Human Anatomy & Physiology I	4
BIO-181	Human Anatomy & Physiology II	4

#### Required Career Courses—48 credit hours as follows:

HSC-120	Pharmacology & Disease Processes I	3
HSC-140	Pharmacology & Disease Processes II	2
NUR-140	Nursing Concepts I	4
NUR-141	Nursing Concepts II	3
NUR-142	Nursing Concepts III	3
NUR-150	Nursing Arts I	2
NUR-151	Nursing Arts II	2
NUR-152	Nursing Arts III	1
NUR-160	Nursing Clinical Practice I	2
NUR-161	Nursing Clinical Practice II-OB	2
NUR-162	Nursing Clinical Practice II-MS	2
NUR-240	Nursing Concepts IV	3
NUR-241	Nursing Concepts V	3
NUR-242	Nursing Concepts VI	3
NUR-243	Nursing Concepts VII	3
NUR-250	Nursing Arts IV	2
NUR-251	Advanced Nursing Arts V	1
NUR-260	Nursing Clinical Practice III	2
NUR-261	Nursing Clinical Practice IV	2
NUR-262	Nursing Clinical Practice V	3

#### Electives:

There is no requirement that a student in the program take any elective courses or elective credit hours.

NUR-145	Nursing Enrichment I Special Topics	1
NUR-165	Nursing Transitions I	3
NUR-245	Nursing Enrichment II Special Topics	1

Students must have completed required course prerequisites, be currently enrolled in required course corequisites, and successfully pass all pre- and corequisites to continue in the ADN Program.

**A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency is demonstrated as part of the special admissions requirements for the Nursing program. Students must place into MTH-120 or higher to be admitted into the program.

#### Suggested Schedule

##### Summer (7 credit hours)

BIO-119	Introductory Microbiology	4
PSY-104	Life-Span Developmental Psychology	3

(BIO-119 and PSY-104: full semester)

##### Semester 1 (17 credit hours)

BIO-180	Human Anatomy & Physiology I	4
HSC-120	Pharmacology & Disease Processes I	3
NUR-140	Nursing Concepts I	4
NUR-150	Nursing Arts I	2
NUR-151	Nursing Arts II	2
NUR-160	Nursing Clinical Practice I	2

(HSC-120 and BIO-180: full semester)

(NUR-140 and NUR-150: 1st 8 weeks)

(NUR-151 and NUR-160: 2nd 8 weeks)

##### Semester 2 (17 credit hours)

BIO-181	Human Anatomy & Physiology II	4
HSC-140	Pharmacology & Disease Processes II	2
NUR-141	Nursing Concepts II	3
NUR-142	Nursing Concepts III	3
NUR-152	Nursing Arts III	1
NUR-161	Nursing Clinical Practice II-OB	2
NUR-162	Nursing Clinical Practice II-MS	2

(HSC-140 and BIO-181: full semester)

(NUR-141, NUR-152 and NUR-161: 1st 8 weeks)

(NUR-142 and NUR-162: 2nd 8 weeks)

Note: Semesters 1 and 2 constitute the LPN certificate program.

##### Semester 3 (15 credit hours)

COM-101	Composition I	3
NUR-240	Nursing Concepts IV	3
NUR-241	Nursing Concepts V	3
NUR-250	Nursing Arts IV	2
NUR-260	Nursing Clinical Practice III	2
NUR-261	Nursing Clinical Practice IV	2

(COM-101 and NUR-250: full semester)

(NUR-240 and NUR-260: 1st 8 weeks)

(NUR-241 and NUR-261: 2nd 8 weeks)

##### Semester 4 (16 credit hours)

COM-103	Speech Fundamentals	3
NUR-242	Nursing Concepts VI	3
NUR-243	Nursing Concepts VII	3
NUR-251	Advanced Nursing Arts V	1

NUR-262	Nursing Clinical Practice V	3
SOC-101	General Sociology	3
(COM-103 and SOC-101: full semester)		
(NUR-242 and NUR-262: 1st 8 weeks)		
(NUR-243 and NUR-251: 2nd 8 weeks)		

#### Office Systems and Applications

***This program consists of one degree and eight certificates.***

#### Office Systems and Applications, A.A.S.

##### A.A.S. Degree—64 credit hours

###### Curriculum Code 1257

This program prepares students for careers in administrative support and first-line supervision. Depending upon a student's area of concentration, graduates will qualify for positions as administrative assistant, legal office assistant, medical secretary, graphics and desktop publisher, web design assistant, office manager, or help desk specialist.

Students completing this program are expected to possess excellent keyboarding, proofreading, and document formatting skills; advanced computer application skills; strong communication skills; broad administrative support skills; excellent interpersonal skills; flexibility; and professionalism. Students completing this program may be expected to supervise lower-level clerical staff.

Students with work experience and advanced skills should contact the program coordinator for assessment and course substitution information. Students without prerequisite skills are expected to take the necessary additional courses. An important feature of this program is the internship/seminar component that provides on-the-job training and offers the student new to the field an opportunity to work in and evaluate a professional setting. The employer also can evaluate the student for possible full-time employment upon graduation. Students wishing to enroll in the internship/seminar should contact the internship coordinator prior to enrollment.

Program prerequisite: keyboarding skill of 40 net words per minute by touch. Students who need to reach this skill level must enroll in OSA-100 Keyboarding & Basic Formatting (3 credit hours).

#### Required General Education Courses

##### 16 credit hours as follows:

BUS-120	Business Mathematics	3
OR		
MTH-120	General Education Mathematics	3
COM-101	Composition I	3
COM-103	Speech Fundamentals	3

(Note: Take MTH-120 or higher. MTH-120 recommended for transfer students.)

**A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

**Select 4 credit hours from Physical and Life Sciences:**

BIO, CHM, EAS, GEL, NAT, PHS, PHY

**Select 3 credit hours from Social/Behavioral Sciences or Humanities and Fine Arts:**

ANT, ARB, ART, ECO, FRE, GEO, HIS, HUM, LIT, MUS, PHI, PSC, PSY, SOC, SSC, SPA, THE

**Required Career Courses**

**30 credit hours as follows:**

IMS-115	Microsoft Office I	3
MIS-111	Internet Technologies	3
MIS-146	Operating Systems	3
OSA-103	Office Language Skills	3
OSA-122	Microsoft Excel	3
OSA-145	Microsoft Word	3
OSA-230	Microsoft PowerPoint & Presentations	3
OSA-249	QuickBooks for Office Professionals	3
OSA-257	Microsoft Access	3
OSA-258	Internship	3

**Concentrations**

Students may select Administrative Assistant, Graphics and Desktop Publisher, Help Desk Specialist, Legal Office Assistant, Medical Secretary, Office Manager, or Web Design Assistant concentration.

**Administrative Assistant —18 credit hours**

**Required Special Career Courses—15 credit hours as follows:**

OSA-102	Document Formatting	3
OSA-104	Keyboarding Speed and Accuracy	1
OSA-243	Business Writing	2
OSA-246	Microsoft Office Integration	3
OSA-250	Records Management	2
OSA-255	Administrative Office Procedures	3
OSA-260	Seminar	1

(Note: OSA-104 may need to be repeated. Minimum skill level recommended for employment is 50 wpm.)

**Electives—Select 3 credit hours from the following:**

BUS-100	Introduction to Business	3
LSC-110	Fundamentals of Meeting Planning	3
MIS-141	Website Development: HTML & CSS	3
OSA-116	Microsoft Outlook	1
OSA-225	Microsoft Publisher	3
OSA-232	Introduction to Adobe Creative Suite	3

**Graphics and Desktop Publisher—18 credit hours**

**Required Special Career Courses—18 credit hours as follows:**

MIS-141	Website Development: HTML & CSS	3
OSA-125	Introduction to Website Design	3
OSA-232	Introduction to Adobe Creative Suite	3
OSA-234	Adobe Illustrator	3
OSA-235	Adobe InDesign	3
OSA-236	Adobe Photoshop	3

**Help Desk Specialist—18 credit hours**

**Required Special Career Courses—15 credit hours as follows:**

COM-203	Interpersonal Communication	3
LAN-103	Security Awareness	1
LAN-111	IT Essentials - A+	3
LAN-121	Network Essentials	3
LAN-122	Network Services	4
OSA-116	Microsoft Outlook	1

**Electives—Select 3 credit hours from the following:**

LAN-112	Managing IT - A+	3
OSA-232	Introduction to Adobe Creative Suite	3

**Legal Office Assistant —18 credit hours**

**Required Special Career Courses—16 credit hours as follows:**

BUS-136	Business Law	3
OSA-102	Document Formatting	3
OSA-104	Keyboarding Speed and Accuracy	1
OSA-246	Microsoft Office Integration	3
OSA-252	Legal Documents and Terminology	3
OSA-255	Administrative Office Procedures	3

(Note: OSA-104 may need to be repeated. Minimum skill level recommended for employment is 50 wpm.)

**Electives—Select 2 credit hours from the following:**

OSA-116	Microsoft Outlook	1
OSA-225	Microsoft Publisher	3
OSA-232	Introduction to Adobe Creative Suite	3
OSA-243	Business Writing	2
OSA-250	Records Management	2
OSA-260	Seminar	1

**Medical Secretary—18 credit hours**

**Required Special Career Courses—18 credit hours as follows:**

MRT-110	Medical Terminology	3
MRT-111	Health Information Management	3
OSA-100	Keyboarding & Basic Formatting	1-3
OSA-102	Document Formatting	3
OSA-104	Keyboarding Speed and Accuracy	1
OSA-116	Microsoft Outlook	1
OSA-255	Administrative Office Procedures	3

(Note: OSA-100 must be taken as a 3 credit-hour course.)

(Note: OSA-104 may need to be repeated. Minimum skill level recommended for employment is 50 wpm.)

**Office Manager —18 credit hours**

**Required Special Career Courses—15 credit hours as follows:**

BUS-100	Introduction to Business	3
BUS-231	Principles of Management	3
LSC-110	Fundamentals of Meeting Planning	3
MIS-210	Project Management	3
OSA-255	Administrative Office Procedures	3

**Electives—Select 3 credit hours from the following:**

MIS-141	Website Development: HTML & CSS	3
OSA-116	Microsoft Outlook	1

OSA-232	Introduction to Adobe Creative Suite	3
OSA-243	Business Writing	2
OSA-246	Microsoft Office Integration	3

#### Web Design Assistant —18 credit hours

##### Required Special Career Courses—15 credit hours as follows:

MIS-141	Website Development: HTML & CSS	3
OSA-125	Introduction to Website Design	3
OSA-135	Website Applications	3
OSA-234	Adobe Illustrator	3
OSA-236	Adobe Photoshop	3

##### Electives—Select 3 credit hours from the following:

MIS-105	Programming Principles	3
MIS-241	Adv. Website Dev: Javascript & jQuery	3
OSA-232	Introduction to Adobe Creative Suite	3
OSA-246	Microsoft Office Integration	3

#### Suggested Schedule

##### Semester 1 (15 credit hours)

COM-101	Composition I	3
IMS-115	Microsoft Office I	3
OSA-103	Office Language Skills	3
BUS-120	Business Mathematics	3
OR		
MTH-120	General Education Mathematics	3
___ - ___	Humanities and Fine Arts Elective	3
OR		
___ - ___	Social and Behavioral Sciences Elective	3

(Note: Take MTH-120 or higher)

##### Semester 2 (18 credit hours)

COM-103	Speech Fundamentals	3
MIS-146	Operating Systems	3
OSA-122	Microsoft Excel	3
OSA-145	Microsoft Word	3
___ - ___	Elective: Career course from Concentration	3
___ - ___	Elective: Career course from Concentration	3

##### Semester 3 (16 credit hours)

MIS-111	Internet Technologies	3
OSA-249	QuickBooks for Office Professionals	3
___ - ___	Elective: Career course from Concentration	3
___ - ___	Elective: Career course from Concentration	3
___ - ___	Physical and Life Sciences Elective	4

##### Semester 4 (15 credit hours)

OSA-230	Microsoft PowerPoint & Presentations	3
OSA-257	Microsoft Access	3
OSA-258	Internship	3
___ - ___	Elective: Career course from Concentration	3
___ - ___	Elective: Career course from Concentration	3

#### Administrative Assistant, Certificate

##### Certificate—35 credit hours

###### Curriculum Code 1315

This program prepares students for positions as administrative assistants, executive assistants, and secretaries. Graduates acquire strong skills in computer applications, written communications, and office

procedures. Keyboarding, proofreading, document formatting, and language skills are emphasized.

Program prerequisite: keyboarding skill of 40 net words per minute by touch. Students who need to reach this skill level must enroll in OSA-100 Keyboarding & Basic Formatting (3 credit hours).

##### Required Career Courses

###### 33 credit hours as follows:

IMS-115	Microsoft Office I	3
OSA-102	Document Formatting	3
OSA-103	Office Language Skills	3
OSA-104	Keyboarding Speed and Accuracy	1
OSA-116	Microsoft Outlook	1
OSA-122	Microsoft Excel	3
OSA-145	Microsoft Word	3
OSA-230	Microsoft PowerPoint & Presentations	3
OSA-246	Microsoft Office Integration	3
OSA-249	QuickBooks for Office Professionals	3
OSA-255	Administrative Office Procedures	3
OSA-257	Microsoft Access	3
OSA-260	Seminar	1

(Note: OSA-104 may need to be repeated. Minimum skill level recommended for employment is 50 wpm.)

##### Electives

###### Select at least 2 credit hours from the following:

BUS-100	Introduction to Business	3
LSC-110	Fundamentals of Meeting Planning	3
MIS-111	Internet Technologies	3
MIS-141	Website Development: HTML & CSS	3
MIS-146	Operating Systems	3
OSA-225	Microsoft Publisher	3
OSA-232	Introduction to Adobe Creative Suite	3
OSA-243	Business Writing	2
OSA-250	Records Management	2
OSA-258	Internship	3

##### Suggested Schedule

###### Semester 1 (10 credit hours)

IMS-115	Microsoft Office I	3
OSA-102	Document Formatting	3
OSA-103	Office Language Skills	3
OSA-104	Keyboarding Speed and Accuracy	1

###### Semester 2 (7 credit hours)

OSA-116	Microsoft Outlook	1
OSA-122	Microsoft Excel	3
OSA-145	Microsoft Word	3

###### Semester 3 (12 credit hours)

OSA-230	Microsoft PowerPoint & Presentations	3
OSA-246	Microsoft Office Integration	3
OSA-249	QuickBooks for Office Professionals	3
OSA-255	Administrative Office Procedures	3

###### Semester 4 (6 credit hours)

OSA-257	Microsoft Access	3
OSA-260	Seminar	1
___ - ___	Elective	2

(Note: For elective, select from program elective list.)

## Data Entry, Certificate

### Certificate—7 credit hours

#### Curriculum Code 1317

This program prepares students to utilize a keyboard to enter data from source documents into a computer, with students completing tasks such as entering alphabetic, numeric, or symbolic keystrokes. Students learn to compile, sort, and verify the accuracy of data to be entered. Keyboarding accuracy is stressed.

#### Required Career Courses

##### 7 credit hours as follows:

IMS-115	Microsoft Office I	3
OSA-100	Keyboarding & Basic Formatting	1-3
OSA-104	Keyboarding Speed and Accuracy	1

(Note: OSA-100 must be taken for 3 credit hours.)

(Note: OSA-104 may need to be repeated. Minimum skill level recommended for employment is 50 wpm.)

#### Suggested Schedule

##### Semester 1 (7 credit hours)

IMS-115	Microsoft Office I	3
OSA-100	Keyboarding & Basic Formatting	1-3
OSA-104	Keyboarding Speed and Accuracy	1

(Note: OSA-100 must be taken for 3 credit hours.)

## Graphics and Desktop Publishing, Certificate

### Certificate—15 credit hours

#### Curriculum Code 1312

This program provides skill development in beginning-level desktop publishing. Students utilize software such as Microsoft Publisher, Adobe Photoshop, Adobe Illustrator, and Adobe InDesign. This program is designed for the experienced computer user who possesses strong skills in Microsoft Windows navigation and computer application packages. It is appropriate for students who have earned a degree previously or who can prove substantial work experience. Students who are interested in beginning a career in graphics or desktop publishing and do not possess these prerequisite skills should meet with the department chair or program coordinator to plan appropriate course selections.

#### Required Career Courses

##### 15 credit hours as follows:

OSA-225	Microsoft Publisher	3
OSA-232	Introduction to Adobe Creative Suite	3
OSA-234	Adobe Illustrator	3
OSA-235	Adobe InDesign	3
OSA-236	Adobe Photoshop	3

#### Suggested Schedule

##### Semester 1 (6 credit hours)

OSA-232	Introduction to Adobe Creative Suite	3
OSA-234	Adobe Illustrator	3

##### Semester 2 (9 credit hours)

OSA-225	Microsoft Publisher	3
OSA-235	Adobe InDesign	3
OSA-236	Adobe Photoshop	3

## Help Desk Specialist, Certificate

### Certificate—33 credit hours

#### Curriculum Code 1311

This program prepares students for entry-level positions in desktop support for PC applications. Students acquire hardware and software knowledge and customer service skills necessary to troubleshoot and resolve basic PC and applications problems. They may provide assistance concerning the use of computer hardware and software including printing, installing hardware and software, application programs, electronic mail, and operating systems. Students are strongly encouraged to earn A+, Network+, and Microsoft Office Specialist certifications. Employers seek computer specialists who possess a strong background in fundamental computer skills, combined with good interpersonal and communication skills.

#### Required Career Courses

##### 33 credit hours as follows:

COM-203	Interpersonal Communication	3
IMS-115	Microsoft Office I	3
IMS-215	Microsoft Office II	3
LAN-103	Security Awareness	1
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
LAN-121	Network Essentials	3
LAN-122	Network Services	4
MIS-111	Internet Technologies	3
MIS-146	Operating Systems	3
OSA-116	Microsoft Outlook	1
OSA-232	Introduction to Adobe Creative Suite	3

#### Suggested Schedule

##### Semester 1 (10 credit hours)

IMS-115	Microsoft Office I	3
LAN-103	Security Awareness	1
MIS-111	Internet Technologies	3
MIS-146	Operating Systems	3

##### Semester 2 (12 credit hours)

IMS-215	Microsoft Office II	3
LAN-111	IT Essentials - A+	3
LAN-112	Managing IT - A+	3
OSA-232	Introduction to Adobe Creative Suite	3

##### Semester 3 (11 credit hours)

COM-203	Interpersonal Communication	3
LAN-121	Network Essentials	3
LAN-122	Network Services	4
OSA-116	Microsoft Outlook	1

## Legal Office Assistant, Certificate

### Certificate—40 credit hours

#### Curriculum Code 1316

This program prepares students for positions as administrative assistants in a legal office. Graduates are skilled in office applications with an emphasis on advanced word processing, legal terminology and legal procedures. Graduates of this program must possess a high degree of professionalism, as well as superior keyboarding, word processing, language skills, and proofreading skills.

Program prerequisite: keyboarding skill of 40 net words per minute by touch. Students who need to reach this skill level must enroll in OSA-100 Keyboarding & Basic Formatting (3 credit hours).

#### Required Career Courses

##### 38 credit hours as follows:

BUS-136	Business Law	3
IMS-115	Microsoft Office I	3
OSA-102	Document Formatting	3
OSA-103	Office Language Skills	3
OSA-104	Keyboarding Speed and Accuracy	1
OSA-116	Microsoft Outlook	1
OSA-122	Microsoft Excel	3
OSA-145	Microsoft Word	3
OSA-230	Microsoft PowerPoint & Presentations	3
OSA-243	Business Writing	2
OSA-246	Microsoft Office Integration	3
OSA-252	Legal Documents and Terminology	3
OSA-255	Administrative Office Procedures	3
OSA-257	Microsoft Access	3
OSA-260	Seminar	1

(Note: OSA-104 may need to be repeated. Minimum skill level recommended for employment is 50 wpm.)

#### Electives

##### Select at least 2 credit hours from the following:

MIS-111	Internet Technologies	3
MIS-146	Operating Systems	3
OSA-225	Microsoft Publisher	3
OSA-232	Introduction to Adobe Creative Suite	3
OSA-249	QuickBooks for Office Professionals	3
OSA-250	Records Management	2
OSA-258	Internship	3

#### Suggested Schedule

##### Semester 1 (13 credit hours)

BUS-136	Business Law	3
IMS-115	Microsoft Office I	3
OSA-102	Document Formatting	3
OSA-103	Office Language Skills	3

OSA-104 Keyboarding Speed and Accuracy 1

##### Semester 2 (12 credit hours)

OSA-116	Microsoft Outlook	1
OSA-122	Microsoft Excel	3
OSA-145	Microsoft Word	3
OSA-243	Business Writing	2
OSA-252	Legal Documents and Terminology	3

##### Semester 3 (9-10 credit hours)

OSA-230	Microsoft PowerPoint & Presentations	3
OSA-255	Administrative Office Procedures	3
OSA-260	Seminar	1

—	Elective	2-3
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(Note: For elective, select from program elective list.)

##### Semester 4 (6 credit hours)

OSA-246	Microsoft Office Integration	3
OSA-257	Microsoft Access	3

## Medical Secretary, Certificate

### Certificate—33 credit hours

#### Curriculum Code 1318

This program prepares students for administrative assistant positions in medical offices or in health-related industries. Students gain knowledge of administrative and receptionist duties, medical transcription, and data entry. They will be prepared to produce reports, schedule appointments, answer telephones, and interact with vendors and patients. Familiarity with medical terminology, filing procedures, and computer applications is included.

#### Required Career Courses

##### 33 credit hours as follows:

IMS-115	Microsoft Office I	3
MRT-110	Medical Terminology	3
MRT-111	Health Information Management	3
OSA-100	Keyboarding & Basic Formatting	1-3
OSA-102	Document Formatting	3
OSA-103	Office Language Skills	3
OSA-104	Keyboarding Speed and Accuracy	1
OSA-116	Microsoft Outlook	1
OSA-122	Microsoft Excel	3
OSA-145	Microsoft Word	3
OSA-230	Microsoft PowerPoint & Presentations	3
OSA-255	Administrative Office Procedures	3
OSA-260	Seminar	1

(Note: OSA-100 must be taken as a 3 credit-hour course.)

(Note: OSA-104 may need to be repeated. Minimum skill level recommended for employment is 50 wpm.)

#### Suggested Schedule

##### Semester 1 (10 credit hours)

IMS-115	Microsoft Office I	3
OSA-102	Document Formatting	3
OSA-103	Office Language Skills	3
OSA-104	Keyboarding Speed and Accuracy	1

##### Semester 2 (10 credit hours)

MRT-110	Medical Terminology	3
OSA-116	Microsoft Outlook	1
OSA-122	Microsoft Excel	3
OSA-145	Microsoft Word	3

##### Semester 3 (6 credit hours)

MRT-111	Health Information Management	3
OSA-230	Microsoft PowerPoint & Presentations	3

##### Semester 4 (7 credit hours)

OSA-100	Keyboarding & Basic Formatting	1-3
OSA-255	Administrative Office Procedures	3
OSA-260	Seminar	1

(Note: OSA-100 must be taken as a 3 credit-hour course.)

## Microsoft Office Specialist, Certificate

### Certificate—22 credit hours

#### Curriculum Code 1456

This program is appropriate for any individual who wishes to become proficient in computer applications to further advance his or her current position or to open doors to new opportunities in the workplace. This certificate may be applied to the Administrative Assistant certificate and the A.A.S. degree in Office Systems and Applications. Students pursuing certificates and degrees in business should consider this certificate as well. Courses in this certificate prepare students for Microsoft Office Specialist certification.

Program prerequisites: keyboarding skill of 40 nwpm by touch. Students who need to reach this skill level must enroll in OSA-100 (3 credit), Keyboarding & Basic Formatting. Students with little or no knowledge of microcomputers should also enroll in IMS-100, Personal Computer Basics.

#### Required Career Courses

##### 22 credit hours as follows:

IMS-115	Microsoft Office I	3
OSA-116	Microsoft Outlook	1
OSA-122	Microsoft Excel	3
OSA-145	Microsoft Word	3
OSA-225	Microsoft Publisher	3
OSA-230	Microsoft PowerPoint & Presentations	3
OSA-246	Microsoft Office Integration	3
OSA-257	Microsoft Access	3

#### Suggested Schedule

##### Semester 1 (3 credit hours)

IMS-115	Microsoft Office I	3
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##### Semester 2 (6 credit hours)

OSA-145	Microsoft Word	3
OSA-230	Microsoft PowerPoint & Presentations	3

##### Semester 3 (7 credit hours)

OSA-116	Microsoft Outlook	1
OSA-122	Microsoft Excel	3
OSA-257	Microsoft Access	3

##### Semester 4 (6 credit hours)

OSA-225	Microsoft Publisher	3
OSA-246	Microsoft Office Integration	3

## Receptionist/Office Assistant, Certificate

### Certificate—19 credit hours

#### Curriculum Code 1214

This program prepares students for positions as receptionists and office assistants. Students learn proper techniques and procedures for greeting visitors, handling incoming calls, sorting and routing incoming materials, and performing general administrative duties. Filing, document formatting, and language skills are emphasized.

Program prerequisite: keyboarding skill of 40 nwpm by touch. Students who need to reach this skill level must

enroll in OSA-100 Keyboarding & Basic Formatting (3 credit hours).

#### Required Career Courses

##### 19 credit hours minimum as follows:

IMS-100	Personal Computer Basics	1
IMS-115	Microsoft Office I	3
IMS-108	Internet Basics	1
OR		
MIS-111	Internet Technologies	3
OSA-102	Document Formatting	3
OSA-103	Office Language Skills	3
OSA-104	Keyboarding Speed and Accuracy	1
OSA-116	Microsoft Outlook	1
OSA-250	Records Management	2
OSA-255	Administrative Office Procedures	3
OSA-260	Seminar	1

(Note: OSA-104 may need to be repeated. Minimum skill level recommended for employment is 50 wpm.)

#### Suggested Schedule

##### Semester 1 (7 credit hours)

IMS-100	Personal Computer Basics	1
IMS-115	Microsoft Office I	3
OSA-103	Office Language Skills	3

##### Semester 2 (7-9 credit hours)

IMS-108	Internet Basics	1
OR		
MIS-111	Internet Technologies	3
OSA-102	Document Formatting	3
OSA-104	Keyboarding Speed and Accuracy	1
OSA-250	Records Management	2

##### Semester 3 (5 credit hours)

OSA-116	Microsoft Outlook	1
OSA-255	Administrative Office Procedures	3
OSA-260	Seminar	1

## Patient Care Technician

*This program consists of one certificate.*

## Patient Care Technician, Certificate

### Certificate—21 credit hours

#### Curriculum Code 1506

This program prepares students to function in the role of a patient care technician (PCT) in an acute care setting. The program provides students with a basic foundation in healthcare terminology, nursing assistant skills, cardiac monitoring set-up and techniques, phlebotomy, and venipuncture skills. Graduates of the PCT certificate will be eligible to challenge the national certification exam.

#### Required Career Courses

**21 credit hours as follows:**

HSC-150	Basic Nurse Assistant Training	7
MRT-110	Medical Terminology	3
PHB-110	Principles & Practice of Phlebotomy	6
PHB-111	Phlebotomy Clinical Practice Seminar	2
PHB-112	Phlebotomy Clinical Practice	2
RES-200	Basic EKG Application and Theory	1

**Suggested Schedule****Semester 1 (10 credit hours)**

HSC-150	Basic Nurse Assistant Training	7
MRT-110	Medical Terminology	3

**Semester 2 (7 credit hours)**

PHB-110	Principles & Practice of Phlebotomy	6
RES-200	Basic EKG Application and Theory	1

**Semester 3 (4 credit hours)**

PHB-111	Phlebotomy Clinical Practice Seminar	2
PHB-112	Phlebotomy Clinical Practice	2

**Phlebotomy (Blood Collection)***This program consists of one certificate.***Phlebotomy (Blood Collection), Certificate****Certificate—13 credit hours****Curriculum Code 1306**

This program presents the basics of phlebotomy. Laboratory scientists, technologists and technicians require blood specimens that have been obtained promptly, efficiently and safely by qualified phlebotomists. The phlebotomist is an integral member of the health care team. This individual must be well trained in all aspects of specimen collection and processing. The phlebotomist must also be able to maintain high standards of professionalism with patients and their families. To ensure quality training is available to persons interested in this field of work, Moraine Valley has developed a training program in phlebotomy. Employment opportunities for phlebotomists are widespread. The growth is driven by the increased medical needs of an aging population and more diagnostic testing. Locally, the labor market is growing, primarily due to the increase in home health care services and employment opportunities with contract laboratory organizations.

**Accreditation/Approval**

The Phlebotomy Program curriculum is approved by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). Moraine Valley's Phlebotomy Program is one of four programs in the nation to earn NAACLS charter approval.

**Certification**

Program graduates are eligible to take the phlebotomy certification examination of their choice.

**Program Requirements**

- In order to register for PHB-110, students must pass the prerequisite course, MRT-110 Medical Terminology, with a minimum passing grade of "C" or higher.

- A student must be 18 years of age or older before the start of the semester.

- Students must achieve a minimum passing grade of "C" (2.0) in both lecture and laboratory portions of Principles and Practice of Phlebotomy (PHB-110).

- Students must submit a completed history and physical form signed by a physician prior to clinical assignment.

- Students are responsible for transportation to and from clinical affiliates.

- Students are responsible for securing their own uniform for clinical rotations.

- A complete US high school transcript showing date of graduation or a GED certificate must be submitted to the coordinator prior to completion of the program.

- A liability insurance fee is required.

- The college requires that students have minimal health insurance coverage during the clinical experience.

- A criminal background check must be successfully completed before a clinical assignment is made.

- A specific 10-panel drug screening must be successfully completed before a clinical assignment is made.

- A student must be 18 years of age or older before registering for PHB-110.

- Students must complete the Moraine Valley HIPAA training session.

**Program Calendar**

Students may complete the program in any two consecutive semesters. Students may opt to complete their clinical rotations at any time within one year of their completion of PHB-110.

**Required Career Courses****13 credit hours as follows:**

MRT-110	Medical Terminology	3
PHB-110	Principles & Practice of Phlebotomy	6
PHB-111	Phlebotomy Clinical Practice Seminar	2
PHB-112	Phlebotomy Clinical Practice	2

**Suggested Schedule****Semester 1 (3 credit hours)**

MRT-110	Medical Terminology	3
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**Semester 2 (6 credit hours)**

PHB-110	Principles & Practice of Phlebotomy	6
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**Semester 3 (4 credit hours)**

PHB-111	Phlebotomy Clinical Practice Seminar	2
PHB-112	Phlebotomy Clinical Practice	2

**Radiologic Technology****Radiologic Technology, A.A.S.***This program consists of one degree.***A.A.S. Degree—72 credit hours**

### Curriculum Code 1240

This program prepares graduates for professional careers in the medical health field. Graduates are eligible for employment in hospitals, clinics and physicians' offices. The program includes instruction in radiologic technique theory, patient positioning for diagnostic procedures and progressive clinical experience.

Admitted students who wish to earn an Associate in Science degree in addition to an Associate in Applied Science degree should consult with an advisor in the Academic Advising Center.

Employment of radiologic technologists is expected to grow as fast as the average for all occupations, as the health care industry grows and because of the vast clinical potential of diagnostic imaging and therapeutic technology. However, while a significant increase in radiologic technologist employment is anticipated, job seekers are likely to face competition from many other qualified applicants for most openings.

#### Accreditation

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

#### Admission Requirements

See Admission to Health Science Programs in the Admission and Registration section.

**Health Physical/Re-Application** - Prior to enrollment, admitted students must submit a completed health history and physical form including drug screening signed by a physician.

Applicants not selected for one starting class are individually responsible for reactivating and updating their application file for subsequent starting classes. Re-applicants must complete a new application form and submit it to the Admissions Office during the applicable time period.

#### Certification

Program graduates are eligible to take the national examination of the American Registry of Radiologic Technologists.

#### Program Requirements

- Students must earn a grade of "C" (2.0) or better in each required career course (theory and clinical).
- Students are responsible for transportation to and from clinical affiliates.
- Students are responsible for securing uniforms.
- A liability insurance fee is required.
- The college requires that students have minimal health insurance coverage.
- Successful completion of a criminal background check.

#### Program Calendar

The Radiologic Technology program requires a full-time commitment. This 24-month program starts in June of each

year and includes two academic years and two summer sessions. The required biology and mathematics courses must be completed within five years of program admission.

#### Required General Education Courses

##### 22 credit hours as follows:

COM-101	Composition I	3
COM-103	Speech Fundamentals	3
BIO-180	Human Anatomy & Physiology I	4
BIO-181	Human Anatomy & Physiology II	4
MTH-109	Math for Allied Health	2

(Note: MTH-139 or higher will meet the MTH-109 requirement.)

**A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

#### Select 3 credit hours from Social/Behavioral Sciences:

ANT, ECO, GEO, HIS, PSC, PSY, SOC, SSC

#### Select 3 credit hours from Humanities and Fine Arts:

ARB, ART, FRE, HUM, LIT, MUS, PHI, SPA, THE

#### Required Career Courses

##### 50 credit hours as follows:

IMS-115	Microsoft Office I	3
MRT-110	Medical Terminology	3
RAD-101	Health Care in Medical Imaging	1
RAD-102	Principles of Imaging	3
RAD-103	Ionizing Radiation Protection	2
RAD-104	Radiographic Procedures I	3
RAD-105	Image Analysis I	1
RAD-106	Image Analysis II	1
RAD-107	Digital: Acquisition and Display	2
RAD-108	Radiographic Procedures II	3
RAD-110	Radiologic Clinical Practice I	1
RAD-111	Radiologic Clinical Practice II	3
RAD-202	Physics: Product and Characteristics	3
RAD-204	Radiographic Procedures III	2
RAD-205	Radiologic Pathology	1
RAD-206	Medical Imaging Equipment	3
RAD-207	Radiology Science, Ethics, and Law	1
RAD-208	Introduction to Computed Tomography	1
RAD-209	Radiation Biology	2
RAD-210	Radiologic Clinical Practice III	3
RAD-211	Radiologic Clinical Practice IV	4
RAD-212	Radiologic Clinical Practice V	4

#### Suggested Schedule

**Summer (9 credit hours)**

IMS-115	Microsoft Office I	3
MRT-110	Medical Terminology	3
MTH-109	Math for Allied Health	2
RAD-101	Health Care in Medical Imaging	1

**Semester 1 Fall (14 credit hours)**

BIO-180	Human Anatomy & Physiology I	4
RAD-102	Principles of Imaging	3
RAD-103	Ionizing Radiation Protection	2
RAD-104	Radiographic Procedures I	3
RAD-105	Image Analysis I	1
RAD-110	Radiologic Clinical Practice I	1

**Semester 2 Spring (13 credit hours)**

BIO-181	Human Anatomy & Physiology II	4
RAD-106	Image Analysis II	1
RAD-107	Digital: Acquisition and Display	2
RAD-108	Radiographic Procedures II	3
RAD-111	Radiologic Clinical Practice II	3

**Summer (12 credit hours)**

COM-101	Composition I	3
RAD-202	Physics: Product and Characteristics	3
RAD-210	Radiologic Clinical Practice III	3
—	Social and Behavioral Sciences Elective	3

**Semester 3 Fall (13 credit hours)**

RAD-204	Radiographic Procedures III	2
RAD-205	Radiologic Pathology	1
RAD-206	Medical Imaging Equipment	3
RAD-211	Radiologic Clinical Practice IV	4
—	Humanities and Fine Arts Elective	3

**Semester 4 Spring (11 credit hours)**

COM-103	Speech Fundamentals	3
RAD-207	Radiology Science, Ethics, and Law	1
RAD-208	Introduction to Computed Tomography	1
RAD-209	Radiation Biology	2
RAD-212	Radiologic Clinical Practice V	4

**Recreation Therapy**

**This program consists of one degree.**

**Recreation Therapy, A.A.S.****A.A.S. Degree—63 credit hours****Curriculum Code 1259**

This program prepares students for a professional career in recreation therapy. Recreation Therapy professionals help people in community and clinical settings. Recreation therapists plan, and implement therapeutic-based treatment programs for people with disabilities, injuries, or illnesses. These therapists use a variety of modalities including arts and crafts, drama, music, dance, sports, aquatics and community outings to help maintain or improve a person's physical, social, cognitive, spiritual and emotional well-being. Graduates are eligible for employment in physical rehabilitation centers, medical rehabilitation centers, hospitals, long-term care, skilled care, adult day care, alcohol and drug treatment centers, special recreation

associations, and mental health agencies. According to the Bureau of Labor Statistics employment of recreational therapists is projected to grow 12 percent from 2014 to 2024, faster than the average of all occupations. As the large baby-boom generation ages, they will need recreational therapists to help treat age-related injuries and illnesses and to help them maintain a healthy, active lifestyle. Hospitals will provide a large number of recreation therapy jobs, with additional jobs provided by long-term rehabilitation and psychiatric hospitals. Continued growth is expected in community residential facilities, park districts and day care programs for people with disabilities.

**Required General Education Courses****26 credit hours as follows:**

BIO-115	Anatomy and Physiology	5
COM-101	Composition I	3
COM-102	Composition II	3
COM-103	Speech Fundamentals	3
MTH-120	General Education Mathematics	3
PSY-101	Introduction to Psychology	3
SOC-101	General Sociology	3

(Note: Take MTH-120 or higher.)

**A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" or better in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

**Select 3 credit hours from Humanities and Fine Arts:**

ARB, ART, FRE, HUM, LIT, MUS, PHI, SPA, THE

**Required Career Courses****27 credit hours as follows:**

REC-101	Rec Therapy and Sport Management	3
REC-102	Older Adult Recreation and Wellness	3
REC-180	Perceptual Motor Development	3
REC-182	Recreation for Special Populations	3
REC-201	Applied Leadership Essentials	3
REC-205	Professional Issues	2
THR-150	Recreation Therapy Techniques I	3
THR-152	Recreation Therapy Techniques II	3
THR-233	Recreation Therapy Practicum	3
THR-237	Recreation Therapy Seminar	1

**Electives - Select 10 credit hours from the following:****Electives to enhance skills identified to be important in the field.**

ADC-101	Introduction to Addiction Counseling	3
CRJ-107	Juvenile Delinquency & Procedures	3
MRT-110	Medical Terminology	3
PEH-160	Fundamentals of Human Movement	3
PEH-170	First Aid	3

PEH-171	A Healthy Lifestyle and You	3
PEH-190	Outdoor Recreation & Nature Study	3
PEH-____	PEH-105, 107, 108, 120, or 140	1
<b>Electives to ease transfer for those interested students.</b>		
PSY-104	Life-Span Developmental Psychology	3
PSY-105	Child Psychology	3
PSY-106	Adolescent Psychology	3
PSY-205	Abnormal Psychology	3
PSY-210	Adult Psychology	3
SPA-101	Spanish I	4
SPA-102	Spanish II	4

### Suggested Schedule

#### Semester 1 (15 credit hours)

COM-101	Composition I	3
PSY-101	Introduction to Psychology	3
REC-101	Rec Therapy and Sport Management	3
THR-150	Recreation Therapy Techniques I	3
____-____	Career Elective	3

#### Semester 2 (16 credit hours)

COM-102	Composition II	3
REC-102	Older Adult Recreation and Wellness	3
REC-180	Perceptual Motor Development	3
SOC-101	General Sociology	3
THR-152	Recreation Therapy Techniques II	3
PEH-____	PEH-105, 107, 108, 120, or 140	1

#### Semester 3 (15 credit hours)

COM-103	Speech Fundamentals	3
MTH-120	General Education Mathematics	3
REC-182	Recreation for Special Populations	3
REC-201	Applied Leadership Essentials	3
____-____	Career Elective	3

(Note: Take MTH-120 or higher)

#### Semester 4 (17 credit hours)

BIO-115	Anatomy and Physiology	5
REC-205	Professional Issues	2
THR-233	Recreation Therapy Practicum	3
THR-237	Recreation Therapy Seminar	1
____-____	Humanities and Fine Arts Elective	3
____-____	Career Elective	3

## Respiratory Therapy

**This program consists of one degree.**

### Respiratory Therapy, A.A.S.

**A.A.S. Degree—72 credit hours**

Curriculum Code 1241

This program prepares students as critical-care specialists to assist a primary-care physician in managing patients with serious heart and lung disorders. Respiratory therapists are responsible for administering medical gases, managing electronic monitoring equipment, controlling life-support systems, and handling various medical emergencies. Related responsibilities may include diagnostic testing of breathing disorders, rehabilitation of patients with long-standing pulmonary disease, and asthma education.

Admitted students who wish to earn an Associate in Science degree in addition to an Associate in Applied Science degree should consult with the Allied Health and Nursing Program advisor in the Academic Advising Center.

Job opportunities are expected to remain good. Employment of respiratory therapists is expected to increase much faster than average because of substantial growth of middle-aged and elderly populations.

**Accreditation**— Accredited by the Commission on Accreditation for Respiratory Care (CoARC).

Commission on Accreditation for Respiratory Care  
1248 Harwood Road

Bedford, TX 76021-4244  
CoARC (817) 283-2835 coarc.com

**Admission Requirements**— See Admission to Health Science Programs in the Admission and Registration section.

**Fees**— Fees associated with the Respiratory Therapy Program include use of equipment, supplies, and malpractice insurance. Additional expenses include the cost of a uniform, transportation to and parking at clinical sites, physical examination, a CPR course, criminal background check, drug screening, and national board practice exams. Membership to the American Association for Respiratory Care is required to attend the Illinois Society for Respiratory Care Conference during the summer semester.

**Health Physical**— Prior to clinical placement, students must submit a complete health history and physical form including drug screening signed by the applicant and physician. The health physical includes laboratory tests and immunizations required by clinical affiliates. Questions about the health physical should be directed to the program coordinator. Health physical forms may be obtained from the Admissions Office. The student is encouraged to maintain a copy of all health physical information submitted to the program.

**Re-Application**— Applicants not selected for one starting class are individually responsible for reactivating and up-dating their application file for subsequent starting classes. Re-applicants must complete a new application form and submit it to the Admissions Office during the applicable time period.

**Readmission**— Upon withdrawal or failure to maintain a minimum grade of "C" in any required course in the Respiratory Therapy Program, students must receive permission from program faculty before they may be considered for readmission. They must also meet any current requirements for readmission contained in the Student Handbook issued to students upon beginning the program. If all stipulations are met, readmission is still contingent on space-available basis.

**Credentials and Licensing**— Graduates of the Respiratory Therapy Program must pass the Therapist Multiple Choice (TMC) Examination administered by the

National Board for Respiratory Care (NBRC) in order to apply for an Illinois state license. After passing the TMC, the individual earns the Certified Respiratory Therapist (CRT) credential and is eligible to take the second level of testing to become a Registered Respiratory Therapist (RRT).

**Program Requirements—**

- Students must earn a minimum grade of "C" (2.0) in each required career course (theory and clinical).
- Students are responsible for transportation to and from clinical affiliates.
- Students are responsible for securing uniforms.
- A liability insurance fee is required.
- The college requires that students have minimal health insurance coverage.
- Successful completion of a criminal background check.

**Additional Requirements—** A current health care provider level CPR card from the American Heart Association is required for clinical placement. A criminal background check and drug screen are required by the clinical affiliate prior to clinical placement.

**Program Calendar—** The two-year program starts in the fall term and includes five semesters, including one summer term. Students may complete general education requirements prior to program enrollment. The required biology, chemistry and mathematics courses must be completed within five years of program admission. Exceptions may be granted on an individual basis by the program coordinator. The required career courses must be taken in sequence.

**Required General Education Courses**

**30 credit hours as follows:**

BIO-119	Introductory Microbiology	4
BIO-180	Human Anatomy & Physiology I	4
BIO-181	Human Anatomy & Physiology II	4
CHM-111	Fundamentals of Chemistry	4
OR		
CHM-131	Chemistry (University Oriented) I	4
COM-101	Composition I	3
COM-103	Speech Fundamentals	3
MTH-109	Math for Allied Health	2
OR		
MTH-139	Probability and Statistics	4
PSY-104	Life-Span Developmental Psychology	3

(Note: Take MTH-109 or MTH-139 or higher.)

**A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three

ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

**Select 3 credit hours from Humanities and Fine Arts:**

ARB, ART, FRE, HUM, LIT, MUS, PHI, SPA, THE

**Required Career Courses in Sequence**

**42 credit hours as follows:**

MRT-110	Medical Terminology	3
RES-101	Foundations of Respiratory Care	3
RES-102	Fundamentals of Medical Gas Therapy	5
RES-103	Pharmacology for Respiratory Therapy	3
RES-104	Airway Care and Gas Exchange	4
RES-105	Respiratory Therapeutic Modalities	5
RES-106	Patient and Ventilator Management	3
RES-107	Managing the Critically Ill Patient	2
RES-154	Respiratory Clinical Practice I	1
RES-157	Respiratory Clinical Practice II	1
RES-201	Neonatal/Advanced Respiratory Care	3
RES-202	Respiratory Care Capstone	3
RES-250	Respiratory Clinical Practice III	2
RES-251	Respiratory Clinical Practice IV	4

**Suggested Schedule**

**Summer (7 credit hours)**

CHM-111	Fundamentals of Chemistry	4
OR		
CHM-131	Chemistry (University Oriented) I	4

**MRT-110** Medical Terminology 3

**Semester 1 (18 credit hours)**

BIO-180	Human Anatomy & Physiology I	4
COM-101	Composition I	3
RES-101	Foundations of Respiratory Care	3

**Semester 2 (17 credit hours)**

BIO-181	Human Anatomy & Physiology II	4
RES-104	Airway Care and Gas Exchange	4
RES-105	Respiratory Therapeutic Modalities	5
RES-106	Patient and Ventilator Management	3

**Summer (5 credit hours)**

MTH-109	Math for Allied Health	2
OR		
MTH-139	Probability and Statistics	4

RES-107	Managing the Critically Ill Patient	2
RES-157	Respiratory Clinical Practice II	1

(Note: Take MTH-109 or MTH-139 or higher.)

**Semester 3 (12 credit hours)**

BIO-119	Introductory Microbiology	4
COM-103	Speech Fundamentals	3
RES-201	Neonatal/Advanced Respiratory Care	3
RES-250	Respiratory Clinical Practice III	2
<b>Semester 4 (13 credit hours)</b>		
PSY-104	Life-Span Developmental Psychology	3
RES-202	Respiratory Care Capstone	3
RES-251	Respiratory Clinical Practice IV	4
—	Humanities and Fine Arts Elective	3

**Restaurant/Hotel Management**

**This program consists of one degree and two certificates.**

**Restaurant/Hotel Management, A.A.S.****A.A.S. Degree—62 credit hours****Curriculum Code 1256**

This program applies management training to the hospitality industry in general, and the restaurant and hotel industry in particular. Management operations include personnel, inventory control, accounting, menu planning, food preparation, marketing, layout and design, front desk procedures, and catering. In addition to growing demand for managers, the need to replace managers who transfer to other occupations or stop working for a variety of reasons will create many new jobs. Job opportunities are expected to be best for persons with associate's or bachelor's degrees in restaurant and institutional food service management.

**Required General Education Courses****15 credit hours as follows:**

BUS-120	Business Mathematics	3
COM-101	Composition I	3
COM-103	Speech Fundamentals	3

**BUS-120: A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

**Select 3 credit hours from Social/Behavioral Sciences or Humanities and Fine Arts:**

ANT, ARB, ART, ECO, FRE, GEO, HIS, HUM, LIT, MUS, PHI, PSC, PSY, SOC, SPA, SSC, SPA, THE

**Select 3 credit hours from Physical and Life Sciences:**

BIO, CHM, EAS, GEL, NAT, PHS, PHY

**Required Career Courses****47 credit hours as follows:**

BUS-142	Financial Accounting	4
IMS-115	Microsoft Office I	3
RTM-100	Food Service Sanitation	2
RTM-101	Intro to Hospitality Industry	3
RTM-102	Quantity Food Production I	4
RTM-103	Basic Food Theory	2
RTM-202	Quantity Food Production II	4
RTM-205	Beverage Management	3
RTM-206	Menu Writing and Marketing	3
RTM-209	Baking/Pastry I	4
RTM-223	Convention Management and Service	3
RTM-225	Banquet & Specialty Services	3
RTM-226	Front-of-the-House Management	3
RTM-231	Hospitality Supervision	3
RTM-240	Purchasing and Cost Control	3

**Suggested Schedule****Semester 1 (14 credit hours)**

BUS-120	Business Mathematics	3
COM-101	Composition I	3
RTM-100	Food Service Sanitation	2
RTM-102	Quantity Food Production I	4
RTM-103	Basic Food Theory	2

**Semester 2 (17 credit hours)**

BUS-142	Financial Accounting	4
IMS-115	Microsoft Office I	3
RTM-101	Intro to Hospitality Industry	3
RTM-202	Quantity Food Production II	4
RTM-240	Purchasing and Cost Control	3

**Semester 3 (16 credit hours)**

COM-103	Speech Fundamentals	3
RTM-206	Menu Writing and Marketing	3
RTM-209	Baking/Pastry I	4
RTM-231	Hospitality Supervision	3
—	Physical and Life Sciences Elective	3

**Semester 4 (15 credit hours)**

RTM-205	Beverage Management	3
RTM-223	Convention Management and Service	3
RTM-225	Banquet & Specialty Services	3
RTM-226	Front-of-the-House Management	3
—	Humanities and Fine Arts Elective	3
OR		
—	Social and Behavioral Sciences Elective	3

**Beverage Management, Certificate****Certificate—19 credit hours****Curriculum Code 1414**

This program prepares students for entry-level positions in the beverage area of restaurants, hotels, and clubs.

**Required Career Courses****19 credit hours as follows:**

BUS-120	Business Mathematics	3
RTM-100	Food Service Sanitation	2
RTM-103	Basic Food Theory	2

RTM-205	Beverage Management	3
RTM-206	Menu Writing and Marketing	3
RTM-231	Hospitality Supervision	3
RTM-240	Purchasing and Cost Control	3

#### Suggested Schedule

##### Semester 1 (10 credit hours)

BUS-120	Business Mathematics	3
RTM-100	Food Service Sanitation	2
RTM-103	Basic Food Theory	2
RTM-206	Menu Writing and Marketing	3

##### Semester 2 (9 credit hours)

RTM-205	Beverage Management	3
RTM-231	Hospitality Supervision	3
RTM-240	Purchasing and Cost Control	3

### Restaurant/Hotel Management, Certificate

#### Certificate—36 credit hours

##### Curriculum Code 1254

This program prepares students for entry-level positions in the hospitality industry.

##### Required General Education Courses

###### 6 credit hours as follows:

BUS-120	Business Mathematics	3
COM-101	Composition I	3

##### Required Career Courses

###### 30 credit hours as follows:

RTM-100	Food Service Sanitation	2
RTM-101	Intro to Hospitality Industry	3
RTM-102	Quantity Food Production I	4
RTM-103	Basic Food Theory	2
RTM-205	Beverage Management	3
RTM-206	Menu Writing and Marketing	3
RTM-209	Baking/Pastry I	4
RTM-226	Front-of-the-House Management	3
RTM-231	Hospitality Supervision	3
RTM-240	Purchasing and Cost Control	3

#### Suggested Schedule

##### Semester 1 (17 credit hours)

BUS-120	Business Mathematics	3
COM-101	Composition I	3
RTM-100	Food Service Sanitation	2
RTM-101	Intro to Hospitality Industry	3
RTM-102	Quantity Food Production I	4
RTM-103	Basic Food Theory	2

##### Semester 2 (16 credit hours)

RTM-205	Beverage Management	3
RTM-206	Menu Writing and Marketing	3
RTM-209	Baking/Pastry I	4
RTM-226	Front-of-the-House Management	3
RTM-231	Hospitality Supervision	3

##### Semester 3 (3 credit hours)

RTM-240	Purchasing and Cost Control	3
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### Security and Loss Prevention

*This program consists of one certificate.*

### Security and Loss Prevention, Certificate

#### Certificate—11 credit hours

##### Curriculum Code 1307

This program provides students with basic training in security and loss prevention. While completing coursework, students can also complete industry security-related certification: a 20-hour Unarmed Security industry certification and a 40-hour Armed Security Guard industry certification (20 hour unarmed + 20 hour armed training).

Students who complete this certificate program may use all completed credit hours to pursue the related Criminal Justice A.A.S. degree.

##### Required Career Courses

###### 11 credit hours as follows:

CRJ-202	Investigation & Criminal Evidence	3
LAN-103	Security Awareness	1
SLP-100	Unarmed Security Guard Training	1
SLP-101	Introduction to Security	3
SLP-103	Armed Security Guard Training	1
SLP-219	Contemporary Issues: Security	2

#### Suggested Schedule

##### Semester 1 (11 credit hours)

CRJ-202	Investigation & Criminal Evidence	3
LAN-103	Security Awareness	1
SLP-100	Unarmed Security Guard Training	1
SLP-101	Introduction to Security	3
SLP-219	Contemporary Issues: Security	2

### Sign Language Interpretation

*This program consists of one certificate.*

### Sign Language Interpretation, Certificate

#### Certificate—54 credit hours

##### Curriculum Code 1369

This program serves students who are pursuing employment working with the deaf and deafblind community and/or entering the American Sign Language Interpreting field. Specifically, this certificate will benefit students who are interested in learning American Sign Language to communicate with family, friends, colleagues, and community members, and/or working with the deaf/deafblind/hard-of-hearing community as an interpreter in a wide variety of settings. As a two-year certificate program, this program may also benefit students who are interested in transferring to a four-year institution to complete a bachelor's degree in sign language interpretation, deaf studies, or deaf education.

##### Required Career Courses

**48 credit hours as follows:**

ASL-101	American Sign Language I	3
ASL-102	American Sign Language II	3
ASL-103	American Sign Language III	3
ASL-104	Introduction to Interpreting	3
ASL-110	Deaf Culture and History	3
ASL-112	Intro to Interpreting Professions	3
ASL-114	Fingerspelling and Numbers in ASL	3
ASL-120	Ethics for Interpreters	3
ASL-121	Linguistics of ASL	3
ASL-122	Classifiers in ASL	3
ASL-201	Advanced ASL	3
ASL-202	Intermediate Interpretation	3
ASL-203	ASL to English Interpreting	3
ASL-204	Advanced Interpreting	3
ASL-205	Transliterating	3
ASL-206	Interpreting Practicum	2
ASL-207	Interpreting Seminar	1

**Elective Courses****Select 6 credit hours from the following:**

ASL-208	Interpreting in Educational Settings	3
ASL-209	Interpreting in Specialized Settings	3
ASL-210	Advanced Vocabulary for Interpreters	3
EDU-100	Introduction to Education	3
EDU-106	Language Diversity in the Classroom	3

**Suggested Schedule****Semester 1 (12 credit hours)**

ASL-101	American Sign Language I	3
ASL-110	Deaf Culture and History	3
ASL-112	Intro to Interpreting Professions	3
ASL-114	Fingerspelling and Numbers in ASL	3

**Semester 2 (12 credit hours)**

ASL-102	American Sign Language II	3
ASL-120	Ethics for Interpreters	3
ASL-121	Linguistics of ASL	3
ASL-122	Classifiers in ASL	3

**Summer (6 credit hours)**

ASL-103	American Sign Language III	3
ASL-104	Introduction to Interpreting	3

**Semester 3 (12 credit hours)**

ASL-201	Advanced ASL	3
ASL-202	Intermediate Interpretation	3
ASL-203	ASL to English Interpreting	3
—	Elective	3

**Semester 4 (12 credit hours)**

ASL-204	Advanced Interpreting	3
ASL-205	Transliterating	3
ASL-206	Interpreting Practicum	2
ASL-207	Interpreting Seminar	1
—	Elective	3

**Sleep Technology*****This program consists of one degree.*****Sleep Technology, A.A.S.****A.A.S. Degree—63 credit hours****Curriculum Code 1370**

This program prepares students for careers as sleep technologists. Sleep technologists are health-care professionals who work as part of a team under the general supervision of a licensed physician to assist in the education, evaluation, treatment and follow-up of sleep disorders patients. The scope of practice of sleep technologists enables them to work in sleep centers, laboratories for sleep related breathing disorders, home environments, and non-facility-based settings under the direction of the sleep specialist. This program includes instruction and experience in polysomnographic recording procedures, application of positive airway pressure and oxygen, sleep study scoring, patient care and education, pediatric sleep, sleep disorders, and sleep center management.

**Accreditation**— This program is accredited by the Commission on Accreditation of Allied Health Programs (CAAHEP) on the recommendation of the Committee for Accreditation for Polysomnographic Technologist Education (CoAPSG).

Commission on Accreditation of Allied Health Education Programs (CAAHEP)  
25400 US Highway 19 North, Suite 158  
Clearwater, FL 33763  
**(727) 210-2350**  
[caahep.org](http://caahep.org)

Committee on Accreditation for Polysomnographic Technologist Education

11711 Frank Avenue  
New Bern, NC 28560

**(252) 626-3238**  
[coapsg.org](http://coapsg.org)

**Admissions Requirements**— See admission to Health Science Programs in the Admission and Registration section.

**Fees**— Fees associated with the Sleep Technology program include use of equipment, supplies and malpractice insurance. Additional expenses include the cost of uniform, travel and parking at the clinical site, physical examination, CPR course, criminal background check, and drug screening.

**Health Physical**— Prior to clinical placement, admitted students must submit a complete history and physical form signed by the applicant and physician. The health physical includes laboratory tests and immunizations required by clinical affiliates. Questions about the health physical should be directed to the program coordinator. The student is required to maintain a copy of all health physical information submitted to the program.

**Additional Program Requirements—**

- A current health care provider level CPR card from the American Heart Association is required for clinical placement.
- A criminal background check and drug screen are required.
- Students must earn a minimum grade of "C" (2.0) or better in each required career course.
- Students are responsible for transportation to and from the clinical site.

**Re-Application**— Applicants not selected for one starting class are responsible for reactivating and updating their application file for subsequent starting classes. Re-applicants must complete a new sleep technology admission application and submit to the Admissions Office during the application period as stated in the Admissions and Registration section of this catalog.

**Readmission**— Upon withdrawal or failure to maintain a "C" in any required PSG prefix career course, students must receive permission from program faculty before they may be considered for readmission. Readmission is contingent on a space-available basis.

**Program Calendar**— The two-year program starts in the fall semester and consists of five semesters including one summer semester. Students may complete general education requirements prior to program enrollment. The required PSG prefix courses must be taken in sequence.

**Required General Education Courses****19-22 credit hours as follows:**

BIO-115	Anatomy and Physiology	5
OR		
BIO-180	Human Anatomy & Physiology I	4
AND		
BIO-181	Human Anatomy & Physiology II	4
COM-101	Composition I	3
COM-103	Speech Fundamentals	3
MTH-109	Math for Allied Health	2
PSY-104	Life-Span Developmental Psychology	3
SOC-101	General Sociology	3

Take MTH-109 or higher: **A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

**Required Career Courses****41 credit hours as follows:**

IMS-115	Microsoft Office I	3
MRT-110	Medical Terminology	3
PEH-171	A Healthy Lifestyle and You	3
PSG-105	Polysomnography Patient Care I	4
PSG-110	Cardiopulmonary Physiology	3
PSG-112	Sleep Study Scoring	2
PSG-115	Polysomnography Patient Care II	4
PSG-120	Sleep Technology Clinical I	4
PSG-125	Pediatric Sleep	2
PSG-135	Sleep Disorders	3
PSG-210	Clinical Sleep Education	3
PSG-220	Sleep Technology Clinical II	2
PSG-225	Sleep Center Management	3
PSG-230	Sleep Technology Clinical III	2

**Elective Courses****Select 3 credit hours from the following:**

BUS-215	Employee Training and Development	3
BUS-231	Principles of Management	3
COM-203	Interpersonal Communication	3
PHI-111	Critical Thinking	3
PHI-125	Ethics	3
PHY-106	Fundamentals of Physics	3
AND		
PHY-107	Fundamentals of Physics Lab	1
PSY-215	Educational Psychology	3
SOC-202	Aging in Contemporary Society	3
SOC-204	Soc of Contemp Social Problems	3
SOC-210	Minority Groups	3
SPA-115	Career Spanish for Health Care I	3

**Suggested Schedule****Semester 1 (15 credit hours)**

COM-101	Composition I	3
MRT-110	Medical Terminology	3
PSG-105	Polysomnography Patient Care I	4
PSG-110	Cardiopulmonary Physiology	3
PSG-112	Sleep Study Scoring	2

**Semester 2 (15 credit hours)**

BIO-115	Anatomy and Physiology	5
OR		
BIO-180	Human Anatomy & Physiology I	4
AND		
BIO-181	Human Anatomy & Physiology II	4
MTH-109	Math for Allied Health	2
PSG-115	Polysomnography Patient Care II	4
PSG-120	Sleep Technology Clinical I	4

(Note: Take MTH-109 or higher)

**Summer (5 credit hours)**

PSG-125	Pediatric Sleep	2
PSG-135	Sleep Disorders	3

**Semester 3 (14 credit hours)**

COM-103	Speech Fundamentals	3
IMS-115	Microsoft Office I	3

PSG-210	Clinical Sleep Education	3
PSG-220	Sleep Technology Clinical II	2
SOC-101	General Sociology	3
<b>Semester 4 (14 credit hours)</b>		
PEH-171	A Healthy Lifestyle and You	3
PSG-225	Sleep Center Management	3
PSG-230	Sleep Technology Clinical III	2
PSY-104	Life-Span Developmental Psychology	3
___	Elective	3

## Small Business Management

*This program consists of one inactive degree.*

### Small Business Management, A.A.S.

**A.A.S. Degree—63 credit hours**

Curriculum Code 1411

**New students are currently not being admitted.**

## Sport and Recreation Management

*This program consists of one degree.*

### Sport and Recreation Management, A.A.S.

**A.A.S. Degree—64 credit hours**

Curriculum Code 1261

This program prepares graduates for professional careers in the recreation industry. Recreation and Sport Management professionals plan and implement recreation and sport programs, services, and activities for people from diverse backgrounds and a wide range of activities. Graduates are eligible for employment in park districts, corporate recreation, commercial recreation, and employee recreation. The program includes instruction in facility management, program planning, fiscal management, technology, human resource, marketing and public relations. According to the Bureau of Labor Statistics, employment of recreation workers is projected to grow 10 percent from 2014 to 2024, faster than the average for all occupations. As more emphasis is placed on the importance of exercise, more recreation workers will be needed to work in local government parks and recreation departments, fitness centers, sports centers, and camps specializing in younger participants.

#### Required General Education Courses

**25 credit hours as follows:**

BIO-111	General Biology I	4
COM-101	Composition I	3
COM-102	Composition II	3
COM-103	Speech Fundamentals	3
MTH-120	General Education Mathematics	3
PSY-101	Introduction to Psychology	3
SOC-101	General Sociology	3

MTH-120 or higher: **A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

**Select 3 credit hours from Humanities and Fine Arts:**

ARB, ART, FRE, HUM, LIT, MUS, PHI, SPA, THE

#### Required Career Courses

**30 credit hours as follows:**

IMS-115	Microsoft Office I	3
REC-101	Rec Therapy and Sport Management	3
REC-102	Older Adult Recreation and Wellness	3
REC-120	Sport/Recreation Programming	3
REC-124	Sport/Recreation Facility Management	3
REC-180	Perceptual Motor Development	3
REC-182	Recreation for Special Populations	3
REC-201	Applied Leadership Essentials	3
REC-205	Professional Issues	2
REC-233	Recreation Management Practicum	3
REC-237	Recreation Management Seminar	1

#### Electives

**Select 9 credit hours from the following:**

BUS-110	Legal Environment in Business	3
BUS-231	Principles of Management	3
COM-201	Business and Technical Writing	3
IMS-101	Introduction to Computer Systems	3
LSC-109	Tour/Itinerary Planning	2
LSC-110	Fundamentals of Meeting Planning	3
PEH-170	First Aid	3
PEH-190	Outdoor Recreation & Nature Study	3
PSY-201	Industrial/Organizational Psychology	3
RTM-101	Intro to Hospitality Industry	3
SLP-106	Crisis Management	3
THE-150	Creative Dramatics	3

#### Suggested Schedule

**Semester 1 (15 credit hours)**

COM-101	Composition I	3
PSY-101	Introduction to Psychology	3
REC-101	Rec Therapy and Sport Management	3
REC-124	Sport/Recreation Facility Management	3

\_\_\_ Humanities and Fine Arts Elective 3

**Semester 2 (16 credit hours)**

BIO-111	General Biology I	4
COM-102	Composition II	3
REC-102	Older Adult Recreation and Wellness	3
REC-180	Perceptual Motor Development	3
SOC-101	General Sociology	3

**Semester 3 (15 credit hours)**

COM-103	Speech Fundamentals	3
MTH-120	General Education Mathematics	3
REC-182	Recreation for Special Populations	3
REC-201	Applied Leadership Essentials	3
___-___	Elective	3

(Note: Take MTH-120 or higher.)

**Semester 4 (18 credit hours)**

IMS-115	Microsoft Office I	3
REC-120	Sport/Recreation Programming	3
REC-205	Professional Issues	2
REC-233	Recreation Management Practicum	3
REC-237	Recreation Management Seminar	1
___-___	Elective	3
___-___	Elective	3

**Stationary Engineer**

**This program consists of one degree and one certificate.**

**Stationary Engineer, A.A.S.****A.A.S. Degree—62 credit hours****Curriculum Code 1329**

This program is designed to prepare students for employment at the management level in the construction industry.

**Required General Education Courses****16-17 credit hours as follows:**

COM-101	Composition I	3
COM-103	Speech Fundamentals	3

**Select 3-4 credit hours from Math:**

MTH-120	General Education Mathematics	3
MTH-139	Probability and Statistics	4
MTH-212	Statistics for Business	4

**A minimum level of competency in mathematics is required for graduation for all A.A.S. degrees.** This minimum competency may be demonstrated in one of three ways:

- Placement into MTH-120 or higher; or
- Successful completion with a minimum grade of "C" in BUS-120, MTH-102, MTH-109, MTH-121, or MTH-133 or higher-level mathematics course for designated career programs; or
- An equivalent transfer course from another college with a minimum grade of "C".

**Select 3 credit hours from Social/Behavioral Sciences:**

ANT, ECO, GEO, HIS, PSC, PSY, SOC, SSC

**Select 4 credit hours from Physical and Life Sciences:**

BIO, CHM, EAS, GEL, NAT, PHS, PHY

**Required Career Courses****36 credit hours as follows:**

HAC-105	Air Conditioning Theory	3
HAC-111	Introduction to Controls	4
HAC-115	Basic Service Procedures	4
HAC-140	Sheet Metal Hand Forming	4
HAC-150	Advanced Control Systems	4
HAC-154	Installation and Service	4
HAC-158	Introduction to Heating	4
HAC-180	Electronic Controls	4
HAC-240	HVAC Troubleshooting	5

**Electives****Select 9-10 credit hours from the following:**

BUS-110	Legal Environment in Business	3
BUS-136	Business Law	3
BUS-226	Business Ethics	3
COM-102	Composition II	3
HAC-165	Sustainable Energy Practices	4
HIS-101	Western Civilization I	3
HUM-135	African & Middle Eastern Humanities	3
HUM-140	Asian and Oceanic Humanities	3
HUM-145	Native American Humanities	3
IMS-115	Microsoft Office I	3
SOC-210	Minority Groups	3
TDL-102	Job Skills for Competitive Advantage	3

**Suggested Schedule****Semester 1 (16 credit hours)**

COM-101	Composition I	3
HAC-105	Air Conditioning Theory	3
HAC-111	Introduction to Controls	4
___-___	Social and Behavioral Sciences Elective	3
___-___	Elective	3

(Note: Select from Elective list)

**Semester 2 (14-15 credit hours)**

MTH-120	General Education Mathematics	3
OR		
MTH-139	Probability and Statistics	4
OR		
MTH-212	Statistics for Business	4
COM-103	Speech Fundamentals	3
HAC-115	Basic Service Procedures	4
HAC-140	Sheet Metal Hand Forming	4

**Semester 3 (16 credit hours)**

HAC-150	Advanced Control Systems	4
HAC-154	Installation and Service	4
HAC-158	Introduction to Heating	4
___-___	Physical and Life Sciences Elective	4

**Semester 4 (15 credit hours)**

HAC-180	Electronic Controls	4
HAC-240	HVAC Troubleshooting	5
___-___	Elective	3
___-___	Elective	3

(Note: Select courses from program electives list.)

**HAC Stationary Engineer, Certificate****Certificate—43 credit hours****Curriculum Code 1326**

This program prepares students to repair and maintain heating, air conditioning and refrigeration equipment in commercial and industrial high-rise environments.

#### Required General Education Courses

##### 9 credit hours as follows:

COM-101	Composition I	3
COM-103	Speech Fundamentals	3
MTH-120	General Education Mathematics	3

(Note: Take MTH-120 or higher)

#### Required Career Courses

##### 34 credit hours as follows:

HAC-105	Air Conditioning Theory	3
HAC-111	Introduction to Controls	4
HAC-115	Basic Service Procedures	4
HAC-140	Sheet Metal Hand Forming	4
HAC-150	Advanced Control Systems	4
HAC-154	Installation and Service	4
HAC-158	Introduction to Heating	4
HAC-180	Electronic Controls	4
IMS-115	Microsoft Office I	3

#### Suggested Schedule

##### Semester 1 (14 credit hours)

COM-101	Composition I	3
HAC-105	Air Conditioning Theory	3
HAC-111	Introduction to Controls	4
HAC-115	Basic Service Procedures	4

##### Semester 2 (15 credit hours)

HAC-140	Sheet Metal Hand Forming	4
HAC-150	Advanced Control Systems	4
HAC-154	Installation and Service	4
IMS-115	Microsoft Office I	3

##### Semester 3 (14 credit hours)

COM-103	Speech Fundamentals	3
HAC-158	Introduction to Heating	4
HAC-180	Electronic Controls	4
MTH-120	General Education Mathematics	3

(Note: Take MTH-120 or higher.)

## Supply Chain Management

*This program consists of one certificate.*

### Supply Chain Management, Certificate

#### Certificate—17 credit hours

Curriculum Code 1319

This application-based program offers six-courses that provide a solid foundation in all facets of supply chain network, operations management and cargo security. Students will address both domestic and global issues in supplier and customer relations, value-added product differentiation, cost management, customs/security compliance, and the basic professional skills required to succeed within this industry. These courses have been designed based on current industry needs and in consultation with logistics and supply chain leaders. The

U.S. Bureau of Labor Statistics reports that employment in the transportation industry is expected to increase locally and nationally. Moraine Valley's district is located in a transportation hub which encompasses businesses tied to air, land, water, and rail. Students participating in this program will gain background for entry-level and trainee positions or, if currently employed in the industry, enhanced professional knowledge and career advancement potential.

#### Required Career Courses

##### 17 credit hours as follows:

TDL-101	Transportation & Logistics Overview	3
TDL-102	Job Skills for Competitive Advantage	3
TDL-103	Transportation	3
TDL-104	Introduction to Import/Export	3
TDL-105	Principles of Operations Management	3
TDL-106	Cargo Security	2

#### Suggested Schedule

##### Semester 1 (9 credit hours)

TDL-101	Transportation & Logistics Overview	3
TDL-102	Job Skills for Competitive Advantage	3
TDL-103	Transportation	3

##### Semester 2 (8 credit hours)

TDL-104	Introduction to Import/Export	3
TDL-105	Principles of Operations Management	3
TDL-106	Cargo Security	2

## Therapeutic Massage

*This program consists of one certificate.*

### Therapeutic Massage, Certificate

#### Certificate—39 credit hours

Curriculum Code 1249

The mission of the program is to train entry-level massage therapists in the intentional and systematic manipulation of the soft tissue of the body. Students will understand the code of professional ethics and gain knowledge of business skills. Additionally, Moraine Valley offers a supervised student clinic that is open to the public and gives students the opportunity to work with a variety of people. Graduates are prepared and eligible to sit for the exam to obtain Illinois licensure.

#### Additional Requirements—

- Students must be at least 18 years old to enroll in MAS-101.
- A current health care provider level CPR card and First Aid card are required for MAS-110, (or PEH-170). Successful completion of a criminal background check is required prior to MAS-110.
- Students must earn a minimum grade of "C" (2.0) in each required career course.

**Required Program Prerequisite**

Valid CPR/First Aid card (or take PEH-170 First Aid)

**Required Career Courses****39 credit hours as follows:**

BIO-115	Anatomy and Physiology	5
COM-103	Speech Fundamentals	3
MAS-101	Introduction to Massage	1
MAS-109	Pathology for Massage Therapy	3
MAS-110	Basic Swedish Massage	3
MAS-112	Assessment and Sports Massage	4
MAS-114	Massage Modalities	4
MAS-118	Business, Ethics and Documentation	4
MAS-120	Massage Lab Practicum	3
MRT-110	Medical Terminology	3
PEH-160	Fundamentals of Human Movement	3
PEH-171	A Healthy Lifestyle and You	3

(Note: Students will either have a valid CPR/First Aid card at the time of enrollment in MAS-110 or take PEH-170 or a comparable course at another college with a minimum grade of "C".)

**Suggested Schedule****Semester 1 (9-12 credit hours)**

BIO-115	Anatomy and Physiology	5
MAS-101	Introduction to Massage	1
MRT-110	Medical Terminology	3
PEH-170	First Aid	3

(Note: Take PEH-170 if no valid First Aid and CPR card.)

**Semester 2 (12 credit hours)**

COM-103	Speech Fundamentals	3
MAS-109	Pathology for Massage Therapy	3
MAS-110	Basic Swedish Massage	3
PEH-160	Fundamentals of Human Movement	3

**Semester 3 (12 credit hours)**

MAS-112	Assessment and Sports Massage	4
MAS-114	Massage Modalities	4
MAS-118	Business, Ethics and Documentation	4

**Semester 4 (6 credit hours)**

MAS-120	Massage Lab Practicum	3
PEH-171	A Healthy Lifestyle and You	3

**Travel Business Management****Travel Business Management, A.A.S.****A.A.S. Degree—62 credit hours**

Curriculum Code 1288

**New students are currently not being admitted.****Meeting Planner, Certificate****Certificate—30 credit hours**

Curriculum Code 1465

**New students are currently not being admitted.****Travel-Tourism, Certificate****Certificate—26 credit hours**

Curriculum Code 1289

**New students are currently not being admitted.****Welding****This program consists of six certificates.****Welding, Advanced, Certificate****Certificate—33 credit hours**

Curriculum Code 1229

This program prepares students for employment in the welding field. Students gain experience in SMAW (stick), gas metal arc welding (mig), gas tungsten arc welding (tig), brazing, braze welding, oxy fuel and plasma cutting. Metallurgy, welding print interpretation, electrical welding circuits, and related safety procedures are also studied. Advanced training in pipe welding using the shielded metal arc process or advanced training in industrial problems are offered as options to this certificate. Once the student gains employment and experience in the field of welding this education makes the successful student eligible for advancement in the workforce.

Excellent opportunities are available for welders with the right skills set. Knowledgeable, well-trained and conscientious welders can find positions working in most industries. Trained welders are required due to new government regulations and personal safety requirements that dictate stricter codes. More products have emerged requiring certified and qualified welders.

**Required General Education Courses****3 credit hours as follows:**

MTH-120	General Education Mathematics	3
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(Note: Take MTH-120 or higher)

**Required Career Courses****26 credit hours as follows:**

WLD-104	Electric Welding Circuits	2
WLD-105	Reading Welding Blueprints	3
WLD-111	Basic Arc/Gas Welding I	3
WLD-112	Basic Arc/Gas Welding II	3
WLD-113	Basic Metallurgy and Materials	3
WLD-121	Advanced SMAW & Cutting I	3
WLD-122	Advanced SMAW and Cutting II	3
WLD-123	MIG, TIG, & Brazing I	3
WLD-124	MIG, TIG, and Brazing II	3

**Career Program Option**

Minimum of 4 credit hours chosen from one of the following options:

**Option I**

WLD-137	Individual Welding Problems I	2
WLD-138	Individual Welding Problems II	2

<b>Option II</b>				
WLD-137	Individual Welding Problems I	2	WLD-121	Advanced SMAW & Cutting I
WLD-160	Visual Inspection of Welds	2	WLD-122	Advanced SMAW and Cutting II
<b>Option III</b>			WLD-123	MIG, TIG, & Brazing I
WLD-140	Basic Pipe Welding I	3	WLD-124	MIG, TIG, and Brazing II
WLD-141	Basic Pipe Welding II	3		
<b>Suggested Schedule</b>				
<b>Semester 1 (14 credit hours)</b>				
MTH-120	General Education Mathematics	3	MTH-120	General Education Mathematics
WLD-104	Electric Welding Circuits	2	WLD-104	Electric Welding Circuits
WLD-105	ReadingWelding Blueprints	3	WLD-105	ReadingWelding Blueprints
WLD-111	Basic Arc/Gas Welding I	3	WLD-111	Basic Arc/Gas Welding I
WLD-112	Basic Arc/Gas Welding II	3	WLD-112	Basic Arc/Gas Welding II
(Note: Take MTH-120 or higher)				
<b>Semester 2 (15 credit hours)</b>				
WLD-113	Basic Metallurgy and Materials	3	WLD-121	Advanced SMAW & Cutting I
WLD-121	Advanced SMAW & Cutting I	3	WLD-122	Advanced SMAW and Cutting II
WLD-122	Advanced SMAW and Cutting II	3	WLD-123	MIG, TIG, & Brazing I
WLD-123	MIG, TIG, & Brazing I	3	WLD-124	MIG, TIG, and Brazing II
WLD-124	MIG, TIG, and Brazing II	3		
<b>Semester 3 (4 credit hours)</b>				
WLD-__	Elective	2		
WLD-__	Elective	2		

## Welding, Combination, Certificate

### Certificate—26 credit hours

#### Curriculum Code 1230

This program prepares students for employment in the welding field. Students gain experience in SMAW (stick), gas metal arc welding (mig), gas tungsten arc welding (tig), submerged arc welding flux, cored arc welding, brazing, braze welding, oxy fuel and plasma cutting. Welding print interpretation, electrical welding circuits, and related safety procedures are also studied. Once the student gains employment and experience in the field of welding this education gives the students the tools for a successful career.

Excellent opportunities are available for welders with the right skills set. Knowledgeable, well-trained and conscientious welders can find positions working in most industries. Trained welders are required due to new government regulations and personal safety requirements that dictate stricter codes. More products have emerged requiring certified and qualified welders.

#### Required General Education Courses

##### 3 credit hours as follows:

MTH-120	General Education Mathematics	3
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(Note: Take MTH-120 or higher)

#### Required Career Courses

##### 23 credit hours as follows:

WLD-104	Electric Welding Circuits	2
WLD-105	ReadingWelding Blueprints	3
WLD-111	Basic Arc/Gas Welding I	3
WLD-112	Basic Arc/Gas Welding II	3

WLD-121	Advanced SMAW & Cutting I	3
WLD-122	Advanced SMAW and Cutting II	3
WLD-123	MIG, TIG, & Brazing I	3
WLD-124	MIG, TIG, and Brazing II	3

#### Suggested Schedule

##### Semester 1 (14 credit hours)

MTH-120	General Education Mathematics	3
WLD-104	Electric Welding Circuits	2
WLD-105	ReadingWelding Blueprints	3
WLD-111	Basic Arc/Gas Welding I	3
WLD-112	Basic Arc/Gas Welding II	3

(Note: Take MTH-120 or higher)

##### Semester 2 (12 credit hours)

WLD-121	Advanced SMAW & Cutting I	3
WLD-122	Advanced SMAW and Cutting II	3
WLD-123	MIG, TIG, & Brazing I	3
WLD-124	MIG, TIG, and Brazing II	3

## Individualized Welding, Certificate

### Certificate—8 credit hours

#### Curriculum Code 1530

This program prepares the student for a career as an entry-level welder with specific skills required for an individual's preference.

#### Required Career Courses

##### 8 credit hours as follows:

WLD-111	Basic Arc/Gas Welding I	3
WLD-112	Basic Arc/Gas Welding II	3
WLD-137	Individual Welding Problems I	2

#### Suggested Schedule

##### Semester 1 (6 credit hours)

WLD-111	Basic Arc/Gas Welding I	3
WLD-112	Basic Arc/Gas Welding II	3

##### Semester 2 (2 credit hours)

WLD-137	Individual Welding Problems I	2
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## Multi-Process Welding, Certificate

### Certificate—9 credit hours

#### Curriculum Code 1532

This program prepares the student for a career as an entry-level welder with basic knowledge of several types of welding techniques.

#### Required Career Courses

##### 9 credit hours as follows:

WLD-111	Basic Arc/Gas Welding I	3
WLD-123	MIG, TIG, & Brazing I	3
WLD-124	MIG, TIG, and Brazing II	3

#### Suggested Schedule

##### Semester 1 (3 credit hours)

WLD-111	Basic Arc/Gas Welding I	3
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**Semester 2 (6 credit hours)**

WLD-123	MIG, TIG, & Brazing I	3
WLD-124	MIG, TIG, and Brazing II	3

**Pipe Welding, Certificate****Certificate—18 credit hours***Curriculum Code 1531*

This program prepares the student for a career as an entry-level welder with specific pipe welding skills required for the pipe welders union.

**Required Career Courses****18 credit hours as follows:**

WLD-111	Basic Arc/Gas Welding I	3
WLD-112	Basic Arc/Gas Welding II	3
WLD-121	Advanced SMAW & Cutting I	3
WLD-122	Advanced SMAW and Cutting II	3
WLD-140	Basic Pipe Welding I	3
WLD-141	Basic Pipe Welding II	3

**Suggested Schedule****Semester 1 (6 credit hours)**

WLD-111	Basic Arc/Gas Welding I	3
WLD-112	Basic Arc/Gas Welding II	3

**Semester 2 (6 credit hours)**

WLD-121	Advanced SMAW & Cutting I	3
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## WLD-122 Advanced SMAW and Cutting II 3

**Semester 3 (6 credit hours)**

WLD-140	Basic Pipe Welding I	3
WLD-141	Basic Pipe Welding II	3

**Shielded Metal Arc Welding, Certificate****Certificate—9 credit hours***Curriculum Code 1529*

This program prepares the student for a career as a basic stick welder. It will give a student one step up on entering the welding field.

**Required Career Courses****9 credit hours as follows:**

WLD-111	Basic Arc/Gas Welding I	3
WLD-112	Basic Arc/Gas Welding II	3
WLD-121	Advanced SMAW & Cutting I	3

**Suggested Schedule****Semester 1 (6 credit hours)**

WLD-111	Basic Arc/Gas Welding I	3
WLD-112	Basic Arc/Gas Welding II	3

**Semester 2 (3 credit hours)**

WLD-121	Advanced SMAW & Cutting I	3
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# Courses

Moraine Valley's courses meet a variety of students' needs. Course descriptions are listed by prefix and include the course code, credit hours, course title, pre- and corequisites, content description, and weekly course contact hours. Where appropriate, the Illinois Articulation Initiative (IAI) code(s) are listed following the weekly contact hours. Not all courses are offered every year. See the subdivision dean or the department chair for information on courses that are offered on a rotational basis.

**Prerequisite**—coursework must be completed before enrolling in the designated class, often an introductory course.

**Corequisite**—you are required to enroll in two designated courses during the same semester.

**Consent of instructor**—a course permission slip must be granted by the instructor.

**IAI Code**—meets the requirements of the *Illinois Articulation Agreement*.

**Contact Hours**—total contact hours per week for the lecture, lab and practicum components of the course.

## ADC—Addiction Studies

### ADC-100 Human Development and Behavior (3)

Provides basic principles of human development and behavior. Focus is on how chemical use, misuse, abuse and dependency affect normal growth and development. (3 contact hours)

### ADC-101 Introduction to Addiction Counseling (3)

Introduction to alcohol and other drug abuse counseling and processes. Focus is on assessment and diagnosis, the core functions of an alcohol and other drug abuse counselor, and basic counseling skills. Provides information on career opportunities, counselor certification requirements and procedures, and other aspects of the AODA counselor. (3 contact hours)

### ADC-106 Theory and Practice of Counseling (3)

Current theoretical counseling approaches will be discussed within the context of their history, philosophical base, key concepts, and client populations served. Students will be encouraged to explore their own philosophic base and skills to identify approaches for further study. (3 contact hours)

Prerequisite: ADC-101 and ADC-202

### ADC-108 Treatment Delivery Models (3)

This course provides an introduction to the history of human services, the life and social problems addressed through human services, and public policies and systems

developed in response to human service needs. (3 contact hours)

Corequisite: Registration or credit in ADC-100

### ADC-110 Common Behavior Disorders (3)

Provides an overview of the causes, assessment and treatment of common behavior disorders. Includes a review of organic-based syndromes, thought and affective disorders, and compulsive disorders such as gambling, sexual addiction, and eating disorders. Assessment and relapse prevention principles for the dually diagnosed client also are reviewed. (3 contact hours)

Prerequisite: ADC-101

### ADC-112 Diversity in Addictions Counseling (3)

This course examines treatment issues, techniques, and the development of programs related to diverse cultures and special-needs groups such as adolescents, women, the elderly, and minority groups. Mixed cultural identities also are covered. (3 contact hours)

Prerequisite: ADC-101

### ADC-202 Substance Use, Abuse and Dependency (3)

This course provides intensive instruction about alcohol and other drugs with emphasis on the differences between substance use, abuse and dependence, and the symptoms associated with each of these stages. The student will be able to recognize the signs and symptoms of each stage, the effects of substance abuse on the individual, the family, society, and a historical approach to intervention strategies. (3 contact hours)

### ADC-204 Psychopharmacology (3)

This course provides an introduction to the psychopharmacology of alcohol and other drugs, including physiological and biochemical processes, action, use, and route of administration. Intoxication screening and withdrawal symptoms will be addressed. (3 contact hours)

Prerequisite: ADC-202

### ADC-206 Group Counseling (3)

Provides intensive instruction in the theory and practice of the group counseling approach used in alcohol and other drug abuse treatment. (3 contact hours)

Corequisite: Registration or credit in ADC-106

### ADC-207 Family Dynamics and Counseling (3)

This course provides intensive instruction in the theories of family dynamics and the practice of family counseling in a variety of human services settings. (3 contact hours)

Prerequisite: ADC-101 and ADC-202 Corequisite: Registration or credit in ADC-106

**ADC-208 Case Management (3)**

This course provides an introduction to case management principles and practices, including assessment, service planning and documentation. (3 contact hours)

Prerequisite: ADC-101 and ADC-108 and ADC-202

**ADC-211 Compliance and Ethics (3)**

This course is designed to present and review the compliance and ethical standards to which the addictions counselor is required to adhere. Students will be introduced to the State Division of Alcoholism and Substance Abuse (DASA) Rule 2060, the Illinois State Certification (IAODAPCA) Board Code of Ethics, federal HIPAA privacy and security standards, and corporate compliance standards applicable to the field of addictions studies. (3 contact hours)

Prerequisite: ADC-106

**ADC-212 Women: Addiction and Recovery (3)**

This course provides an introduction to the specific needs of women in addiction and recovery. Biological, psychological and societal factors will be identified as well as the treatment services needed to optimize successful recovery. (3 contact hours)

Prerequisite: ADC-101 and ADC-202 or permission of coordinator Corequisite: Registration or credit in ADC-112 or permission of coordinator

**ADC-219 Contemporary Issues: Alcohol/Drugs (2)**

Intended primarily for students interested in alcohol and other drug issues. The course examines basic policy problems: legislation, professionalism, education, training, literature and research, procedures, administration, and social problems. This course may be taken four times for credit. (2 contact hours)

**ADC-230 Special Topics in Addiction Studies (1)**

Students work with instructor individually or in small groups to develop special projects designed to focus on specific addictions studies, chemical dependency, substance abuse, or related topics. This course may be taken four times for credit. (1 contact hour)

**ADC-233 Field Practicum (3)**

Supervised practical exposure and involvement in chemically dependent treatment service delivery at an approved addictions counseling site. This course meets the minimum supervision requirements for counselor certification by the Illinois Alcohol and Other Drug Abuse Professional Certification Association. Fee is required. (15 contact hours)

Prerequisite: Consent of practicum coordinator and 30 credit hours in courses with an ADC prefix and a minimum grade of "C" Corequisite: ADC-237

**ADC-237 Seminar (1)**

Discussion of supervised field service experience in Field Practicum. (1 contact hour)

Prerequisite: Consent of practicum coordinator Corequisite: ADC-233

**ADC-243 Advanced Field Practicum (3)**

This course provides supervised advanced-level exposure and involvement in chemical dependent treatment service delivery at an approved addictions counseling site. Successful completion of the course meets 250 (50%) of the minimum supervision requirement of 500 hours for counselor certification by the Illinois Alcohol and Other Drug Abuse Professional Certification Association. Fee is required. (15 contact hours)

Prerequisite: ADC-233 and consent of practicum coordinator Corequisite: Registration or credit in ADC-247

**ADC-247 Advanced Seminar (1)**

In this course students will discuss their supervised field experiences in ADC-243, Advanced Field Practicum. (1 contact hour)

Prerequisite: Consent of practicum coordinator Corequisite: ADC-243

**ANT—Anthropology****ANT-201 Introductory Physical Anthropology (3)**

Introduces the physical and cultural origins of humans, including study of primate behavior, fossil humans, development of tools, origins of agriculture, and development of early civilization. (3 contact hours)

IAI Code: S1 902

**ANT-202 Intro. to Cultural Anthropology (3)**

Introduces nature, origins of culture, and diversity of recent or living cultures. Covers methods of field work, case studies, problems of acculturation, and the role of museums in presenting and preserving material culture. (3 contact hours)

IAI Code: S1 901N

**ANT-205 North American Indians (3)**

Surveys the archaeology and diverse cultures of native Americans, focusing on the earliest migrations to North America, the cultural achievements of the mound and pyramid builders, and the creative adaptations of specific Indian groups to various environments - past and present. (3 contact hours)

**ANT-210 Introduction to Archaeology (3)**

Introduces archaeological concepts, research, and methods for studying prehistoric and present cultures. Surveys the origin and development of societies in all parts of the world as revealed by significant archaeological sites and material culture. Current archaeological investigations of local interest and ethical issues in archaeology are examined. (3 contact hours)

IAI Code: S1 903

**ARB—Arabic****ARB-101 Arabic I (4)**

This course introduces students to Modern Standard Arabic. Practice focuses on developing basic knowledge and skills in pronunciation and recognition of the sounds of Arabic, reading and writing the Arabic script, grammar, reading and listening comprehension, and written composition. The course presumes no prior study of the language. (4 contact hours)

**ARB-102 Arabic II (4)**

This course develops existing basic abilities to communicate in speaking and writing Modern Standard Arabic. Practice focuses on increasing knowledge and skills in pronunciation, grammar, reading and listening comprehension, and written composition. The course builds on basic skills to read and write in the Arabic writing system, and knowledge of basic Arabic grammar. (4 contact hours)

Prerequisite: ARB-101

**ARB-201 Arabic III (4)**

This course is the third in a series of Arabic courses. Instruction will build on skills taught in ARB-101 and ARB-102. The main focus of the course will continue to be communicative skills. Students will learn the basic skills needed to communicate in Arabic including comprehension, speaking, reading, and writing. Grammar will be introduced to facilitate communication. The course will be taught mainly in Arabic using Modern Standard Arabic. (4 contact hours)

Prerequisite: ARB-102

**ARB-202 Arabic IV (4)**

This course is the fourth in the series of Arabic courses. This course will focus on using the skills developed in the previous three courses to effectively communicate verbally and in writing in the Arabic language. In addition to strong emphasis on developing Arabic communication skills, students will receive instruction in Arabic structure to ensure their knowledge and proper use of proper Modern Standard Arabic. Students will be introduced to authentic Arabic texts and audio from various Arab countries and will be exposed to native Arabic speakers to familiarize them

with the major dialects of the various Arab regions. (4 contact hours)

Prerequisite: ARB-201 or 4 years of high school Arabic IAI Code: H1 900

**ART—Art****ART-101 Drawing I (3)**

Introduces drawing principles and techniques. Covers form, design and perspective, and includes various drawing media techniques. Fee is required. (6 contact hours)

IAI Code: ART904

**ART-104 Drawing II (3)**

A continuation of ART-101, this course emphasizes composition, perspective and visual interpretation. A variety of drawing media is used. Fee is required. (6 contact hours)

Prerequisite: ART-101 IAI Code: ART905

**ART-105 Life Drawing (3)**

Teaches techniques of human figure drawing using draped and undraped models. Various media, applying principles such as design, structure, composition, form and abstraction, are used. Fee is required. (6 contact hours)

Prerequisite: ART-101

**ART-110 Art Appreciation (3)**

Introductory survey and analysis of the visual arts - painting, sculpture, architecture, photography, printmaking, and crafts - to acquaint non-art majors with basic aesthetic concepts: media, technique and function; elements and form; genres; stylistic characteristic and expressive qualities; and socio-cultural influences. (3 contact hours)

IAI Code: F2 900

**ART-116 Two-Dimensional Design (3)**

This course introduces the basic principles and elements of two-dimensional design, including basic art theory, composition and use of color in visual art. Emphasizes application of original ideas in creation of original design. Students will supply basic art-making materials from a list provided by the instructor. Fee is required. (6 contact hours)

IAI Code: ART907

**ART-118 Three-Dimensional Design (3)**

Basic principles and elements of three-dimensional design are discussed. Includes volume, color, value, texture, and line. Emphasizes application of design concepts to original design. Fee is required. (6 contact hours)

Prerequisite: ART-101 or ART-116 IAI Code: ART908

**ART-120 Beginning Painting (3)**

Introduces basic techniques and materials of oil and acrylic painting. Fee is required. (6 contact hours)

Prerequisite: ART-101

**ART-121 Watercolor Painting (3)**

Introduces basic techniques and materials of transparent and opaque watercolor painting. Fee is required. (6 contact hours)

Prerequisite: ART-101

**ART-122 Intermediate Painting (3)**

Explores advanced painting techniques as applied to solving visual problems in oils, acrylics and watercolors. Fee is required. (6 contact hours)

Prerequisite: ART-120

**ART-125 Ceramics I (3)**

Create clay forms using hand techniques and potter's wheel. Covers glazes, decorations and kiln firing. Explores design problems and solutions. Includes historical and cultural development of ceramics as an art form. Fee is required. (6 contact hours)

**ART-126 Ceramics II (3)**

Applies basic pottery methods to create advanced ceramic forms. Presents experimental problems in glazes, mixing and firing. Applies historical, aesthetic and artistic principles to ceramics problems. Student exhibit is required. Fee is required. (6 contact hours)

Prerequisite: ART-125

**ART-146 Introduction to Computer Art (3)**

Introduction to computer applications in the visual arts. A Macintosh computer software-based approach to visual image manipulation and generation is provided, including the integration of computer hardware, software and peripheral devices as tools to create and combine traditional and contemporary visual ideas. Involves both theoretical understanding and practical application in the utilization of computer hardware and software to capture, combine, manipulate, and generate two-dimensional visual images in both art and design. Fee is required. (6 contact hours)

**ART-150 Sculpture (3)**

Introduces basic techniques of sculpture. Explores three-dimensional media. Applies additive, subtractive and manipulative approaches to creating three-dimensional works of art. Fee is required. (6 contact hours)

Prerequisite: ART-101

**ART-160 Darkroom Photography: Introduction (3)**

This studio course covers the basic principles of darkroom-based black and white photography, including camera operation, equipment, film processing, composition, and darkroom techniques. Students supply film, mount board, photo printing paper, and 35mm manual camera. Fee is required. (6 contact hours)

**ART-161 Camera and Darkroom Techniques (3)**

This studio course develops expressive and technical skills in 35mm camera usage and darkroom work through the exploration of various black-and-white films, chemistries, exposure systems and printing techniques. Through a series of complex photographic projects, students learn to think creatively with a camera, control exposure, and explore the photographic potential of various combinations of films and developers, printing papers, alternative printing techniques, and various lighting techniques. Students supply black-and-white film, mounting board, RC and fiber-based paper, and 35mm manual camera. Fee is required. (6 contact hours)

Prerequisite: ART-160

**ART-162 Photographic Design (3)**

This studio course investigates the application of 2-D design elements to explore the creative potential of the photographic medium. Students will utilize traditional and non-standard photographic processes to make images which implement specific design techniques. The use of design as a method of communicating ideas and concepts within photography will be explored. A series of conceptual and technical projects will emphasize joining specific techniques, materials and design elements to bring about a unique creative vision. Creative techniques of 35mm camera work, black and white printing, studio work, and photographic manipulation techniques will be explored. Students supply black-and-white films, mounting board, RC and fiber-based paper, and 35mm manual camera. Fee is required. (6 contact hours)

Prerequisite: ART-160

**ART-163 Alternative Photographic Processes (3)**

This course is designed for intermediate-level art and photography students who wish to explore non-standard photographic processes. A series of conceptual and technical projects will emphasize integration of digital imagemaking with handmade photographic printing techniques to foster a unique creative vision. Areas of exploration include creative camera techniques, image acquisition and optical distortion techniques, digital image manipulation, hand-painted photographic emulsions, photo-based mixed media work, and photographic manipulation. Students supply various papers and other printing materials, mounting board, professional-quality inkjet

transparency film and film or digital camera. Fee is required. (6 contact hours)

Prerequisite: ART-146 or ART-160

### **ART-165 Digital Photography: Introduction (3)**

This studio course covers basic principles of digital photography, including equipment and camera operation, digital image adjustment and processing techniques. Students supply mount board, inkjet photo paper and digital SLR camera. Fee is required. (6 contact hours)

### **ART-170 Printmaking (3)**

Introduces basic printmaking techniques such as relief, intaglio and screenprinting. Fee is required. (6 contact hours)

### **ART-171 Printmaking II (3)**

This course is an in-depth exploration of relief, intaglio, and screenprinting techniques with an emphasis on developing conceptual skills and technical mastery within the framework of traditional and contemporary printmaking. New methods such as aquatint, multi-plate printing, transfer print processes, printing on alternative materials, and bookmaking are introduced. Students are encouraged to strengthen the balance between conceptual development and advanced technical facility. Fee is required. (6 contact hours)

Prerequisite: ART-170

### **ART-180 Digital Photographic Imagery (3)**

This art/graphic design studio course explores the techniques of acquiring, manipulating and outputting digitized photographic images. The emphasis is on digital image-making concepts and techniques, and uses historical references in both art and photography. Fee is required. (4 contact hours)

Corequisite: Registration or credit in ART-146 and registration or credit in ART-160 or ART-165

### **ART-182 Digital Illustration (3)**

This art/graphic design studio course introduces vector-based illustration techniques. Investigates object-oriented graphics, curves and shapes, blending, patterns, and textures. Also examines the manipulation of type fonts as images. Fee is required. (6 contact hours)

Prerequisite: ART-146 or consent of instructor

### **ART-184 Digital Imaging (3)**

This art/graphic design studio course introduces computer imaging with bit-mapped graphics and rasterized images. Interaction between imaging and object-oriented software is explored. Fee is required. (6 contact hours)

Prerequisite: ART-146 or consent of instructor

### **ART-186 Design I: Layout (3)**

This art/graphic design studio course focuses on the planning and design of print and digital page layout. Requires the creation of both single- and multiple-page documents detailing document construction, working with images, typography, and custom colors. Fee is required. (6 contact hours)

Prerequisite: ART-146 or consent of instructor

### **ART-205 Survey of Art I (3)**

A chronological survey of art, from prehistory through the Middle Ages. Included are artistic achievements of the Prehistoric, Ancient Near East, Ancient Egyptian, Greek, Roman, Early Christian, Byzantine, Carolingian, Ottoman Romanesque, Gothic periods, as well as major non-Western art traditions including Islamic, Indian, Chinese, Japanese, the Pre-Columbian Americas, and Africa. Field trip required. (3 contact hours)

IAI Code: F2 901

### **ART-206 Survey of Art II (3)**

A chronological survey of art from the Proto-Renaissance through the mid-nineteenth century. Included are artistic achievements of both Western and non-Western cultures. Styles and cultures include West Renaissance, Baroque, Rococo, Neoclassical, Romantic and Realistic periods. Non-Western covers India, China, Japan, Pacific cultures and Africa. Field trip required. (3 contact hours)

IAI Code: F2 902

### **ART-207 Survey of American Art (3)**

A chronological survey of the development of the visual arts in the United States from the colonial period through the present day. Early European influences, post World War II art and the contemporary art scene are included. Field trip required. (3 contact hours)

### **ART-208 Survey of Art III (3)**

A chronological survey of modern art from the mid-19th century through the present time. Beginning with Impressionism, artistic achievements associated with the development of art through movements such as Post-Impressionism, Cubism, Surrealism, Abstraction, and Contemporary art forms will be included. Field trip required. (3 contact hours)

IAI Code: F2 902

### **ART-209 Survey of Non-Western Art (3)**

A survey of non-Western art forms reflecting differing cultures and traditions found in the creative endeavors of Middle Eastern, South Asian, Far Eastern, Pre-Columbian Americas, Oceanian, and Subsaharan African artists. The

impact of non-Western art on the contemporary art scene will also be discussed. Field trip required. (3 contact hours)  
IAI Code: F2 903N

### **ART-230 Digital Design Internship (3)**

This internship provides an opportunity for students to learn first-hand how a computer artist/designer handles day-to-day assignments. Student interns either work directly with experienced designers approved by the internship coordinator or work on a freelance basis. They also attend a seminar for one hour per week to discuss internship activities and problems. and develop means to close the gap between theory and on-the-job reality. Fee is required. (11 contact hours)

Prerequisite: ART-182, ART-184, ART-186, and consent of internship coordinator or instructor

### **ART-231 Art Seminar (2)**

This course is designed for the student who is planning on transferring to a four-year institution as an art major. Provides an opportunity for guidance in portfolio preparation and offers opportunities to learn about careers in the visual arts. Through field trips to artists' studios, lectures, critiques, and hands-on situations, gain a better understanding of the role of the artist in contemporary society. (2 contact hours)

Prerequisite: ART-101, ART-104 or ART-105, ART-116, ART-118 and 6 credit hours with a minimum grade of "C" from ART-205, ART-206, ART-207, ART-208, ART-209 and permission of the department chair of Fine Arts/Humanities

### **ART-232 Digital Portfolio Development (3)**

This art/design studio course's primary orientation is the development of the student's portfolio. This course permits students to work on their portfolio for a semester in close contact with the instructor. Includes field trips to design organizations, galleries and museums to further enhance awareness of contemporary computer design. Fee is required. (4 contact hours)

Corequisite: Registration or credit in ART-248 or consent of instructor

### **ART-246 Advanced Computer Art (3)**

This art/graphic design studio course develops students' advanced skills in the digital creation and manipulation of visual images. This course permits students to work on computer-designed projects in close contact with the instructor. Fee is required. (6 contact hours)

Corequisite: Registration or credit in ART-248 or consent of instructor

### **ART-248 Design II: Interface (3)**

This art/graphic design studio course focuses on the planning and design of digital and interactive page layout.

Covers page planning, navigation, page-layout tools, and use of image maps. Uses appropriate software to enhance students' awareness of the latest technological advances. Fee is required. (6 contact hours)

Prerequisite: ART-182, ART-184, ART-186, or consent of instructor

### **ART-251 Digital Art/Design:Special Topics (3)**

Building on print and electronic layout, this art/graphic design studio course opens new design possibilities for devices for electronic publication on the Macintosh operating system and/or IOS. The topics to be covered during a particular semester will be identified in the college schedule of classes. A syllabus documenting the specific topics, description, learning outcomes and information about prerequisite skills will be available as each class is added to the schedule. Students may take this course two times but may not repeat a topic. (6 contact hours)

Prerequisite: ART-248 or consent of instructor

### **ART-280 Independent Studio: Drawing (3)**

This studio course is for students who have completed all coursework in the discipline of drawing. Students enter into a contract with the instructor to complete an agreed-upon body of work and/or project. (6 contact hours)

Prerequisite: Consent of Instructor

### **ART-281 Independent Studio: Painting (3)**

This is a studio course for students who have completed all coursework in the discipline of painting. Students enter into a contract with the instructor to complete an agreed-upon body of work and/or project. (6 contact hours)

Prerequisite: Consent of instructor

### **ART-282 Independent Studio: Ceramics (3)**

This is a studio course for students who have completed all coursework in the discipline of ceramics. Students enter into a contract with the instructor to complete an agreed-upon body of work and/or project. (6 contact hours)

Prerequisite: Consent of instructor

### **ART-283 Independent Studio: Photography (3)**

This is a studio course for students who have completed college-level coursework in photography. Students enter into a contract with the instructor to complete an agreed-upon body of work and/or project. Students supply black-and-white films, RC and/or fiber-based paper, 35mm manual camera, and other incidental supplies as needed. (6 contact hours)

Prerequisite: Consent of instructor

### **ART-284 Independent Studio: Design (3)**

This is a studio course for students who have completed all coursework in the discipline of design. Students enter into a

contract with the instructor to complete an agreed-upon body of work and/or project. Fee is required. (6 contact hours)

Prerequisite: Consent of instructor

## ASL—American Sign Language

### ASL-101 American Sign Language I (3)

This is the beginning course in American Sign Language (ASL). Basic vocabulary and grammatical structures are covered. Comprehension and correct production will be emphasized. ASL will be used as the method of instruction. Fee is required. (3 contact hours)

Prerequisite: RDG-071 or appropriate placement test score at or above RDG-091 level

### ASL-102 American Sign Language II (3)

This course is a continuation of American Sign Language I and builds on the vocabulary and grammatical structures in that course. Comprehension and production skills will be emphasized. ASL will be used as the method of instruction. Fee is required. (3 contact hours)

Prerequisite: ASL-101

### ASL-103 American Sign Language III (3)

This course is a continuation of American Sign Language II and builds on the vocabulary, grammatical structures and advanced comprehension and production skills. ASL will be used as the method of instruction. Fee is required. (3 contact hours)

Prerequisite: ASL-102

### ASL-104 Introduction to Interpreting (3)

This course will introduce the process of interpreting from ASL to English and English to ASL. Students will analyze source language (ASL and English) texts and translate them into the target (ASL or English), building to consecutive interpretations of prepared and spontaneous content. Theories of interpretation will be introduced and discussed. Fee is required. (3 contact hours)

Prerequisite: ASL-112

### ASL-110 Deaf Culture and History (3)

This course provides an overview of the history, language, education, and culture of persons who are diagnosed as deaf and hard of hearing. Topics covered will include types of hearing loss, history and significant figures in the deaf community, deaf education, legislation, autism, deaf culture, and cultural norms. Fee is required. (3 contact hours)

### ASL-112 Intro to Interpreting Professions (3)

This course provides an introduction to the field of Sign Language Interpreting. Topics include the role and function

of the interpreter, legislation and certification of interpreters. Additional topics include an introduction to interpreter ethics, interpreting environments and settings, and the history of the interpreting profession. Fee is required. (3 contact hours)

### ASL-114 Fingerspelling and Numbers in ASL (3)

This course will provide students with the tools and practice for successful production and reception of fingerspelling and numbers used in American Sign Language. Fee is required. (3 contact hours)

### ASL-120 Ethics for Interpreters (3)

This course focuses on the ethical decisions that interpreters make daily in their career. The RID Code of Professional Conduct, Educational Interpreter Performance Assessment Guidelines for Professional Conduct, and Demand Control Schema will be used to analyze and research ethical issues. Students will participate in group discussions and coursework to develop problem-solving and ethical decision-making skills. (3 contact hours)

Prerequisite: ASL-112

### ASL-121 Linguistics of ASL (3)

This course focuses on the linguistic principles of American Sign Language. Coursework will focus on phonemes, morphemes, semantics, pragmatics and other topics to increase understanding of the structure of American Sign Language. (3 contact hours)

Prerequisite: ASL-101

### ASL-122 Classifiers in ASL (3)

This course focuses on the use of classifiers in ASL. Students will analyze, discuss and demonstrate the different categories of classifiers. Production and comprehension of classifiers will be emphasized. Fee is required. (3 contact hours)

Prerequisite: ASL-101

### ASL-201 Advanced ASL (3)

This course completes the series of American Sign Language study begun with ASL-101. The complex aspects of ASL grammar and conversational dynamics will be covered and explored. Comprehension and production will be emphasized and evaluated. ASL will be used as the method of instruction. Fee is required. (3 contact hours)

Prerequisite: ASL-103

### ASL-202 Intermediate Interpretation (3)

This course will build on the skills developed in ASL-104, Introduction to Interpretation, and introduce students to simultaneous interpretation from ASL to English and English to ASL. Students will work from recorded and live

interactions and monologues. Fee is required. (3 contact hours)

Prerequisite: ASL-104

### **ASL-203 ASL to English Interpreting (3)**

This course focuses on the skills and theory required to receptively process and interpret from ASL to spoken English. Register, vocal tone and expression, word choice and message equivalence will be emphasized. Fee is required. (3 contact hours)

Prerequisite: ASL-104

### **ASL-204 Advanced Interpreting (3)**

This course concentrates on the continued development of ASL to English and English to ASL interpretation skills. Live mock and recorded interpretations will gradually increase in difficulty as the class progresses. Fee is required. (3 contact hours)

Prerequisite: ASL-202

### **ASL-205 Transliterating (3)**

This course will explore the theory and skills required to transliterate. Coursework and practice will focus on producing conceptually accurate American Sign Language in English word order with English mouth morphemes. Live mock and recorded English source material will be used and will gradually increase in difficulty as the class progresses. Fee is required. (3 contact hours)

### **ASL-206 Interpreting Practicum (2)**

This course is designed to expose students to real-world interpreting experiences under the supervision of a professional interpreter mentor. Class discussion and assignments will focus on the challenges and benefits of working in various settings, ethics and decision-making skills, and business practice. Students also will enroll in ASL-207, Interpreting Seminar, and meet weekly to discuss and plan their off-campus practicum experiences. Fee is required. (4 contact hours)

Corequisite: ASL-207 and consent of instructor

### **ASL-207 Interpreting Seminar (1)**

Students will meet to discuss and plan their off-campus practicum experiences in the co-requisite course ASL-206, Interpreting Practicum. (1 contact hour)

Corequisite: ASL-206 and consent of instructor

### **ASL-208 Interpreting in Educational Settings (3)**

This course will explore the theory and skills required to interpret in a K-12 educational setting. Coursework and practice will focus on ethical dilemmas and decision-making in a K-12 educational interpreting environment. Vocabulary commonly used in educational (K-12) settings will be discussed and practiced. Roles and responsibilities in a K-

12 setting will be discussed and analyzed. Child and language development will be covered and discussed. (3 contact hours)

Prerequisite: ASL-103 and ASL-104

### **ASL-209 Interpreting in Specialized Settings (3)**

This course focuses on interpreting in specialized settings (medical, legal, mental health, video relay, education, religious, etc.) and interpreting for deaf-blind individuals. Fee is required. (3 contact hours)

Prerequisite: ASL-103 and ASL-104

### **ASL-210 Advanced Vocabulary for Interpreters (3)**

This course focuses on increasing comprehensive and expressive vocabulary, history, cultural forms, idioms, slang, etymology, regional variations in the English language, and continued ASL vocabulary development will be covered in classroom activities and coursework. Fee is required. (3 contact hours)

Prerequisite: ASL-103 and ASL-104

## **AUT—Automotive Technology**

### **AUT-112 Introductory Automotive Technology (4)**

This course provides the automotive technology student career information about the automotive service industry. The class provides theory and related hands-on experience on live automobiles as a foundation for advanced automotive courses. Instruction includes engine testing and service procedures used on automobile systems and components. Fee is required. (6 contact hours)

### **AUT-114 Electrical/Electronic Systems I (4)**

This course provides instruction in basic electricity and electronics, including direct-current electricity, series and parallel circuits, and basic electronics. Theory, operation and testing of the starting, charging, lighting, and signaling systems are covered. The student will work with multimeters and other electrical test equipment in developing troubleshooting techniques. Fee is required. (6 contact hours)

Corequisite: Registration or credit in AUT-112

### **AUT-120 Automotive Service Advisor (3)**

This course provides the automotive technology student with the knowledge needed for a career as an automotive service consultant (service writer, assistant service manager). The class provides theory and related hands-on experience on live automobiles similar to those in an automobile dealership, independent shop, or franchise service center. Instruction includes consumer relations, internal relations, sales skills, shop operations, and preparation for achieving ASE certification as a service consultant. (4 contact hours)

Prerequisite: AUT-112 or consent of program coordinator

#### **AUT-121 Automotive Brake Systems (4)**

This course provides instruction in the theory of operation, diagnosis, and servicing of automotive disc and drum brake systems. Both standard and ABS brake systems are included. Service and troubleshooting of vacuum, hydraulic and electrical controls are covered. Fee is required. (6 contact hours)

Corequisite: Registration or credit in AUT-112

#### **AUT-125 Performance and Driveability I (4)**

Engine drivability through the fuel delivery system, from the fuel tank through fuel distribution components, including electric fuel pumps, fuel filters, fuel injectors, regulators, return systems, vapor recovery, idle air control, and air temperature control are covered. Fee is required. (6 contact hours)

Prerequisite: AUT-114

#### **AUT-127 Intro to Alternative Fuels (3)**

This course will address the need in the 21st century for alternative light-duty vehicles, their powerplants, and the energy sources used to propel them. Alternative fuel systems will be discussed as well as their advantages, disadvantages, and impact on passenger safety and the environment. Also included will be a discussion of some of the hybrid vehicles currently in use and the fuel cell as a means of replacing the internal combustion engine for generating electricity. (3 contact hours)

Prerequisite: AUT-125

#### **AUT-214 Electrical/Electronic Systems II (4)**

This is a course in advanced automotive electronics with an emphasis on understanding and diagnosis of electronic ignition systems, computerized engine control systems, and non-engine-related computer systems. Fee is required. (6 contact hours)

Prerequisite: AUT-114

#### **AUT-232 Performance & Driveability II (4)**

This is an advanced course in engine drivability and fuel management diagnosis. Emphasis on proper diagnostic procedures, use of scan tools, digital oscilloscopes, and exhaust gas analyzers are covered. Fee is required. (6 contact hours)

Prerequisite: AUT-125

#### **AUT-233 Seminar (1)**

Discussion of internship activities and problems, a student's performance, and any questions arising out of an internship. Development of professional attitude. Course strives to narrow the gaps between theory and on-the-job reality. (1 contact hour)

Prerequisite: Complete a minimum of 5 AUT classes or be in the third semester of the AUT program Corequisite: Registration in AUT-237 and consent of instructor

#### **AUT-234 Steering and Suspension Systems (4)**

This course covers theory of operation, diagnosis, maintenance, repair, and adjustment procedures pertaining to steering and alignment. Lab work includes two- and four-wheel alignment, servicing rack and pinion steering systems, conventional and MacPherson strut-suspension systems. Fee is required. (6 contact hours)

Prerequisite: AUT-112

#### **AUT-236 Auto Engine Reconditioning (4)**

This course covers recognizing and diagnosing causes of engine failure and procedures necessary to repair or build an automotive engine. Lab work consists of use of precision measuring tools, restoration of tolerance by machining engine components, and proper disassembly and assembly procedures. Fee is required. (6 contact hours)

Prerequisite: AUT-112

#### **AUT-237 Internship (3)**

At AUT internship sites under the supervision of a certified ASE technician, students will diagnose and repair problems involving automotive components relating to the industry in which the student is employed. Fee is required. (15 contact hours)

Prerequisite: Complete a minimum of 5 AUT classes or be in the third semester of the AUT program. Corequisite: Registration in AUT-233 and consent of instructor

#### **AUT-240 Manual Transmissions and Drivelines (4)**

Studies manual drive transmissions and transaxles. (6 contact hours)

Prerequisite: AUT-112

#### **AUT-242 Automatic Transmissions (4)**

Students study automatic transmissions and transaxles, clutches, linkages, cables, in-vehicle and off-vehicle component repairs, bands and drums. Emphasizes problem assessment, theory of operation and overhaul procedures. Fee is required. (6 contact hours)

Prerequisite: AUT-112

#### **AUT-244 OBDII and Emission Control Systems (4)**

Diagnosis and service of advanced computerized engine control systems (OBDII) and IM240 testing procedures are the main concepts covered. Detailed instruction on the use of advanced electronic testing equipment used in the diagnosis of these systems is covered in-depth. Fee is required. (6 contact hours)

Prerequisite: AUT-232

**AUT-246 Heating & Air Conditioning Systems (4)**

Explores theory, operation, testing, and servicing of automotive heating and air conditioning systems. Laboratory work includes proper handling of refrigerants, troubleshooting, repairing, and servicing of these systems. Students also may gain certification in recycling and recovery of refrigerants. Fee is required. (6 contact hours)

Prerequisite: AUT-112

**BIO—Biology****BIO-104 Biology of Human Life (4)**

This general education non-majors biology course emphasizes scientific inquiry through a breadth of selected concepts using humans as the study organism. Concepts include cell and molecular biology, human structure and function, human genetics and heredity, evolution, ecology and sustainability. Biological issues with personal and social implications will be clearly integrated through the course and may include human health and applications of technology. This course contains a laboratory component. Fee is required. (6 contact hours)

IAI Code: L1 904L

**BIO-111 General Biology I (4)**

Scientific methods, biochemistry, cellular biology, cellular reproduction, classical and molecular genetics are covered with an emphasis on processes. This course includes a laboratory component. Fee is required. (6 contact hours)

IAI Code: L1910L and BIO910

**BIO-112 General Biology II (4)**

Structure and function of the major systems of animals, plants, fungi, protista and bacteria are covered. Origin of life, ecology, classification and evolution are also studied. Animal dissection is included. Note: BIO 111 is recommended prior to taking this course. This course includes a laboratory component. Fee is required. (6 contact hours)

IAI Code: L1910L and BIO910

**BIO-115 Anatomy and Physiology (5)**

This is a one-semester survey course of anatomy and physiology of the human body. All of the major body systems are covered in this course. The course is designed primarily for students in programs that require only a one-semester survey course in anatomy and physiology. Examples of applicable programs include health information technology, medical assistant, sleep technology, recreation therapy, and fitness trainer. This course will not satisfy the anatomy and physiology requirements for programs in nursing, radiologic technology, or respiratory therapy. Fee is required. (6 contact hours)

Prerequisite: BIO-111 is strongly recommended

**BIO-119 Introductory Microbiology (4)**

This course introduces microbial life, including morphology, staining, genetics, physiology and biochemistry of bacteria, archaea, fungi, protozoa, algae and helminthes. Medical significance of these organisms is covered, as is the significance of viruses, prions and viroids. It is strongly recommended that students select one of the following courses prior to taking this course: BIO 111, CHM 111, or CHM 131. This course includes a laboratory component. Fee is required. (6 contact hours)

IAI Code: L1 903L

**BIO-180 Human Anatomy & Physiology I (4)**

The first course of a two-course sequence, this course presents an integrated approach to structure and function of the human body. Laboratory time is allocated to working with the human cadaver and other mammalian specimens. Models, prepared slides, and physiological experiments, including instrumentation, are also part of the laboratory learning experience. Emphasizes normal microanatomy and physiological principles of human cells, tissues, skeletal elements, and the musculature, and nervous systems. It is recommended that students complete BIO-111 or BIO-115 prior to taking this course. Fee is required. (6 contact hours)

**BIO-181 Human Anatomy & Physiology II (4)**

The second of a two course sequence, this course covers the structure and function of humans as related to the endocrine, circulatory, lymphatic, respiratory, digestive, and urinary systems; homeostatic mechanisms; human embryology and reproduction; electrolyte balance; and stress physiology. Laboratory time is allocated to working with the human cadaver and other mammalian specimens. Models, prepared slides, and physiological experiments, including instrumentation, are also part of the laboratory learning experience. Fee is required. (6 contact hours)

Prerequisite: BIO-180

**BIO-182 Human Anatomy Lab I (2)**

This is the first of a two-course laboratory sequence using a human cadaver to study gross anatomy. Emphasis will be placed on gross anatomy of the integument, skeletal, cardiovascular, muscular, and respiratory systems. Fee is required. (3 contact hours)

Prerequisite: BIO-115 or BIO-180 and provide evidence of current tetanus vaccination to the instructor

**BIO-183 Human Anatomy Lab II (2)**

This is the second of a two-course laboratory sequence using a human cadaver to study gross anatomy. Emphasis will be placed on gross anatomy of the digestive, nervous, special sense, urinary, endocrine, and reproductive systems. Fee is required. (3 contact hours)

Prerequisite: BIO-181 and BIO-182 or consent of instructor, and provide evidence of current tetanus vaccination to the instructor

### **BIO-211 Zoology I (4)**

Study of the natural history, morphology and physiology of invertebrate animals. Emphasizes midwestern forms, including distribution, feeding habits, reproduction, economic importance, and classification. Fee is required. (6 contact hours)

Prerequisite: BIO-111 or consent of instructor

### **BIO-212 Vertebrate Zoology (4)**

This course covers the structure and function of animal systems and their evolutionary relationships. Examines taxonomy, ecology, behavior, and distribution of representative animals. Fee is required. (6 contact hours)

Prerequisite: BIO-111 or consent of instructor

### **BIO-215 Physiology of Health & Disease (3)**

This course includes functional interrelationships between body systems in health and disease. Emphasizes application of physiological concepts in problem solving. (3 contact hours)

Prerequisite: BIO-115 or BIO-181

### **BIO-220 Ecology & Field Biology (4)**

This course introduces general ecology. Includes field approach of measuring environmental factors in order to understand the ecosystem concept. Interrelationships of organisms, including humans and their environment, are explored. Field work and field trips are included. Fee is required. (6 contact hours)

Prerequisite: BIO-111 or consent of instructor

### **BIO-221 Introduction to Marine Biology (4)**

This course focuses on the biology and ecology of marine ecosystems and oceanography. The biological, chemical, physical, and geographical factors of marine ecosystems are explored, including the inter-tidal zones, sandy and rocky shores, the ocean floor, seagrass, mangroves, coral reefs, open ocean, and the abyss. A survey of the biodiversity of marine organisms includes algae, plankton, invertebrates, reptiles, birds, fishes, and mammals. Behavioral characteristics of unique species are discussed. The impact of humans on the marine environment, conservation, and management are highlighted. Research, laboratory, and field techniques are emphasized. Field work and field trips are included. Fee is required. (6 contact hours)

Prerequisite: BIO-111

### **BIO-230 Botany (4)**

Lecture and lab illustrate the diversity of simple and complex plants. Covers the structure of roots, stems, leaves, flowers, and fruits; physiology of growth and response to environmental factors; and local plant ecology stressing community types, biomes and succession. Fee is required. (6 contact hours)

Prerequisite: BIO-111 or consent of instructor

### **BIO-240 Biology Research (2)**

This course provides undergraduate research experience. Students will actively participate in selecting and planning a research experience, read and critique scientific articles related to research interests, and write a scientific paper to describe and document the research. Students will be expected to work independently with guidance from faculty. It is strongly recommended that students first complete a college-level general biology course. Students must propose their independent research project to the instructor to gain consent for enrollment. Fee is required. (2 contact hours)

Prerequisite: Consent of instructor

## **BUS—Business**

### **BUS-100 Introduction to Business (3)**

This course will provide the student with the opportunity to develop concepts, attitudes, and ideas about the nature of business and the environment in which it operates. Types of business ownership, management, marketing, finance, accounting, human resources, labor-management relations, ethics and other related topics are covered. (3 contact hours)

### **BUS-105 Small Business Management (4)**

Studies fundamentals of the organization and operation of a small business. Examines the problems of initial decisions: location, planning, financing, legal concerns, marketing and managing the small business. (4 contact hours)

### **BUS-107 Fundamentals of Accounting (2)**

This course is designed for two types of students: those with no high school or career accounting background who feel the need for introductory work prior to taking BUS-142 (Financial Accounting) and students that do not wish to take BUS-142, but would like to learn some accounting basics. Emphasis is placed on basic bookkeeping and accounting concepts. Topics will include: journalizing, posting, adjusting entries, financial statements, closing entries, and payroll. The course also will examine some accounting differences between a sole proprietorship, partnership, and corporation. This is a nontransfer course. (2 contact hours)

**BUS-110 Legal Environment in Business (3)**

A study of the modern legal and social environment of business, with emphasis on the regulation of business by government statutes, administrative regulations, and court decisions. Areas of concentration include: tort law, consumer protection law, employment law, labor law, and securities law. (3 contact hours)

**BUS-120 Business Mathematics (3)**

This practical course covers mathematics of accounting, management, marketing, and finance. Topic coverage includes sales and property taxes, checkbook reconciliations, payroll, depreciation, trade and cash discounts, markup, review of financial statements, and both simple and compound interest calculations. (3 contact hours)

Prerequisite: MTH-090 or appropriate math placement test score

**BUS-130 Principles of Marketing (3)**

This course emphasizes key concepts and issues underlying the modern practice of marketing. It includes an analysis of consumer and industrial markets and development and operation of a marketing program emphasizing domestic marketing of manufactured goods. (3 contact hours)

**BUS-131 Principles of Retailing (3)**

This course examines the fundamentals that support the success of a retail business based on the five components of merchandising: planning, product, placement, price, and promotion. The student will learn the concepts behind effective strategic retail planning as practiced by different types of retail institutions: location selection, buying, selling, advertising, store management, pricing, customer services, and financing. Includes management of human resources and information systems. (3 contact hours)

**BUS-133 Salesmanship (3)**

This course focuses on the actual processes involved in the successful selling of products, services, and ideas to both organizational and final customer markets. The student will learn the principles and techniques used in prospecting and preparation, approaching, demonstrating, meeting objection, sale closing, and follow-up. Topics also include buying motives, sales psychology, and the attitudes and attributes of successful sales professionals. Applies to selling both tangible products and intangible services to both organizational and final customer markets. (3 contact hours)

**BUS-134 International Business (3)**

This course introduces the student to the fundamentals of international marketing, analysis of international business opportunities, market entry strategies and finances,

business in the global workplace, the impact of cultural environments on the decision-making process, and the impact of foreign economies on United States business. (3 contact hours)

**BUS-135 Personal Finance (2)**

This course introduces the topics associated with the management of personal financial affairs. The course deals with many topics that an individual must face in his or her lifetime, such as taxes, credit purchases, insurance, and investing. (2 contact hours)

**BUS-136 Business Law (3)**

This course provides an introduction to law, examining topics such as contracts, sales and bailments, agency, employment, real and personal property, partnerships and corporations, and the common law as modified by the Uniform Commercial Code (UCC). The case method and problem solving are used to show the legal problems affecting business contracts. (3 contact hours)

**BUS-142 Financial Accounting (4)**

This course introduces the basics of financial accounting with emphasis on accounting as an information system which aids in the decision-making process. The focus is on the analysis and classifying of accounting information necessary for the preparation of external general-purpose financial statements. Topics include transaction analysis, development of financial reports, the accounting cycle, accruals and deferrals, receivables, payables, payroll, promissory notes, inventory costing, plant assets and depreciation methods, corporate equity concepts, bonds payable, and present value. Students with no high school or career accounting background, who believe they need introductory work, should take BUS-107 prior to taking this course. (4 contact hours)

Prerequisite: MTH-090 or appropriate math placement test score IAI Code: BUS903

**BUS-143 Managerial Accounting (4)**

This second semester accounting course presents accounting as a system of producing information for the use of internal decision-makers. The course emphasizes the identification, accumulation, and interpretation of information for planning, controlling, and evaluating the performance of the separate components of a business. Topics include both job-order and process cost systems, cost-volume-profit analysis, budgeting, performance evaluation, differential analysis, capital investment analysis, and activity-based costing. (4 contact hours)

Prerequisite: BUS-142 IAI Code: BUS904

**BUS-145 Computer Applications in Accounting (3)**

This course introduces the student to the use of the accounting software. The student will gain a practical

knowledge of computerized accounting applications including accounts receivable, accounts payable, purchasing, invoicing, payroll, budgeting, and reporting. The course assumes a basic knowledge of personal computers, as well as a working knowledge of the accounting cycle. (3 contact hours)

Prerequisite: BUS-142

**BUS-148 Introduction to Finance (3)**

This course introduces corporate financial management. Topics include profit maximization, valuation theory, risk and return concepts, and techniques for managing current assets, fixed assets, and capital structure. (3 contact hours)

Prerequisite: BUS-142

**BUS-155 Display & Visual Merchandising (3)**

Design and create merchandising displays to cultivate positive customer attitudes toward a store or department for the purpose of selling merchandise. (3 contact hours)

**BUS-170 Introduction to Human Resources (3)**

This course introduces the student to the policies and practices of employment agencies and personnel offices. Topics include recruiting, advertising, interviewing, counseling, placement, marketing, ethics, public relations, and labor law. (3 contact hours)

**BUS-199 Special Topics (1-4)**

This course covers emerging topics of interest to business. The topics to be covered will be identified with narrative by section number in the college schedule of classes. A syllabus documenting topics, description, objectives, and information about prerequisite skills will be available for each section. This course may be repeated up to three times for credit as long as different topics are selected. Fee may be required. (1-4 contact hours)

**BUS-200 Consumer Behavior (3)**

Introduces the consumer and organization decision process in selection, acquisition, and use of products and services. Examines influences on consumer behavior that can be considered by marketers in developing marketing strategies and tactics. (3 contact hours)

**BUS-215 Employee Training and Development (3)**

Provides experience for the human resources professional in developing, designing, implementing, and evaluating employee training and development programs. Covers skill-based and employee development training methods for both on-site and off-site training. (3 contact hours)

**BUS-226 Business Ethics (3)**

This case-oriented course introduces moral issues associated with industry and commerce. Major ethical systems are explored. Encourages ethical methodology.

Note: Only three credit hours can be earned for either BUS-226 or PHI-226. Duplicate credit in both courses will not be awarded. (3 contact hours)

**BUS-230 Advertising (3)**

Covers advertising as an institution in society, a tool of marketing, and a process of mass communication. Explores the elements of developing effective advertising campaigns, including setting objectives, establishing budgets, creating messages, selecting media, and evaluating results. (3 contact hours)

**BUS-231 Principles of Management (3)**

Examines the foundations and nature of managing both profit and nonprofit organizations in a dynamic global environment. Studies the major management functions of planning and decision making, organizing, leading, and controlling. Emphasis is placed on ethics, diversity and teamwork. The nature of authority, responsibility, and accountability along with "line" and "staff" organizations also are closely reviewed. (3 contact hours)

**BUS-232 Human Resources Management (3)**

The Civil Rights Movement, federal manpower development programs, Fair Labor Standards Act, Social Security Act, and their impact upon management and personnel are explored. (3 contact hours)

**BUS-233 Internship (3)**

Planned and supervised career field experience relating to the student's degree program. Fee is required. (3 contact hours)

Prerequisite: Consent of instructor Corequisite: Registration in BUS-237

**BUS-235 Personal Development (2)**

Business psychology dealing with attitudes and concepts, including personal efficiency, human relations, motivation, and personality health for personal leadership are covered. (2 contact hours)

**BUS-237 Seminar (1)**

Discuss internship activities and issues, and development of professional attitude. Closes gaps between theory and on-the-job reality. (1 contact hour)

Prerequisite: Consent of instructor Corequisite: Registration in BUS-233

**BUS-240 Intermediate Accounting I (3)**

A study of the theory concepts and generally accepted accounting principles underlying the preparation of external accounting reports for corporate organizations. Topics include preparation of financial statements, the time value

of money, cash, receivables, inventories, and plant and intangible assets. (3 contact hours)

Prerequisite: BUS-143

### **BUS-241 Intermediate Accounting II (3)**

Continuation of the study of generally accepted accounting principles underlying external financial reporting. Topics emphasized include current long-term liabilities, stockholders' equity, dilutive securities and earnings per share, investments and revenue recognition. Accounting for income taxes, pensions, leases, and the statement of cash flows also are covered. (3 contact hours)

Prerequisite: BUS-240

### **BUS-242 Cost Accounting (3)**

Covers managerial accounting topics in more detail. Emphasizes the role of accounting in virtually all aspects of an organization. Topics include organizational strategy, quality control, internal cost allocations, product and service costing methods, cost control techniques, cost analysis, and budgeting. (3 contact hours)

Prerequisite: BUS-143

### **BUS-243 Federal Income Taxes (3)**

Includes a comprehensive explanation of federal tax structure and training in application of tax principles to specific problems. Focuses on theory of tax law and the ability to identify tax problems. (3 contact hours)

Prerequisite: BUS-142

## **CGI—Computer Graphics Imagery**

### **CGI-101 Orientation to CGI Careers (1)**

This course is an introduction to careers in the field of computer generated imagery (CGI) technology. The course provides a survey of the CGI professions and the associated qualifications and skills required for positions in the career field. Students will be required to research employment skills and knowledge, field-specific definitions, professional certifications and associations, current issues in the field, and salaries. A complete self-assessment survey and student study plan will be created by the students. (1 contact hour)

### **CGI-102 Computer Graphics I (2)**

This course provides an introduction to computer generated imagery. CGI is used in modern engineering, science visualization, medicine, architecture, product design, printed media, films, television programs, and geology. The course will introduce the basic concepts in computer generated imagery, including: using software-embedded tools (Photoshop) sizing and cropping, colors and color correction techniques, collages and masking techniques,

layering, special effects, filtering, and printing and plotting. Fee is required. (3 contact hours)

### **CGI-103 2D Graphic Design (3)**

This course introduces students to the basics of two-dimensional design concepts used for the production of graphic communications. Emphasis is placed on learning the fundamental tools, theories and principles of design. Students will design layouts for production from electronic formats for outputting to a variety of print media. Adobe Illustrator will be the primary software program used. Fee is required. (4 contact hours)

### **CGI-104 Computer Animation I (3)**

This course provides the basics of creating two-dimensional animated vector-based content using Adobe CS6 Flash. The course will focus on engineering and problem-based animation. Students will learn how to create interactive vector graphics and animations. Fee is required. (4 contact hours)

### **CGI-110 Computer Storyboarding (2)**

This course is designed to introduce the basic concepts of computer-generated imagery storyboarding. Students will produce scripts, sequences, treatments, interaction and storyboard descriptions and images. The course will compare the differences between the working production storyboards used in computer animation, multimedia, and video. There will be a focus on the business, design and engineering application of storyboarding. Fee is required. (3 contact hours)

### **CGI-114 Computer Animation II (3)**

This course will focus on problem-solving and applications of computer-generated animation. Topics include advanced concepts of animating Flash using Action Script and Flash controllers. The course will include examples of engineering and design application for computer-generated animation. Students will learn how to animate characters, objects, and environments. Students will learn to create classes of animations and the use of automation in the animation process. Fee is required. (4 contact hours)

Prerequisite: CGI-104 or MDT-281

### **CGI-116 3D Computer Animation I (3)**

This course introduces 3-D Animation using Autodesk 3DS Max software. Students will learn the basics of animation, modeling techniques, applying materials, lighting a scene and the rendering process. These include creating and adjusting objects with modifiers, applying mapping coordinates, controlling the lighting in a scene, key-framed animation, and outputting rendered animated sequences. Fee is required. (4 contact hours)

**CGI-118 Applied Animation Techniques (3)**

This course covers the applied techniques of 3D modeling, rendering and animation. Students learn the applied concepts and techniques of modeling with modification techniques that use the materials editor, special effects lighting, geometric modifiers, keyframing, and trackview to derive practical animation solutions to complex animated effects. Fee is required. (4 contact hours)

Prerequisite: CGI-116

**CGI-120 3D Computer Animation II (3)**

This course covers applied character animation. Students will learn the concepts and techniques required to construct and animate biped characters. The interoperability of the 3DS MAX character systems and Motion Builder program will be explored. Topics will cover the design, structuring, animating and realistic skinning of characters. Fee is required. (4 contact hours)

Prerequisite: CGI-116 or MDT-275

**CGI-122 3D Computer Character Modeling (3)**

This course will provide students with a basic understanding of the concepts and skills required for the designing, building and mapping of 3-D computer characters. The fundamental concepts of character design will be explored for producing hi-resolution and low-polygon count models. Students will learn a variety of modeling techniques necessary to build and properly map models. Fee is required. (4 contact hours)

Prerequisite: CGI-116 or MDT-275

**CGI-126 Computer Physics Simulation (3)**

This course covers the simulation and physical behaviors of complex models in a 3-D environment. Students will learn the applied concepts and techniques required for creating realistic physics-based animations. This course will introduce the concepts needed to control the attributes of dynamic and static rigid bodies. Fee is required. (4 contact hours)

Prerequisite: CGI-116 or MDT-275

**CGI-130 Effects and Compositing (3)**

The purpose of this course is to provide the student with a basic understanding of image compositing in 2D & 3D space. The fundamental concepts of creating composites, paint projects, developing animations, and applying visual effects will be introduced. Students will learn how to combine layers, 3D Animations and effects into composites. Primary software used will be Adobe After Effects CC. Fee is required. (4 contact hours)

Prerequisite: CGI-102 or permission of the instructor

**CGI-199 Topics (1-3)**

This course covers emerging topics of interest to Computer Generated Imagery. The topics to be covered will be identified with narrative by section in the college schedule of classes. A syllabus documenting topics, description, objectives, and information about prerequisite skills will be available for each section. This course may be taken up to three times for credit as long as different topics are selected. Fee is required. (1-4 contact hours)

**CGI-210 Introduction to Game Design (3)**

This course will introduce the student to computer game design. Students will study the application of games for entertainment, learning and problem-solving. A variety of computer game types will be explored including the history and future of computer games. Students will learn to analyze, evaluate and review computer games. Game design theory and concepts will be introduced. Students will develop ideas for games. Marketing and presentation topics will be investigated. Fee is required. (4 contact hours)

**CGI-212 Game Design Elements (3)**

This course surveys the design elements used in game design. Emphasis is placed on the creation of digital maps which could be applied within a game or virtual set. Applications include digital content such as environmental backgrounds, buildings, characters and props. Within a collaborative setting students will research and design the digital content as used in a professional studio. This course is intended for students to enhance their working skills in Photoshop, material creation and mapping as they work with characters in 3-D environments. Fee is required. (4 contact hours)

Prerequisite: CGI-102 or MDT-100 Corequisite: Registration or credit in CGI-210

**CHM—Chemistry****CHM-111 Fundamentals of Chemistry (4)**

An introductory course with laboratory in the basic fundamentals of inorganic chemistry with an introduction to organic, nuclear and biochemistry. Topics include metric system, atomic theory, nomenclature, bonding, stoichiometry, properties of matter, solutions, acids and bases, pH, and organic functional groups. The course does not assume that students have had high school chemistry, and is intended for nonscience liberal arts students and those who plan to pursue a career in allied health or nursing. The course is also designed as an entry-level course for CHM-131 for students who need a chemical foundation prior to enrolling in university-oriented chemistry. Fee is required. (5 contact hours)

Prerequisite: One year of high school algebra, or consent of instructor IAI Code: P1 902L

**CHM-131 Chemistry (University Oriented) I (4)**

Principles and theories of inorganic chemistry; molecular, atomic, nuclear and electronic theories of matter related to the periodic table; oxidation-reduction; and theories of solution are explored. For students in chemistry, chemical engineering, or physical science programs. This course includes a one-hour laboratory component. Fee is required. (6 contact hours)

Prerequisite: CHM-111 or one year of high school chemistry IAI Code: P1902L and CHM911

**CHM-132 Chemistry (University Oriented) II (4)**

Principles of chemical equilibrium applied to dissociation, solubility and hydrolysis in aqueous solution are covered. Studies metals, nonmetals and their compounds. Procedures for separation and identification of common metallic and nonmetallic ions are emphasized. Fee is required. (6 contact hours)

Prerequisite: CHM-131 IAI Code: CHM911

**CHM-200 Survey of Organic Chemistry (5)**

This one-semester survey of organic chemistry includes an introduction to the structure, nomenclature, properties, preparation, and reactions of functional groups, and provides an overview of biochemistry. This course is intended for students whose curriculum requires only one semester of organic chemistry. This course will not satisfy the prerequisites for either CHM-203 or CHM-204. This course includes a two-hour laboratory component. Fee is required. (6 contact hours)

Prerequisite: CHM-111 or CHM-131

**CHM-203 Organic Chemistry I (5)**

Modern concepts of the structure of organic compounds; correlation between structure, spectroscopy and properties are explored. Reactions, reaction mechanism, study of aliphatic and aromatic hydrocarbons, alkyl halides, alcohols, ethers, and carboxylic acids are covered. Fee is required. (7 contact hours)

Prerequisite: CHM-132 IAI Code: CHM913

**CHM-204 Organic Chemistry II (5)**

Studies of carboxylic acids, aldehydes, ketones, amines, phenols, carbohydrates, amino acids, proteins and lipids will be covered. Fee is required. (7 contact hours)

Prerequisite: CHM-203 IAI Code: CHM914

**COL—College Introduction****COL-101 College:Changes, Challenges, Choices (1)**

Provides an opportunity to assess your purpose for college, assess your study strategies, set college and career goals, examine your values and decision-making skills, and develop an appreciation for diversity. This course is a

requirement for all entering first-time, full-time students. (1 contact hour)

**COM—Communication****COM-085 Sentence and Paragraph Writing (4)**

This course is designed to help students understand and use the basics of grammar and punctuation with simple, compound and complex sentences, and to use these sentences to develop effective paragraphs. Credit hours for this course can be applied to full- or part-time status, but will not count toward graduation credits unless specified in your certificate or degree program. This course may be taken up to three times to accomplish a grade of "C" to satisfy requirements for the next course in the sequence. (4 contact hours)

**COM-090 Paragraph and Theme Writing (3)**

Understand and write basic paragraphs and short themes. Covers developing the topic sentence, ordering ideas and achieving coherence in paragraphs, and incorporating paragraphs into essays. Credit hours for the course can be applied to full- or part-time student status, but will not count toward graduation credits unless specified in your certificate or degree program. This course may be taken up to three times to accomplish a grade of "C" to satisfy requirements for the next course in the sequence. (3 contact hours)

Prerequisite: COM-085 with minimum grade of "C" or appropriate placement test score

**COM-098 COM-Bridge (1)**

This course supplements COM-101 instruction for students enrolled in the Bridge Program. Covers developing the topic sentence, ordering ideas and achieving coherence in paragraphs, and using research to clarify explanations and support arguments. This course runs in tandem with linked COM-101 section. In order to earn a passing grade in COM-101, students must earn a "C" or better in both COM-098 and COM-101. Credit hours for this course can be applied to full- or part-time status, but will not count toward graduation credits unless specified in your certificate or degree program. (2 contact hours)

Prerequisite: Appropriate score on composition placement test and RDG-071 with a minimum grade of "C" or appropriate score on reading placement test Corequisite: COM-101

**COM-101 Composition I (3)**

Designed to teach clear and effective expository prose, with emphasis on organization, clarity and coherence. Learn to adapt style to various readers and use research to clarify explanations and to support arguments. A grade of "C" or better is required for this course to transfer under the guidelines of the Illinois Articulation Initiative (IAI). Fee is required. (3 contact hours)

Prerequisite: COM-090 or IEL-086 with a minimum grade of "C" or appropriate score on composition placement test, and RDG-091 or IEL-096 with a minimum grade of "C" or appropriate score on reading placement test IAI Code: C1 900

### **COM-102 Composition II (3)**

Analytical and critical writing based upon texts. Research is used to incorporate supporting ideas drawn from primary and secondary sources. A grade of "C" or better is required for this course to transfer under the guidelines of the Illinois Articulation Initiative (IAI). Fee is required. (3 contact hours)

Prerequisite: COM-101 with a minimum grade of "C" IAI Code: C1 901R

### **COM-103 Speech Fundamentals (3)**

Introduction to basic oral communication principles and skills, challenges of cultural diversity and gender equity. Includes study and practice in public speaking and discussion, preparation and organization, and delivery techniques. This course satisfies the requirements of Public Act 87-581. (3 contact hours)

IAI Code: C2 900

### **COM-105 Writing Laboratory (1)**

Develops job-related communication skills, research paper skills and writing skills for personal improvement. Credit hours for the course can be applied to full- or part-time student status, but will not count toward graduation credits unless specified in your certificate or degree program. This course may be taken four times for credit. (2 contact hours)

### **COM-106 Creative Writing, Poetry (3)**

This course is an examination and application of prosody, textual conventions, and theories of writing poetry through analysis and student writing. (3 contact hours)

Prerequisite: COM-101 or consent of instructor

### **COM-107 Creative Writing, Fiction (3)**

This course is an exploration and application of techniques, conventions and theories of writing fiction through analysis and student writing. (3 contact hours)

Prerequisite: COM-101 or consent of instructor

### **COM-108 Creative Writing Literary Nonfiction (3)**

This course is an exploration and application of techniques, conventions and theories of writing literary non-fiction through analysis and student writing. The study of non-fiction forms will include memoir, profile, literary journalism, and stories of craft. Additional ways to tell the non-fiction story also will be addressed, including humor, visuals, and multigenre pieces. Emphasis will be placed on the writing and creative process. (3 contact hours)

Prerequisite: COM-101 or consent of instructor

### **COM-111 Technical Communications I (3)**

Introduces basic theories of communication. Emphasizes writing development, including technical writing, letter writing and grammar. Fee is required. (3 contact hours)

Prerequisite: COM-090 or IEL-086 or appropriate placement test score

### **COM-112 Technical Communications II (3)**

Theory and practice of oral communication are discussed. Emphasizes group discussion, listening skills, and informative and persuasive speaking. (3 contact hours)

### **COM-120 Introduction to Linguistics (3)**

Fundamentals of linguistics are covered. Emphasize speech behavior as interaction. Topics include origins, functions and limitations of language. (3 contact hours)

### **COM-123 Applied Forensics (3)**

Includes instruction and practical experience in competitive speech events, such as impromptu and persuasive speaking, rhetorical analysis and oral interpretation. Selection, analysis and preparation of material are covered. Competitive performance is required. Cannot be repeated for credit. (5 contact hours)

Prerequisite: Consent of instructor Corequisite: Participation on Forensics Team

### **COM-125 Tutoring Internship (1)**

An introduction to tutoring in the Writing Center with emphasis on the interaction between tutor and client, and the options and strategies open to tutors to manage the tutoring session. Includes a review of grammar, writing skills, research and documentation, and a survey of the types of writing done in various disciplines at the college. This course may be taken four times for credit. (1 contact hour)

Prerequisite: COM-101 and COM-102 both with a minimum grade of "C" and consent of instructor

### **COM-151 Student Publications Seminar (1)**

Earn up to four credit hours for participation in production of student publications. Includes weekly seminars. Teaches communication skills and publication production. (2 contact hours)

### **COM-152 Student Publications Seminar (1)**

Earn up to four credit hours for participation in production of student publications. Includes weekly seminars. Teaches communication skills and publication production. (2 contact hours)

### **COM-153 Student Publications Seminar (1)**

Earn up to four credit hours for participation in production of student publications. Includes weekly seminars. Teaches

communication skills and publication production. (2 contact hours)

#### **COM-154 Student Publications Seminar (1)**

Earn up to four credit hours for participation in production of student publications. Includes weekly seminars. Teaches communication skills and publication production. (2 contact hours)

#### **COM-201 Business and Technical Writing (3)**

Improves writing in a variety of business and technical fields, both in college and on the job. (3 contact hours)

Prerequisite: COM-101 or COM-111

#### **COM-203 Interpersonal Communication (3)**

Introduces the study of interaction between people that focuses on the importance of sensitivity to various communications. Provides a communication perspective of interpersonal relationships, covering relational maintenance and decline, listening, conflict, the self-concept, cultural impacts on relationships, and interpersonal communication in work and family contexts. (3 contact hours)

#### **COM-204 Argumentation (3)**

This course will emphasize principles and methods of critical decision-making through argumentation and debate, including analysis of issues; collection and evaluation of evidence; evaluation of argument and reasoning; techniques of attack and defense in oral argumentation. Students will engage in formal debate. (3 contact hours)

Prerequisite: COM-101 or COM-103

### **COS—College Skills**

#### **COS-100 College Skills I (1-6)**

Techniques for improving reading skills, including basic word attack, comprehension, interpretation, skimming, scanning. Techniques for improving listening, note-taking, test-taking and study methods. Credit hours for this course can be applied to full- or part-time student status, but will not count toward graduation credits unless specified in your certificate or degree program. This course may be taken four times for credit. (1 to 6 contact hours)

### **CRJ—Criminal Justice**

#### **CRJ-101 Introduction to Criminal Justice (3)**

Covers the American criminal justice system and its processes. Introduces crime statistics, crime causation theories, and criminal law as tools of the justice system; the function of law enforcement, courts and corrections; a sampling of international criminal justice systems; and career opportunities and resources. (3 contact hours)

IAI Code: CRJ901

#### **CRJ-105 Criminology (3)**

Examines crime and criminal behavior. Introduces criminology; views of crime; major explanations of crime; strategies designed to reduce the crime rate; and types of crime, such as violent, political, organized, and property. (3 contact hours)

IAI Code: CRJ912

#### **CRJ-106 Introduction to Corrections (3)**

Examines the development of the correctional system. Describes the various forms of punishment and presents correctional ideologies, including punishment, treatment and crime prevention. Traditional institutions, community-based programs and other options are analyzed. (3 contact hours)

IAI Code: CRJ911

#### **CRJ-107 Juvenile Delinquency & Procedures (3)**

Covers the juvenile justice system. Introduces the nature, etiology and extent of juvenile crime; functions and jurisdictions of juvenile agencies; juvenile processing, detention and case disposition; and contemporary issues in juvenile justice. (3 contact hours)

IAI Code: CRJ914

#### **CRJ-110 Introduction to Homeland Security (3)**

This course provides an overview of homeland security as a major contemporary issue in the public safety fields, and introduces the major themes and issues in homeland security. Students will examine the roles of the emergency management system, including public health and private sector participants. The course will review current legislation, civil liberties, intelligence gathering and counter terrorism initiatives, as well as provide a historical perspective and describe risk assessment and prevention techniques. (3 contact hours)

#### **CRJ-111 Homeland Security Incident Command (3)**

This course provides an overview of incident command and disaster response as a major contemporary issue in the public safety field for all first responders. Introduces many major themes and issues in incident command and disaster operations. Examines the roles of first responders, including police, fire, EMS and public health; along with private sector and community participants. Reviews current legislation, civil liberties, current best practices, and discusses local political concerns. Provides a historical perspective and describes risk assessment and mitigation techniques. (3 contact hours)

#### **CRJ-112 Disaster & Blood Borne Hazards (1)**

Provides an overview of those risks faced by first responders. It introduces many major themes and issues in first responder safety, mitigation and the prevention of

blood-borne and respiratory illnesses common at disaster scenes. It examines the roles of first responders, including police, fire, EMS and public health; along with the private sector and community participants. Reviews current legislation, civil liberties, best practices, and discusses local political concerns. Provides a historical perspective and describes risk assessment and mitigation techniques in an evolving incident. (1 contact hour)

### **CRJ-113 Emergency Preparedness & Response (3)**

This course focuses on the philosophical and theoretical underpinnings of the emergency preparedness profession and the principles that define effective practice. The starting points are current definitions of emergency preparedness, the mission and vision of the profession, and "The Principles of Emergency Preparedness" developed by the Emergency Management Roundtable in 2007. (3 contact hours)

### **CRJ-114 Public Safety Leadership (3)**

This course explores the principles that promote effective emergency preparedness operations, management, planning and communication. The main objective of this course is to establish the importance of strategic planning and management across various fields in emergency preparedness utilizing contemporary best practices. It will highlight challenges in communication between coordinating agencies before, during, and after a disaster, in addition to the challenges faced in inter-personal communication. This course will elaborate on critical thinking, problem solving, group thinking, and leadership in stressful environments. (3 contact hours)

### **CRJ-201 Police in American Society (3)**

Examines American law enforcement. Introduces the nature, scope and history of law enforcement; the police function; police-citizen relations; civil rights and civil liability; ethics in policing; organizational, political and social influences; and a range of policing issues. (3 contact hours)

### **CRJ-202 Investigation & Criminal Evidence (3)**

Looks at the police investigative process. Emphasizes preliminary and follow-up investigations; collection and preservation of physical evidence at the crime scene; methods used in the scientific interpretation of evidence; and preparation of criminal cases for trial. (3 contact hours)

### **CRJ-206 Substantive Criminal Law (3)**

Examines the theory and practice of substantive criminal law. Introduces the definition and classification of crimes, legal principles of criminal conduct, legal elements required for proof of crime, punishment, defenses, and mitigating circumstances. Emphasizes criminal offenses in Illinois. (3 contact hours)

### **CRJ-207 Procedural Criminal Law (3)**

Covers the theory and practice of procedural criminal law. Introduces the law of arrest, search and seizure; confessions; suspect identification; and electronic surveillance. Emphasizes the criminal law in Illinois and updated decided court cases. (3 contact hours)

### **CRJ-210 Special Topics in Criminal Justice (1)**

Students work with instructor individually or in small groups to develop special projects designed to focus on specific criminal justice or related topics. This course may be taken four times for credit. (1 contact hour)

### **CRJ-219 Contemporary Issues: Criminal Justice (2)**

Intended primarily for students interested in criminal justice issues, the course examines basic policy problems: legislation, professionalism, education, training, literature and research, procedures, administration, social problems. This course may be taken four times for credit. (2 contact hours)

### **CRJ-233 Internship (3)**

Planned and supervised career field experience relating to the student's degree program. Students will intern in criminal justice agencies or related public service agencies. Fee is required. (15 contact hours)

Prerequisite: CRJ-101 and 6 credit hours from CRJ, 2.0 or better cumulative grade point average, and consent of instructor or internship coordinator Corequisite: CRJ-237

### **CRJ-237 Seminar (1)**

Discusses internship activities and issues. (1 contact hour)

Prerequisite: CRJ-101 and 6 credit hours from CRJ, 2.0 or better cumulative grade point average, and consent of instructor or internship coordinator Corequisite: CRJ-233

## **CSC—Computer Science**

### **CSC-140 Introduction to Computer Science (3)**

Designed as an introduction to problem solving, structured logic and programming, this course covers the concepts of an algorithm and its expression as a program. C++ or another high-level language will be used to introduce the topics of top-down design, modularization and structured programming. Programming problems will be chosen from a variety of subject areas. Fee is required. (4 contact hours)

Prerequisite: 3 years of high school math, including precalculus or advanced algebra, and appropriate placement test score or MTH-098, or consent of instructor IAI Code: CS911

### **CSC-240 Advanced Computer Science (3)**

This course is designed as an extension of CSC-140, providing greater in-depth experience in modular structured

programming solutions to problems. Topics include record I/O; file processing; advanced array manipulations; searching and sorting algorithms; algorithm efficiency; recursion; OOP methodology; using and creating classes; interfaces; overloading; pointer data types; and an introduction to data structures: linked lists, stacks, queues and trees. Good programming documentation and proper problem analysis is expected throughout the course. Fee is required. (4 contact hours)

Prerequisite: CSC-140 or consent of instructor IAI Code: CS912

#### **CSC-280 Data Structures with Applications (4)**

An introduction to elementary data structures (lists, stacks, queues, trees, graphs, heaps, and hash tables) and their implementation using an object-oriented programming language. The course also covers abstraction of data, basic algorithm analysis, recursion, sorting/searching/traversal algorithms, optimization, and compression techniques. Fee is required. (5 contact hours)

Prerequisite: CSC-240 and MIS-176

#### **EAS—Earth Science**

##### **EAS-120 Introduction to Earth Science (4)**

An introductory course to acquaint students with the physical environment. Topics include an examination of the earth's composition; plate tectonics, structure and land forms; the atmosphere and major elements and controls of weather in their relationship to climatic characteristics and distributions; the physical characteristics of ocean water, movements and the ocean floor; and the characteristics of the solar system and outer space. This course is particularly suited for students not majoring in the sciences. This course includes a one-hour laboratory component. Fee is required. (6 contact hours)

IAI Code: P1 905L

##### **EAS-125 Introduction to Weather and Climate (4)**

This course is an elementary treatment of the processes that produce our weather and climate. Covers the elements of weather and climate (temperature, moisture, pressure, and winds); causes for day-to-day weather changes; and the nature of violent storms such as tornadoes and hurricanes. Climatic regions will be investigated in terms of physical characteristics, locations and associated human activity. This course includes a one-hour laboratory component. Fee is required. (6 contact hours)

IAI Code: P1 905L

##### **EAS-130 Severe and Hazardous Weather (4)**

This course examines hazardous weather patterns and severe weather phenomena while emphasizing the fundamental concepts and processes in meteorology. The

internal structure and atmospheric dynamics of extra-tropical and tropical cyclones will be examined as well as smaller scale atmospheric events such as thunderstorm propagation along squall lines, microbursts, and development of tornadoes. There will be special focus on the environmental, economic, and societal impacts of long-term weather patterns such as heat waves and drought. Several of the topics will be investigated by scrutinizing case studies of disastrous weather events that have occurred throughout history. This course includes a one-hour laboratory component. Fee is required. (5 contact hours)

IAI Code: P1 905L

#### **ECE—Early Childhood Educator**

##### **ECE-101 Introduction to Early Childhood (3)**

This course is designed as an overview of early childhood care and education, including the basic values, structure, organization, and programming in early childhood. Examination of the student's personal qualities in relationship to expectations of the field is addressed throughout the course. A field experience component of 15 contact hours of direct observation in a variety of early childhood settings is required. (4 contact hours)

##### **ECE-105 Health, Safety and Nutrition (3)**

A comprehensive overview of ways to ensure a child's physical well-being. Basic and changing health, safety and nutrition needs of children are examined, as well as appropriate methods by which these needs can be met in group or home settings. (3 contact hours)

##### **ECE-107 Infant and Toddler Development (3)**

Studies patterns of growth, concepts, principles and theories of development for children from birth to toddlers. Examines needs of infants and toddlers in various childcare settings that are safe, developmentally and culturally appropriate. Skills will be developed to manage a safe environment indoors and outdoors while planning stimulating age appropriate activities that concentrate on all areas of development with particular attention to language development. Recognize atypical and typical development with infants and toddlers. Provide an understanding of good health and nutrition. Observe and document development and communicate findings, to inform programmatic decisions which will help a child develop a positive sense of self. Guide children with positive methods of discipline. Maintaining professionalism in practice with confidentiality and respect for families while continuing to develop one's own personal philosophy will be explored. Provide an engaging curriculum using senses for the child to explore and inquire. The development of curriculum that is driven by the needs of the individual, diverse child is examined. To maintain an understanding that the positive team relationship between parent, child, teachers, program and

interdisciplinary agencies are in place for infants and toddlers. Summarize state guidelines that apply to infant/toddler care. (9 contact hours)

#### **ECE-109 Child, Family and Community (3)**

This course focuses on the child in the context of family, school and community. Students will conduct a service learning project, advocate for students and families, discuss and analyze the contemporary American family, study other cultures, lifestyle diversity, communication issues, and the role of school and community within our changing society. (3 contact hours)

#### **ECE-201 Math, Science and Social Studies (3)**

Introduction to the theory and practice related to the curricular areas of math, science and social studies for young children. Emphasis will be placed on the development and evaluation of developmentally appropriate activities and instructional materials. An overview of a wide variety of experiences and methods for developing self-expression and creativity in the young child, including art, music, rhythm, and movement is included. (3 contact hours)

#### **ECE-202 Growth and Development/Young Child (3)**

This course is a foundation course in theory and principles of development, conception through age eight. Course includes an in-depth study of physical, social/emotional, cognitive, language, and aesthetic development. An examination and practical application of theory to include Piaget, Erikson, Vygotsky, Skinner, and others. An exploration of child development in context of gender, family, culture, and society. An emphasis on the implications for early childhood professional practice. A clinical component will be included. (3 contact hours)

Prerequisite: COM-101

#### **ECE-203 Administration of EC Programs (3)**

This course will prepare a candidate to become a director of a licensed center or a licensed home provider. The course will cover the Department of Children and Family Services' (DCFS) state regulations that apply to early childhood. Upon completion of 100 hours of early childhood (EC) experiences that have been embedded within the coursework in the EC program, a student will be able to apply for the Illinois Gateways Credential. An additional 300 hours will be required to earn this credential. A student can obtain these additional hours by completing an internship program ECE-237. (3 contact hours)

Prerequisite: 100 hours of observation hours in early childhood which is embedded within the early childhood program

#### **ECE-205 Curriculum-Early Childhood Programs (3)**

Overview of principles involved in planning, implementing and evaluating developmentally appropriate curriculum.

Includes lesson plan; emerging curriculum; scheduling; room arrangement; materials and equipment; individual, small-and-large group activities; short- and long-term goals; and a study of teacher's roles and responsibilities in curriculum development. (3 contact hours)

Prerequisite: ECE-101 and ECE-201 or consent of ECE coordinator

#### **ECE-211 Special Topics in Education (1-3)**

Students will work with the program coordinator to create supervised internship opportunities in early childhood settings. This course is intended for students pursuing the Infant/Toddler and Director-Level certificates. Infant/Toddler and Director-Level students will complete supervised clinical hours totaling 50-300 depending on the credentialing needed. (1-3 contact hours)

#### **ECE-233 ECE Practicum (2)**

This course provides students with a hands-on clinical field experience in a qualified early childhood setting (birth through age 8). This experience involves observation of and interaction with practitioners, and it is evaluated and under the guidance of the classroom teacher/supervisor and the college instructor. Students will complete a minimum of 160 documented contact hours including instructional planning, classroom management, technology usage, diversity considerations, and different methodologies to be eligible for the State of Illinois ECE Level 4 Credential. Fee is required. (10 contact hours)

Prerequisite: COM-101, ECE-101, ECE-105, ECE-109, ECE-201, ECE-202, ECE-205, EDU-103, EDU-104, EDU-105, EDU-110, and EDU-111 Corequisite: ECE-237

#### **ECE-237 ECE Practicum Seminar (1)**

This course serves as a capstone educational experience in which students will dialogue, research and reflect on professional practice within varied early childhood settings (birth through age 8). Emphasis is placed on reflective practices and understanding the field of early childhood. (1 contact hour)

Prerequisite: COM-101, ECE-101, ECE-105, ECE-109, ECE-201, ECE-202, ECE-205, EDU-103, EDU-104, EDU-105, EDU-110, and EDU-111 Corequisite: ECE-233

#### **ECE-243 Infant/Toddler Practicum (2)**

This course provides students with a hands-on clinical field experience working in a qualified early childhood setting with infants and toddlers (birth through age 3). Emphasis is placed on the completion of teaching learning skills, reflective practices and understanding of the field of early childhood for children from birth to three years old. This experience is evaluated and under the guidance of the classroom teacher/supervisor and the college instructor. Students will complete a minimum of 160 documented contact hours including instructional planning, classroom

management, technology usage, diversity considerations, and different methodologies to be eligible for the State of Illinois Infant/Toddler Level 4 Credential. Fee is required. (10 contact hours)

Prerequisite: COM-101, ECE-101, ECE-105, ECE-107, ECE-109, ECE-201, ECE-202, ECE-205, EDU-103, EDU-104, EDU-110, and EDU-111 Corequisite: ECE-247

#### **ECE-247 Infant/Toddler Practicum Seminar (1)**

This course serves as a capstone educational experience in which students will dialogue, research and reflect on professional practice within varied early childhood settings (birth through age 3). Emphasis is placed on reflective practices and understanding the field of early childhood. (1 contact hour)

Prerequisite: COM-101, ECE-101, ECE-105, ECE-107, ECE-109, ECE-201, ECE-202, ECE-205, EDU-103, EDU-104, EDU-110, and EDU-111 Corequisite: ECE-243

#### **ECE-253 ECE Director Practicum (3)**

This course provides students with an extensive clinical field experience in early childhood administration in a qualified early childhood setting working with a child care center director, staff, young children, and families. Emphasis is placed on the real-world application of principles, practices, and theories of early childhood education and care (birth through age 8). This experience is evaluated and under the guidance of the classroom teacher/supervisor and the college instructor. Students will complete a minimum of 300 documented contact hours to be eligible for the State of Illinois Director Level 1 Credential. Fee is required. (20 contact hours)

Prerequisite: COM-101, ECE-101, ECE-105, ECE-107 or EDU 105, ECE-109, ECE-201, ECE-202, ECE-205, EDU-103, EDU-104, EDU-110, and EDU-111 Corequisite: ECE-257

#### **ECE-257 ECE Director Practicum Seminar (1)**

This course serves as a capstone educational experience in which students will dialogue, research, and reflect on professional practice and administrative responsibilities associated with varied early childhood settings (birth through age 8). Discussion and reflections will emphasize the real-world application of principles, practices, and theories of early childhood education and care. (1 contact hour)

Prerequisite: COM-101, ECE-101, ECE-105, ECE-107 or EDU-105, ECE-109, ECE-201, ECE-202, ECE-205, EDU-103, EDU-104, EDU-110, and EDU-111 Corequisite: ECE-253

## **ECO—Economics**

#### **ECO-100 Consumer Economics (3)**

Personal financial management is explored, including financial planning, budgeting, banking, borrowing, credit, taxes, home ownership, renting, life insurance, health and income insurance, estate planning, and consumer protection. (3 contact hours)

#### **ECO-101 Principles of Macro-Economics (3)**

Examines basic economic concepts, including unemployment, inflation, production, and fiscal and monetary policy. Completion of two years of high school math including algebra, or MTH-098, is strongly recommended. (3 contact hours)

IAI Code: S3 901

#### **ECO-102 Principles of Micro-Economics (3)**

Studies supply and demand analysis, basic concepts of cost and revenue under various market conditions, income distribution and international trade. Completion of two years of high school math including algebra, or MTH-098, is strongly recommended. (3 contact hours)

IAI Code: S3 902

#### **ECO-103 International Economics (3)**

This course includes a brief historical account of United States international trade policies and their continued influence on the economy. The course will examine trading among sensitive model nations such as Middle Eastern, Asian, and European markets and the challenges they face concerning population growth, utilization of resources, international money markets, and sustainable global economic growth. The course will cover the roles of the World Bank and the International Monetary Fund, and their influence on the global economy. Completion of two years of high school math including algebra, or MTH-120, is strongly recommended. (3 contact hours)

#### **ECO-250 Comparative Economics (3)**

Develop an appreciation and understanding for the philosophies and precepts on which world economic systems are based. Classical economic philosophies are reviewed, and elements of national economics are studied. Discuss various methods and levels of analysis for application purposes. Special focus is given to central European nations. This course is for students who will study at Salzburg College, Austria, and who meet certain academic requirements. (3 contact hours)

## **EDU—Education**

#### **EDU-100 Introduction to Education (3)**

Provides an introduction to teaching as a profession in the American education system. Offers a variety of

perspectives on education including historical, philosophical social, legal, and ethical issues in a diverse society. Includes organizational structure and school governance. A clinical component is required. Fee is required. (3 contact hours)

Prerequisite: COM-101

#### **EDU-102 Intro for Paraprofessional Educator (3)**

This course is designed for students who are considering a career in the education field. This course is designed to cover professionalism, teaching methods and strategies, lesson planning, co-operative learning, assessment techniques and basic school practices and procedures. (3 contact hours)

#### **EDU-103 Observation/Clinical Experience (3)**

Documented clinical experience(s) based on community collaborations involving observation of and interaction with students and practitioners at work, according to specified guidelines, within the appropriate subject matter and age category. The experience, comprising a minimum of 40 hours, is planned, guided, and evaluated by a supervisor and can occur in a variety of educational settings, including those with diverse populations. Fee is required. (7.5 contact hours)

#### **EDU-104 Intro. to the Foundations of Reading (3)**

Introduction to theory and practice in teaching reading and related language arts areas. Includes information on the basic components of reading instruction and language arts instruction, and the importance of literacy learning. Includes an introduction to the Illinois learning standards in the areas of reading and language arts. (3 contact hours)

#### **EDU-105 Classroom Management (3)**

This course studies the theories of discipline and the implementation of behavior analysis in order to maintain an effective classroom environment. Strategies and their application, which address components of diverse behavioral, cultural and learning theories, are examined. Recognized behavioral interventions to ensure appropriate socialization and learning are researched and utilized. Individual and school-wide discipline behavior theories and models are analyzed and applied. (3 contact hours)

#### **EDU-106 Language Diversity in the Classroom (3)**

This course is designed to introduce students to an understanding of linguistic diversity and services for culturally diverse populations. The course will cover normal language development from birth through school age, and how children of all cultures progress through language development stages at different rates. This course also will cover the effects of cultural and linguistic diversity on language development. (3 contact hours)

#### **EDU-108 Foundations of Bilingual Education (3)**

This course is designed to introduce students to historical, philosophical, socioeconomic, and educational issues that have led to the formation of ESL and bilingual education policies, programs, and services for culturally diverse populations. Theories of language learning are included. (3 contact hours)

#### **EDU-110 Technology for Educators (3)**

This course introduces educators to the knowledge and skills required to demonstrate their proficiency in the current technology standards. This course focuses on both knowledge and performance, and includes hands-on technology activities. (3 contact hours)

Prerequisite: Recommended IMS-100 or equivalent computer skills

#### **EDU-111 Intro to the Exceptional Child (3)**

This course is a survey that presents the historical, philosophical, and legal foundations of special education. An in-depth overview of the characteristics of individuals with disabilities, methods of instruction, as well as programs that serve individuals with special needs from birth to adulthood will be covered. A clinical component is required. Fee is required. (3 contact hours)

Prerequisite: COM-101

#### **EDU-205 Literature for Children/Young Adults (3)**

Survey of the genre of literature for children through young adults, analyzing the social, cultural, and intellectual implications, instruction methodology, including critical thinking assessment, criteria for selection and utilization of literary works-based language development, learning opportunities, and curricular resources in schools and the community. (NOTE: Only 3 credit hours can be earned for either EDU-205 or LIT-205. Duplicate credit in both courses will not be awarded.) (3 contact hours)

Prerequisite: COM-101

#### **EDU-233 Paraprofessional Educator Internship (3)**

An extensive clinical field experience based in community collaboration involving a working observation of and interaction with practitioners in the field. This experience is evaluated and under the guidance of the classroom teacher/supervisor and college instructor. This course comprises a minimum of 225 contact hours and includes instructional planning, classroom management, use of technology, diversity considerations, use of varied instructional methodologies, collaboration assessments, and reflection. Fee is required. (15 contact hours)

Prerequisite: EDU-100, EDU-102, EDU-103 and consent of instructor  
Corequisite: Registration in EDU-237

**EDU-237 Paraprofessional Educator Seminar (1)**

Students demonstrate the knowledge, performance and disposition for teaching. Emphasis is on the completion of teaching-learning skills, reflective practices and an understanding of the field of education, demonstration by portfolio and authentic assessments. (1 contact hour)

Prerequisite: EDU-100, EDU-102, EDU-103 and consent of instructor  
Corequisite: Registration in EDU-233

**EDU-250 Comparative Education (3)**

This course compares the educational system (preschool through higher education) in European states with special consideration of Austria, England, Germany, Ireland, France, and Italy. Current trends and reforms are considered. This course is for students who will study at Salzburg College, Austria, and who meet certain academic requirements. (3 contact hours)

**EGN—Engineering****EGN-150 Engineering Graphics (3)**

An introduction to the principles and practices of engineering graphics and conceptual design. Topics include sketching, multiview orthographic projection, sections, auxiliary views, dimensioning, pictorials and working drawings. It incorporates the use of 2D CAD and 3D modeling in the solution, presentation and communication of realistic design projects. Functional analysis of existing products, designing with standard components and additive manufacturing are also covered. Fee is required. (5 contact hours)

IAI Code: EGR941

**EGN-201 Engineering Statics (3)**

Analyze one-, two- and three-dimensional force systems in equilibrium. Includes use of vector calculus. Applications include trusses and frames. Includes discussion of friction, centroids and virtual work. (3 contact hours)

Prerequisite: PHY-203 Corequisite: Registration or credit in MTH-152 or consent of instructor  
IAI Code: EGR942

**EGN-202 Engineering Dynamics (3)**

Kinematics and dynamics of particles and rigid bodies using the calculus of vectors are studied. Nonrectangular coordinates and Newton's laws of motion, work, energy, and momentum are applied to a variety of problems. Introduces Lagrange's equations and the Hamiltonian Principle. (3 contact hours)

Prerequisite: PHY-203 Corequisite: Registration or credit in MTH-152 or consent of instructor  
IAI Code: EGR943

**ELT—Electronics****ELT-101 Electricity and Electronics (3)**

This course provides a practical approach to DC and AC electricity and electronics. The course provides an introduction to electricity and magnetism; circuit elements; and series, parallel and simple complex circuits. The course will include the characteristics and operation of capacitors and capacitance, inductors and inductance, and reactive circuits. Applications of resonance and transformers also will be introduced. The course will provide hands-on exercises and computer simulation in the use of test equipment and circuit troubleshooting. Fee is required. (4 contact hours)

**ELT-102 Digital Logic/Solid State Devices (3)**

This course provides a practical approach to the study of digital and integrated devices. The course will include the study of logic gates, flip-flops, latches, counters, encoders/decoders, multiplexers, arithmetic circuits, oscillators, timers, analog-to-digital circuits, solid-state memory, and operational amplifiers. In addition, study solid state circuits and devices. The course will include the study of diodes, transistors, FETS, thyristors, and optoelectronic devices. Examination of common circuits will include power supplies, amplifiers, solid-state switches, and regulators. Fee is required. (4 contact hours)

Prerequisite: ELT-101

**ELT-103 Orientation to IST Careers (1)**

This is a career orientation course aimed at helping students choose their Integrated Systems Technology field. It will enable students to navigate through the courses, certificates, and internships, in order to successfully complete their program. Students will gain the knowledge and expertise to enter the workplace successfully and steer their career. (1 contact hour)

**ELT-112 Computers for Industry (1)**

This course provides a basic introduction to the computer hardware and software. The emphasis is on the software, with a basic introduction to DOS, Windows, Windows applications, and batch file programming. Fee is required. (2 contact hours)

**ELT-199 Special Topics (3)**

This course covers different industrial maintenance topics based on emerging industry trends and student needs. Students work with instructors individually or in small groups to develop special projects designed to support student growth. The topics covered in a particular semester course will be identified by section number in the college schedule of classes. A syllabus documenting the class description, specific topics, and student learning outcomes

will be available as each special topics section is added to the schedule. (4 contact hours)

### **ELT-201 Industrial Controls (3)**

Provides an in-depth study of electrical controls in an industrial environment. Topics include power distribution basics, motor control circuits, pilot devices, timers, counters, photoelectric and proximity switches. Examine AC motor operation and characteristics. Fee is required. (4 contact hours)

Prerequisite: ELT-101 or consent of instructor

### **ELT-202 Advanced Industrial Controls (3)**

Examines the application of digital circuits, trigger circuits, and thyristors in power and control circuits. Closed loop systems, PID, transducers, and motor controls also will be studied. An examination of control wiring and power distribution also will be examined. Fee is required. (4 contact hours)

Prerequisite: ELT-201

### **ELT-211 Introduction to PLCs (3)**

Introduction to programmable logic controllers. Explores the history of their evolution in industry; fundamental concepts and programming methods; RLL programming, counters, timers and shift registers; PC online programming and monitoring; and installation, troubleshooting and monitoring. Fee is required. (4 contact hours)

Prerequisite: ELT-101

### **ELT-222 Advanced PLCs (3)**

Examines the application of programmable logic controllers in the areas of advanced I/O, PLC network, and factory automation. Program design, documentation, testing, and troubleshooting are investigated. Fee is required. (4 contact hours)

Prerequisite: ELT-211

### **ELT-260 Internship (1-3)**

This course is a supervised occupational field experience in a student's area of study in electronics and/or process control and manufacturing industries. Duties should be of a technical nature, but provide broad work experience in the field of study. The internship assignment is planned by the student and internship program coordinator. Fee is required. (5 contact hours)

Prerequisite: 12 credit hours in ELT

## **EMS—Emergency Medical Services**

### **EMS-101 Emergency Medical Technician (8)**

This course provides instruction for students to the level of Emergency Medical Technician-Basic. The course emphasizes skills necessary to provide emergency medical

care at a basic life support level. Sixty hours of clinical experience is included in course requirements, including time assigned to emergency room, obstetrical, ambulance and dispatch units. Upon successful completion of EMS-101, students are eligible to challenge the Illinois Department of Public Health EMT-B State Examination. Fee is required. (11 contact hours)

Prerequisite: Valid CPR for healthcare providers card; completed history and physical form, including drug screen, tuberculosis testing and immunizations; completion of a criminal background check; evidence of personal health insurance; evidence of age 18 years or older. RDG 091 with a minimum grade of "C" or appropriate score on reading placement test and MTH 090 with a minimum grade of "C" or appropriate score on math placement test.

### **EMS-102 EMT-Paramedic I (9)**

Provides classroom training and clinical experience to enable students to become state-certified paramedics. Examines the role and responsibility of the paramedic in the health care delivery system, including an overview of human body systems, basic general pharmacology, medical terminology, patient assessment and examination, fluid therapy, and an in-depth study of the respiratory, cardiovascular, endocrine, gastrointestinal, renal, central nervous system, obstetrics, pediatrics and special population systems. Fee is required. (15 contact hours)

Prerequisite: Emergency Medical Technician - B Licensure

### **EMS-103 EMT-Paramedic II (8)**

This course is an in-depth study of the cardiovascular system, and the study of epidemiology, anatomy and physiology, pathophysiology, assessment and management of the following patients: gynecologic, obstetric, neonate, pediatric, infectious, endocrine, gastrointestinal, urological, neorological, and psychiatric patients. The management of substance abuse and toxic emergency patients are discussed. (14 contact hours)

Prerequisite: EMS-102 and Emergency Medical Technician B licensure

### **EMS-104 EMT-Paramedic III (8)**

This course covers the anatomy and physiology and management of the geriatric client, environmental and hematological emergencies, anaphylaxis, allergies, the challenged patients and chronic care patients. Examines the EMS considerations for violent situations and crime scenes and hazardous material situations. Also covers the pathophysiology and management of the musculoskeletal system and of trauma, including soft tissue injuries, burns, hemorrhage, and shock. Fee is required. (14 contact hours)

Prerequisite: EMS-102, EMS-103 and Emergency Medical Technician B licensure

**EMS-230 Special Topics in EMS (5)**

This course will provide students with an efficient mechanism for receiving education on current issues and topics impacting the emergency medical field. Students will work with an instructor individually or in small groups to develop special projects designed to focus on specific emergency medical issues, emergency response strategies, and regulatory and standard of practice updates. This course may be taken three times for credit as long as different topics are selected. (5 contact hours)

Prerequisite: Current EMT-P licensure, a letter of good standing from an accredited EMS system, and permission of program coordinator

**EMS-233 EMT-Paramedic-Internship (5)**

The student, while under the direct supervision of a certified paramedic, will accumulate a minimum of 248 hours of actual ambulance service (including a minimum of 50 calls, 25 of which must be Advanced Life Support responses). Included in the above calls, the student must serve as team leader in at least 50 calls. Fee is required. (16.5 contact hours)

Prerequisite: EMS-102 and completion of Cardiac Mod in EMS-103 Corequisite: Registration in EMS-103 and EMS-104

**EMS-237 EMT-Paramedic-Seminar (5)**

These semiweekly seminars allow the paramedic intern to present case studies to the EMS instructor and classmates as related to the Region VII Standard Medical Orders. The student also will be required to successfully complete ACLS, PHTLS, and PALS courses in order to graduate and complete EMS-237. Upon successful completion, the student is eligible to take the State of Illinois Certification Examination for Paramedics. (16.5 contact hours)

Prerequisite: EMS-102 and completion of Cardiac Mod in EMS 103 Corequisite: Registration in EMS-103, EMS-104 and EMS-233

**FIS—Fire Science Technology****FIS-101 Principles of Fire Science (3)**

The history and development of public fire protection services of federal, state and local governments are covered. Explores the relationship of departmental functions to other governmental agencies and industrial/commercial organizations. Characteristics and behavior of fire, primary extinguishing agents and municipal fire defense are included. (3 contact hours)

**FIS-104 Fire Protection Systems (3)**

Studies basic built-in fire detection, alarm and extinguishing systems. Examines devices and systems installed in buildings to protect life and property, and to support the fire

department through early detection and control. (3 contact hours)

**FIS-105 Industrial Fire Protection (3)**

Studies recommended practices for protection of industrial properties and processes from fire, explosion and damage peculiar to certain types of public and private industry. Includes organization and training of plant fire brigades. (3 contact hours)

**FIS-106 Fire Suppression Apparatus & Equip (3)**

Basic principles of construction and use of fire apparatus and related equipment are included. Apparatus operation and maintenance of pumps, pumper procedures, tests, aerial ladders, and aerial platforms are covered. Elementary fireground hydraulic calculations are studied. (3 contact hours)

**FIS-110 Hazardous Materials Awareness (1)**

Designed to give the student the knowledge necessary to implement a planned response to a hazardous materials circumstance. Emphasizes surveying the incident scene and collecting hazardous materials information. (1 contact hour)

**FIS-111 Hazardous Materials Incident (1)**

This course offers the individual skills necessary to direct and coordinate all aspects of a hazardous materials incident. Skills include the knowledge and ability to implement the incident management system, importance of the decontamination systems, and knowledge of the overall incident operations with emphasis on hazards when employees are working in chemical protective clothing at an incident. (1 contact hour)

Prerequisite: Office of the State Fire Marshal Firefighter II Certification

**FIS-112 Building Construct. for Fire Safety (3)**

An in-depth analysis of the various classifications of building construction, types of construction materials, and structural design. Includes fire resistance ratings, fire detection and suppression systems, and life safety considerations. Introduces building and fire codes and laws. (3 contact hours)

**FIS-113 Technical Rescue Awareness (1)**

This course provides instruction in the identification of situations requiring a technical rescue. Several methods of technical rescue will be discussed, including structural collapse, confined space, vehicle and machinery and water. Safety measures required at each type of rescue will be emphasized. (1 contact hour)

Prerequisite: Permission of program coordinator

**FIS-114 Fire Investigation (3)**

Develops proper techniques and procedures for investigating fires, and determining the point of origin and cause of a fire. Discusses preservation of evidence, burn patterns, fire behavior, and incendiaryism. (3 contact hours)

**FIS-116 Fire Department Special Services (1)**

This course provides instruction and information for two major topics in fire department special services: hazardous materials and technical rescue. Emphasis will be given to surveying hazardous materials incident scenes and collecting hazardous materials information. Emphasis will also be given to the identification of situations requiring a technical rescue and studying several methods of technical rescue, including structural collapse, confined space, vehicle, machinery, and water. The objectives for this course were developed based on training objectives prescribed by the Office of the State Fire Marshal (OSFM), codes and standards established by the National Fire Protection Association (NFPA), North American Emergency Response Guidebook, and Occupational Safety and Health Administration (OSHA). (3 contact hours)

**FIS-117 Incident Safety Officer (3)**

This course introduces the student to the roles and responsibilities of an incident safety officer. The student will learn about firefighter line-of-duty deaths and ways in which firefighter deaths can be avoided. Risk versus benefits will be discussed. Emergency incident operations and responses to and from the incidents will be explored. Training operations will be covered with an emphasis on the fire department's liability to perform training that is safe and comprehensive. (3 contact hours)

Prerequisite: Approval of the program coordinator

**FIS-118 Health and Safety Officer (3)**

This course introduces the student to the roles and responsibilities of the health and safety officer. The student will learn about firefighter wellness and fitness programs. The development of an overall safety program will be discussed. An infectious disease prevention program will be covered. Emphasis will be placed on legal issues and health and safety standards and regulations. (3 contact hours)

Prerequisite: Approval of the program coordinator

**FIS-119 Water Rescue Operations (2)**

Students will be instructed on the techniques and procedures for responding to water-related emergencies. Topics include terminology and types of bodies of water. Personal protective equipment and emergency actions are explored. Rescues are practiced using simulated victims. Substantial time is spent in the water. (3 contact hours)

Prerequisite: Office of the State Fire Marshal Firefighter II Certification or approval of program coordinator

**FIS-120 Ice Rescue Technician (1)**

Students will be instructed on the techniques and procedures for responding to ice-related emergencies. Topics include terminology and types of ice that are created. Personal protective equipment and emergency actions are explored. Rescues are practiced using simulated victims. Substantial time is spent on the ice and in the water. (1.5 contact hours)

Prerequisite: FIS-119

**FIS-140 Company Fire Officer (6)**

This course presents information about the policies, procedures, applicable laws and rules involved in being a fire officer in the modern fire service. This course is meant for firefighters who wish to become company-level fire officers. The National Fire Protection Association Standards, State Fire Marshal standards, and generally accepted principles will be discussed. Instruction will cover company level fire inspections, company-level fire suppression tactics, basic leadership skills, labor-management concerns, and conflict resolution. (6 contact hours)

Prerequisite: Approval of the Fire Science Coordinator  
Corequisite: FIS-140

**FIS-141 Company Fire Officer Seminar (6)**

Students will research and investigate how their fire departments meet the policies, procedures, applicable laws that govern them. Students will investigate and report on company level fire inspections, company-level fire suppression tactics, basic leadership skills, labor-management concerns, and conflict resolution within their fire departments. A lengthy evaluation document must be handed in at the conclusion of the course. (12 contact hours)

Prerequisite: Approval of the Fire Science Coordinator  
Corequisite: FIS-140

**FIS-150 Advanced Fire Officer (6)**

This course presents information about the policies, procedures, applicable laws and rules that affect an advanced fire officer in the modern fire service. This course is meant for fire officers who wish to become advanced fire officers. National Fire Protection Association standards, State Fire Marshal standards, and generally accepted principles will be discussed. Instruction will cover multi-company fire suppression tactics, budgets, developing crew dynamics, networking and ethical concerns. (6 contact hours)

Prerequisite: Approval of the Fire Service Coordinator  
Corequisite: FIS-151

**FIS-151 Advanced Fire Officer Seminar (6)**

As a continuation of FIS-141 students will further research and investigate how their fire departments meet the policies, procedures, and applicable laws that govern the service they provide. Students will investigate and report on budgets and finance, multi-company fire suppression tactics, crew dynamics, and ethical concerns within their fire departments. A lengthy evaluation document must be handed in at the conclusion of the course. (12 contact hours)

Prerequisite: Approval of the Fire Service Coordinator  
Corequisite: FIS-150

**FIS-201 Fire Service Instructor I (3)**

This course introduces fire service course delivery skills. The course meets the guidelines of the Illinois Office of State Fire Marshal at Instructor I level. It qualifies personnel to conduct training and educational courses for fire service personnel. (3 contact hours)

Prerequisite: Approval of the program coordinator

**FIS-202 Fire Service Instructor II (3)**

A sequel to Fire Service Instructor I. Emphasis is on performance objectives, lesson plan development, instructional materials development, teaching and the learning process, teaching tactics, and related concepts required to meet certification as a Fire Service Instructor II. (3 contact hours)

Prerequisite: FIS-201

**FIS-203 Fire Apparatus Engineer (3)**

This course studies properties of pumps. fluids, force, pressure, and flow velocities as related to the development of firefighting water streams. Emphasis is placed on the generation of fire streams in relationship to pumping capabilities, friction loss and water supply. Students will be able to operate various fire apparatus pumps and troubleshoot problems. (3 contact hours)

Prerequisite: Office of the State Fire Marshal Firefighter II Certification

**FIS-204 Hazardous Materials Operations (3)**

This course studies hazardous materials emergencies. Topics include classification of hazardous materials, identifying hazardous materials, locating hazardous materials, hazards linked to different hazardous materials, and various fire department strategies followed to minimize the effects of hazardous materials incidents. (3 contact hours)

Prerequisite: Permission of program coordinator

**FIS-206 Vehicle Rescue Operations (3)**

This course is designed to develop student skills in the use and care of extrication equipment needed to perform in

rescue, extrication and hazard control functions. Upon successful completion of this course, the student is qualified for state certification as an emergency rescue technician. Fee is required. (4 contact hours)

Prerequisite: FIS-113

**FIS-212 Fire Inspector I (3)**

This course introduces the student to the roles and responsibilities of the Fire Prevention Officer. Significant events in the history of fire prevention are discussed. Regulations established by regulatory agencies such as the National Fire Protection Agency and state statutes are explored within the context of administrative procedures associated with fire prevention. (3 contact hours)

Prerequisite: Office of the State Fire Marshal Firefighter II Certification

**FIS-213 Public Fire and Life Safety Educator (3)**

This course introduces the student to the roles and responsibilities associated with the Public Fire and Life Safety Educator: flammable liquids, compressed gases and explosives, electricity, combustion engines, and laboratories. Regulations for work with hazards as established by agencies such as the National Fire Protection Agency and state statutes are explored. (3 contact hours)

**FIS-214 Fire Prevention Officer I (Module C) (3)**

This course prepares the student to design and deliver fire prevention programs to a variety of audiences, including children, senior citizens and other civic groups. Resources available for program development will be explored. Mechanisms of fire prevention program evaluation also are surveyed. (3 contact hours)

Prerequisite: FIS-212 and FIS-213

**FIS-215 Fire Service Academy I (3)**

This course provides an introduction to the Fire Service Academy and prepares students for courses II through V in the Fire Academy series. The course will cover the following areas: an introduction to the various careers related to the Fire Service, the history and development of public fire protection services, and the relationship of departmental functions to other governmental agencies. The course will provide an overview of the various skills and knowledge needed to function as a firefighter in the Fire Service. Objectives for this course were developed based on training objectives prescribed by the Office of the State Fire Marshal (OSFM), and the codes and standards established by the National Fire Protection Association (NFPA) and the Occupational Safety and Health Administration (OSHA). (4 contact hours)

Prerequisite: Consent of instructor

**FIS-216 Fire Service Academy II (3)**

This course studies basic built-in fire detection, alarm and extinguishing, including the examination of devices and systems installed in buildings to protect life and property, and to support the fire department through early detection and control. Students will learn to operate alarm panels, sprinkler risers and pull stations. The objectives for this course were developed based on training objectives prescribed by the Office of the State Fire Marshal (OSFM) and codes and standards established by the National Fire Protection Association (NFPA) and Occupational Safety and Health Administration (OSHA). (5 contact hours)

Prerequisite: Consent of instructor

**FIS-217 Fire Service Academy III (3)**

This course provides a study of the basic principles of construction and use of fire apparatus and related equipment. Apparatus operation and maintenance of pumps, pumper procedure and tests, aerial ladders and aerial platforms and elementary fire ground hydraulic calculations are covered. Students will understand and relate the differences between an engine company, truck company and squad company. The objectives for this course have been developed based on training objectives prescribed by the Office of the State Fire Marshal (OSFM), and codes and standards established by the National Fire Protection Association (NFPA) and Occupational Safety and Health Administration (OSHA). (4 contact hours)

Prerequisite: Consent of instructor

**FIS-218 Fire Service Academy IV (3)**

This course provides an in-depth analysis of the various classifications of building construction, types of construction materials, and structural design. Students will discuss how the new energy-efficient construction accelerates fire growth and raises backdraft potential. Fire resistance ratings, fire detection and suppression systems, and life safety considerations will be discussed. Building fire codes and laws will be introduced. The objectives for this course are developed based on training objectives prescribed by the Office of the State Fire Marshal (OSFM) and codes and standards established by the National Fire Protection Association (NFPA) and Occupational Safety and Health Administration (OSHA). (4 contact hours)

Prerequisite: Consent of instructor

**FIS-219 Fire Service Academy V (3)**

This course provides an in-depth analysis of the various classifications of building construction, types of construction materials, and structural design. Students will discuss how the new energy-efficient construction accelerates fire growth and raises backdraft potential. Fire resistance ratings, fire detection and suppression systems, and life safety considerations will be discussed. Building fire codes and laws will be introduced. The objectives for this course

are developed based on training objectives prescribed by the Office of the State Fire Marshal (OSFM) and codes and standards established by the National Fire Protection Association (NFPA) and Occupational Safety and Health Administration (OSHA). (4 contact hours)

Prerequisite: Consent of Instructor

**FIS-220 Fire Service Seminar (1)**

This course introduces the student to the culture of the fire service. The student will learn how rank, seniority and tradition help to define the role of a firefighter. This course will cover firehouse humor and how firefighters deal with tragedy and crisis. Traditions and history of firefighting will be explored. Chain of command, delegation, and span of control will be discussed in relationship to a new firefighter. (1 contact hour)

Prerequisite: FIS-215 with a minimum grade of "C" and permission of the Fire Service program coordinator

Corequisite: FIS-221

**FIS-221 Fire Service Internship (2)**

This course introduces the student to the roles and responsibilities of a firefighter. Topics will include communications and fire extinguishers. Regulations established by regulatory agencies such as the National Fire Protection Agency and state statutes are explored within the context of administrative procedures associated with fire suppression. Students will be affiliated with and members of a fire department. Fee is required. (9 contact hours)

Prerequisite: FIS-215 with a minimum grade of "C" and permission of the Fire Service program coordinator

Corequisite: FIS-220

**FIS-222 Advanced Technician Firefighter (2)**

This course is developed to enhance the skills of entry level firefighters. This course meets the requirements of the Office of the State Fire Marshal for certification as an Advanced Technician Firefighter. Hands-on skills will be a required component of this course. (3 contact hours)

Prerequisite: FIS-219 or consent of coordinator

**FIS-223 Hazardous Materials Technician A (2)**

This course is intended to prepare the student to conduct offensive procedures for controlling a hazardous materials incident. This course covers identification of the types of containers that may carry hazardous materials, terms and definitions related to hazardous materials, donning and doffing hazardous materials personal protective equipment, using resources to identify and understand hazardous materials, and mitigating a mock hazardous materials incident. (3 contact hours)

Prerequisite: FIS-204 or consent of coordinator

**FIS-224 Hazardous Materials Technician B (2)**

This course is intended to prepare the student to conduct offensive procedures for controlling a hazardous materials incident. This course covers pipeline, barges and highway cargo emergencies. Medical evaluation needs and annual medical clearance is discussed. The need for emergency decontamination and rapid intervention teams is exposed. Terminating a hazardous materials incident and describing the lessons learned also are covered. (3 contact hours)

**FIS-225 Blue Card Incident Command (4)**

This course is intended to prepare the student to function as an incident commander for many different types of incidents. The course covers initial situation assessment, determining the initial action plan, transferring command, changing tactics, and how to handle long-term incidents. The course will include numerous computer-based simulations and communications-based exercises. (5 contact hours)

Prerequisite: FIS-219 or consent of coordinator

**FIS-226 NIMS: Basic (3)**

This course is designed to prepare emergency response personnel to manage incidents effectively by using the functional components of the National Incident Management System (NIMS) developed by Federal Emergency Management Agency (FEMA). The course integrates classroom activities that will promote teamwork and incorporate the various components of multiple command functions. The focus of the course is to develop the skills necessary to operate as a team in various incident management positions. This class also will promote an understanding of the various management positions through in-class simulations and in-depth coverage of the numerous forms and worksheets required by the NIMS model. This class meets the National Incident Management System requirements for certification at the 100, 200, 700, and 800 levels. (3 contact hours)

Prerequisite: FIS-219

**FIS-227 NIMS: Advanced (3)**

This course is designed to prepare emergency response personnel to manage large, complex incidents effectively by using the functional components of the Incident Command System. The course integrates many activities that will promote teamwork among various first responder agencies. The focus of the course is to enhance the skills necessary to operate as a team in various command and staff positions and to promote an understanding of team operations through applied learning modules using various simulations. This class meets the National Incident Management System (NIMS) requirements for certification at the 300 and 400 levels. (3 contact hours)

Prerequisite: FIS-219 and FIS-226 or consent of coordinator

**FIS-228 Rope Operations (2)**

This course is intended to prepare the student to operate at an incident involving low angle rope operations. The course covers identification of the types of rope that may be used, the various pieces of equipment commonly used for rope incidents, the terms and definitions related to rope related incidents, the types of knots used, how to tie the various knots, how to construct haul systems, and the necessary personal protective equipment used at a rope incident. The course includes a significant laboratory component to insure student mastery of hands-on skills required during low angle rope operations. (3 contact hours)

Prerequisite: FIS-116 or consent of coordinator

**FIS-230 Fire Investigation Module A (3)**

This course is the first of three modules required to become an Office of the State Fire Marshal (OSFM) approved fire investigator. Fire behavior, the chemistry of fire, electrical components, and basics of fire investigation are discussed. (3 contact hours)

Prerequisite: FIS-219 or consent of coordinator

**FIS-231 Fire Investigation Module B (3)**

This course is the second of three modules required to become an Office of the State Fire Marshal (OSFM) approved fire investigator. Motives for setting fires, juvenile fire setter characteristics, legal issues, state statutes, courtroom testimony, chain of evidence, preparing an arson case, and investigations involving explosives will be discussed. (3 contact hours)

Prerequisite: FIS-230 or consent of the coordinator

**FIS-232 Fire Investigation Module C (3)**

This course is the third of three modules required to become an Office of the State Fire Marshal (OSFM) approved fire investigator. Photography related to fire scenes, how to use photography equipment to document a scene, conducting a death investigation, verbal and non-verbal communication evidence collection, and financial analysis will be discussed. (3 contact hours)

Prerequisite: FIS-231 or consent of coordinator

**FRE—French****FRE-101 French I (4)**

A course designed for beginning students in French to give practice in the fundamentals of speaking, understanding, reading, and writing everyday French. (4 contact hours)

**FRE-102 French II (4)**

A second-semester course designed for further development of linguistic skills by giving students in French

practice in the fundamentals of speaking, understanding, reading, and writing everyday French. (4 contact hours)  
Prerequisite: FRE-101 or 2 years of high school French

#### **FRE-201 French III (4)**

This comprehensive review of grammar elements includes reading based on French civilization. Geographical, historical and literary viewpoints are covered. Increased use of French in class discussions is expected. (4 contact hours)

Prerequisite: FRE-102 or 3 years of high school French

#### **FRE-202 French IV (4)**

Emphasizes mastery of basic language skills of aural comprehension, speaking, reading, and writing. Includes interpretation and discussion of selected novel or play. (4 contact hours)

Prerequisite: FRE-201 or 4 years of high school French  
IAI Code: H1 900

### **GEL—Geology**

#### **GEL-150 Physical Geology (4)**

Introduces geological study of the earth. Geological principles and processes dealing with geomorphology, crustal movements, rock and mineral identification, volcanism, and sedimentation are covered. Includes aerial photo and topographic map interpretations and extensive field work in laboratory experiences. Fee is required. (6 contact hours)

IAI Code: P1 907L

#### **GEL-151 Historical Geology (4)**

Introduces origin and structure of the earth. Emphasizes North America, growth of continents and mountain building. Studies evolution in plant and animal life as documented by fossil remains. Interpretation of geologic forces by means of topographic maps, geologic folios, aerial photos, and extensive field work are important segments of laboratory experiences. Fee is required. (6 contact hours)

Prerequisite: GEL-150

### **GEO—Geography**

#### **GEO-101 Cultural Geography (3)**

Analyzes special distribution and relationship among significant cultural factors. Population distribution and trends, human migration, settlement patterns, and urban problems are discussed. (3 contact hours)

IAI Code: S4 900N

#### **GEO-102 World Regional Geography (3)**

Major geographic regions of the world are explored. Includes geographic analysis of physical environments, and relationships between humans and physical environments. Influence of human existence on the environment is discussed. (3 contact hours)

IAI Code: S4 900N

#### **GEO-201 Economic Geography (3)**

Studies spatial distribution and interaction of economic activities. Analyzes tribal, traditional and modern economic societies. Emphasizes significance of urban industrial society and modern transportation. (3 contact hours)

IAI Code: S4 903N

### **GIS—Geographic Information Systems**

#### **GIS-101 Orientation to GIS Careers (1)**

This course is an introduction to careers in geographic information science and technology, including geographic information systems (GIS), global positioning systems (GPS), cartography, remote sensing, and spatial analysis. The class will review industry organizations, associations, certifications and related credentials. The class will also review the GIS curriculum career pathways and articulation opportunities with upper division schools. The class will introduce organizations and business that employ GIS professionals. (1 contact hour)

#### **GIS-110 Fundamentals of Geospatial Science (3)**

This course is an introduction to the fundamental concepts of geographic information science and technology (GIST), including geographic information system (GIS), global positioning systems (GPS), cartography, remote sensing, and spatial analysis. Exploration of how geospatial technologies are used in addressing human and environmental issues also are discussed. (3 contact hours)

#### **GIS-112 Intro to Geospatial Technology (3)**

This course is an introduction to the fundamentals of geospatial technology, including geographic information systems (GIS), global positioning systems (GPS), cartography, remote sensing, and spatial analysis through a series of hands-on computer-based exercises. Participants will learn how to utilize geospatial technology to address social and environmental issues. This course is designed to be used as stand-alone course to complement other disciplines or as an entry-level course into a geospatial program. Course content is based upon the United States Department of Labor's Geospatial Technology Competency Model for entry-level geospatial occupations, including geospatial or GIS technicians and technologists. (4 contact hours)

**GIS-114 Data Acquisition & Management (3)**

This course addresses the interpretation and understanding of a variety of data formats available in GIS. It introduces the fundamental concepts of primary GIS data creation and discusses quantitative techniques for collection, classification, and management of geographical data. (4 contact hours)

Prerequisite: GIS-112

**GIS-120 Spatial Analysis (3)**

This course is an introduction for students to develop problem-solving and decision-making skills using geospatial analysis techniques, applicable to a range of disciplines. (4 contact hours)

Prerequisite: GIS-112

**GIS-122 Cartographic Design (3)**

This course introduces fundamental cartographic concepts. Successful students will be able to employ design principles to create and edit effective visual representations of data (e.g., maps, graphs and diagrams) in different formats (e.g., hardcopy, digital, web). Specific topics include the ethical and appropriate application of map scale, map projections, generalization and symbolization. Course content is based upon the United States Department of Labor's Geospatial Technology Competency Model for entry-level geospatial occupations, including geospatial or GIS technicians and technologists. (4 contact hours)

Prerequisite: GIS-112, GIS-114, and GIS-120

**GIS-124 Introduction to Remote Sensing (3)**

This course is an introduction to remote sensing of the earth. Topics include the physical principles on which remote sensing is based, history and future trends, sensors and their characteristics, image data sources, and image classification, interpretation and analysis techniques. (4 contact hours)

**GIS-126 GIS Capstone Project (3)**

This course is designed to integrate study with practical hands-on experience in geographic information systems. The individual student will identify a topic of study, set specific analysis, and make a presentation of the project. (5 contact hours)

**GIS-128 Internship in Geospatial Technology (3)**

This course is a structured experience in a supervised setting that is related to the student's major and career interests. Practical experience is under the guidance of faculty and the internship supervisor. Students will work under the direction of a qualified professional with a focus on geospatial technology. The internship provides students with an overview of procedural, professional, and ethical issues faced by a geospatial technician on the job.

Students will prepare a summary presentation. (6 contact hours)

**GRN—Gerontology****GRN-101 Introduction to Gerontology Careers (3)**

This course will introduce various careers available in Gerontology. It will critically examine values, interest, and skills to maximize students' potential for finding the best career fit. Market research is explored to gain information specific to the details and employment outlook of unique gerontology career interests, necessary degrees or certifications, working environment and job outlook. (3 contact hours)

**GRN-102 Diversity in Aging (3)**

This course examines the experiences of older adults from diverse cultural and ethnic backgrounds and considers how these differences influence the aging process. It explores the impact of class, race/ethnicity, gender, economic resources, and health on growing older. Students will have an opportunity to consider their own diversity and how it influences their relationships and shapes the opportunities over the course of their lives. (3 contact hours)

**GRN-103 Public Policy and Aging (4)**

This course is designed to provide a knowledge base for understanding the history, processes, outcomes and impacts of social policy affecting older Americans. It will examine the political systems and interventions for change in which older Americans participate. Students will obtain a perspective on the magnitude and character of problems facing our aging society. By examining public policies and forces that influence policy making, students will comprehend how the current policies for aging will affect the concerns and retirement in the future. (4 contact hours)

**GRN-104 Aging and the Healthcare Systems (3)**

This course introduces students to the basic elements of the United States healthcare system as it relates to aging. This broad field of study examines: the social aspects of disease distribution in the population, social stress, sickness and role behavior, medical education, the physician-patient relationship, and healthcare technology. (3 contact hours)

**GRN-105 Death and Dying (3)**

This course is designed to provide a knowledge base for understanding the circumstances and perspectives of dying persons and their families. A primary focus of the course will be on the open, collaborative, and frank discussion of concerns, issues, and questions regarding death and death related issues. Concepts of death and dying will be studied from multiple and diverse viewpoints that will heighten the student's awareness of this life stage as an integral, natural and normal part of living. (3 contact hours)

## HAC—Heating and Air Conditioning

### HAC-105 Air Conditioning Theory (3)

Covers basic definitions and physics used in refrigeration. Gain working knowledge of properties of air and body comfort. Emphasizes air conditioning components and how they contribute to comfort. (3 contact hours)

### HAC-111 Introduction to Controls (4)

Covers electrical theory as it applies to servicing and installation of refrigeration, air conditioning and heating equipment. Emphasizes safety controls, motor circuits and space comfort control. Fee is required. (6 contact hours)

### HAC-115 Basic Service Procedures (4)

Provides knowledge needed in proper use of meters and gauges for diagnosing and solving problems. Fee is required. (6 contact hours)

Corequisite: Registration or credit in HAC-105

### HAC-140 Sheet Metal Hand Forming (4)

Provides the knowledge required in the utilization of forming and shaping sheet metal with the use of hand and machine tools. Utilizes previously learned skills in blueprint reading and layout to visualize and shape geometric designs. Fee is required. (6 contact hours)

### HAC-150 Advanced Control Systems (4)

Installation, diagnosis and servicing of electrical systems used in split residential and small commercial air conditioning and refrigeration systems are covered. Emphasizes advanced control system needed to achieve comfort and safety. Fee is required. (6 contact hours)

Prerequisite: HAC-111

### HAC-154 Installation and Service (4)

Covers proper procedures for installing and servicing residential and commercial air conditioning, heating and refrigeration equipment. Emphasizes proper selection and use of tools. Fee is required. (6 contact hours)

Prerequisite: HAC-115

### HAC-158 Introduction to Heating (4)

Explores various types of heating systems and servicing involved with each system. Fee is required. (6 contact hours)

Prerequisite: HAC-111

### HAC-165 Sustainable Energy Practices (4)

This course will investigate the application and practical implementation techniques of sustainable energy practices and concepts in new and remodeled buildings, with the intent of optimizing peak energy efficiency performance while utilizing sustainable energy. (6 contact hours)

### HAC-180 Electronic Controls (4)

Provides the knowledge required in the proper installation and diagnostic problem solving of electronic, solid state controls and circuits. Fee is required. (4 contact hours)

Prerequisite: HAC-150 or consent of instructor

### HAC-233 Seminar (1)

Discussion of internship activities and problems, a student's performance, and any questions arising out of an internship. Development of professional attitude. Course strives to narrow the gaps between theory and on-the-job reality. (1 contact hour)

Prerequisite: Student must be in the last semester or have completed the HAC Program Corequisite: HAC-237

### HAC-237 Internship (3)

At HAC internship sites under the supervision of a technician, students will conduct installations and diagnostic problem solving on HVAC equipment. Fee is required. (15 contact hours)

Prerequisite: Student must be in the last semester or have completed the HAC Program Corequisite: HAC-233

### HAC-240 HVAC Troubleshooting (5)

This course provides students with the appropriate knowledge and skills in the proper advanced use of meters and gauges for diagnosing problems in heating and air conditioning equipment and correcting the problems. Fee is required. (8 contact hours)

Prerequisite: HAC-115, HAC-150, HAC-154, and HAC-158

### HAC-250 Commercial Systems Operations (5)

This course is designed to provide students with practical theory and operating characteristics of commercial building HVAC systems and their applicable methods of control. (8 contact hours)

Prerequisite: HAC-150, HAC-154, HAC-158, HAC-180 or consent of instructor

### HAC-260 Chiller Plant Operations (4)

This course is designed to provide students with practical theory and operating characteristics of chilled water chillers in a central plant environment. (6 contact hours)

Prerequisite: HAC-150, HAC-154, HAC-158, HAC-180, or consent of instructor

### HAC-270 Boiler Power Plant Operations (4)

This course is designed to give the student a basic understanding of the theory and operation of a central heating and power generation plant. (6 contact hours)

Prerequisite: HAC-150, HAC-154, HAC-158, HAC-180, or consent of instructor

## HDV—Human Development

### HDV-100 Human Potentials (2)

In this course students will become aware of their potential through discussion of achievements, strengths, values, and goals. Group participation is included. (2 contact hours)

### HDV-101 College Transition (2)

This course is a COL-101 equivalent course for special populations. It provides students an opportunity to assess their purpose for college, assess their study strategies, set college and career goals, examine their values and decision-making skills, and develop an appreciation for diversity. This course will also allow the students to address topics of concern related to the special population of which they are a part. As with all HDV courses, this course is meant to be a process-focused course in which students can learn about themselves and gain skills to help them be successful as college students. (2 contact hours)

### HDV-111 Career Planning (2)

This course examines theories and principles of career planning. The course explores types of career fields and occupations. The course covers how to form an effective decision-making strategy in choosing a career field and how to apply strategy for lifelong career development and occupational satisfaction. Fee is required. (2 contact hours)

## HIS—History

### HIS-101 Western Civilization I (3)

Surveys national, political, institutional, socio-economic, intellectual, religious, and cultural development of the West from ancient times to 1715, with an emphasis on later developments. (3 contact hours)

IAI Code: S2 902

### HIS-102 Western Civilization II (3)

Discusses the rise and decline of Western global dominance. Focuses on revolutionary developments in government, economics, science, and the arts since 1715. (3 contact hours)

IAI Code: S2 903

### HIS-105 The World Since 1945 (3)

Covers Soviet-American rivalry and the growing prominence of the newly independent Third World states. Emphasizes effects of international organizations and technology. (3 contact hours)

### HIS-150 World History to 1500 (3)

The first of a two-course sequence on the history of the intellectual, political, social, economic and cultural

development of world societies from the earliest times to the present. The course focuses on the period beginning with the Neolithic Age down to 1500 CE. Examines landmark documents and artifacts that reflect world cultures. (3 contact hours)

IAI Code: S2912N

### HIS-151 World History since 1500 (3)

The second of a two-part sequence, this course examines the ongoing development of societies around the world with a particular emphasis on the increasing scale and intensity of global interaction in the period since 1500. Major topics include population growth, technological change, intercontinental migration, and the rise of a global economy. Students in the history education and social sciences education majors may be required to complete additional assignments. (3 contact hours)

IAI Code: S2913N

### HIS-201 American History I (3)

This survey-and-problems approach to American history from the Colonial Period through the Reconstruction Era covers intellectual, social and economic concepts. (3 contact hours)

IAI Code: S2 900

### HIS-202 American History II (3)

This survey-and-problems approach to American history from the Gilded Age to the present covers the rise of modern industry, new social thought and international involvement. (3 contact hours)

IAI Code: S2 901

### HIS-204 African-American History (3)

Covers the great African empires to the contemporary scene. Emphasizes problems of blacks and contributions of blacks to civilization. (3 contact hours)

### HIS-207 Illinois and Local History (3)

Covers major developments in Illinois and metropolitan Chicago from the prehistoric period to the present. Influence of major events, individuals, urbanization, and industrialization on the state's progress is discussed. Students will be able to immerse themselves in the course curriculum by engaging in multiple off-campus group excursions to sites ranging from the Historic Pullman District to the Chicago Riverboat Architectural Cruise as well as an optional excursion to Starved Rock State Park. Discounted student fees may be required for some excursions. (3 contact hours)

### HIS-210 History of Asia (3)

Surveys south, southeast and east Asian history from prehistoric times through World War II. Emphasizes

religions and cultures, and early states. Western imperialism, the effect of World War II on Asian nationalism, and independence movements are examined. (3 contact hours)

IAI Code: S2 920N

### **HIS-211 American Military Experience (3)**

Studies evolution of the United States military and its interrelationship with American society, government and economy. Includes popular attitudes, civilian control, military institutions, interservice rivalry, technology, ethics, limited and unlimited war, preparedness, and major campaigns. (3 contact hours)

### **HIS-215 History of Africa (3)**

Surveys ancient times to the present, providing an overview of African people and their culture in the Orient, the Iberian peninsula and the African continent. Addresses major issues such as the impact of European expansionism, imperialism and colonialism; the growth of secularism and commercialism; and the emergence of national sovereignty, cultural hegemony and self-determination. (3 contact hours)

IAI Code: S2 920N

### **HIS-220 History of Latin America (3)**

Covers significant political, economic and social developments in the history of Latin America, emphasizing certain key nations, including Mexico, Argentina and Brazil. (3 contact hours)

IAI Code: S2 920N

### **HIS-230 History of the Middle East (3)**

A study of the historical development of the Middle East, focusing on the rise and spread of Islam, growing Western dominance, the rise of nationalism, and modernization of the area as it exists today. Arab countries, Israel, Iran, and Turkey are covered. (3 contact hours)

### **HIS-250 Survey of British History I (3)**

Conveys a broad perspective on British history to 1714 focusing on three major themes: the development of social and religious life in Britain; relations between England, Scotland, Wales, and Ireland; and links with Europe and the wider world. This course is for students who will study at Christ Church College, Canterbury, England, and who meet certain academic requirements. (3 contact hours)

### **HIS-251 Survey of British History II (3)**

A broad perspective on British history from 1714 focusing on three major themes: the development of social and religious life in Britain; relations between England, Scotland, Wales, and Ireland; and links with Europe and the wider world. This course is for students who will study at Christ Church College, Canterbury, England, and who meet certain academic requirements. (3 contact hours)

### **HIS-254 European Cities (3)**

Study European communities and institutions, and development of cities and urban social life. Covers urban planning and the response to growth, change and industrialization. Examines current life in European cities, and problems and comparisons to American cities, including social stratification, race and ethnic relations, growth, and regional planning. This course is for students who will study at Salzburg College, Austria, and who meet certain academic requirements. (3 contact hours)

## **HSC—Health Science Careers**

### **HSC-100 Basic Nursing Concepts (2)**

This course will serve as a review and update of content covered in a practical nursing program. It also will include an orientation to the Nursing A.A.S. Program and professional nursing to assist LPNs successful transition to the new role. The course will focus on utilizing the nursing process with emphasis on assessment, nursing diagnosis, planning of interventions, and evaluation of care. Nursing content and concepts related to commonly occurring alterations will be reviewed, as well as principles of selected psychomotor skills. Demonstration of competencies appropriate to this level student will be required. (3 contact hours)

Prerequisite: Current LPN licensure and admission to ADN program or faculty recommendation for ongoing ADN students. (Note: For students who graduated five years or more ago from a nursing program, admission and awarding of credit for prior learning will be based on individual assessment. Students graduating from non-NLN accredited nursing programs will apply for transfer based on individual competencies, not the program articulation mandates set forth in the Illinois Articulation Initiative)

### **HSC-110 Introduction to Health Professions (3)**

This course is an overview of the healthcare industry, including medical ethics and law, trends in health care, and exploration of career options. It includes an introduction to medical terminology, anatomy and physiology, vital sign measurement, math for conversions, basic cardiac life support skills, and universal precautions training. (4 contact hours)

### **HSC-120 Pharmacology & Disease Processes I (3)**

This course focuses on body systems and their functional interrelationships in health and disease. Discussions focus on understanding the pathophysiology of human conditions throughout the lifespan. Emphasis is on the application of physiological concepts in problem-solving. An understanding of drug classifications, dosing and administration and their interactions with health conditions are also covered. Beginning concepts regarding math for

meds, IV fluids and parental nutrition are included. (3 contact hours)

Prerequisite: Admission to the Nursing Program

### **HSC-140 Pharmacology & Disease Processes II (2)**

This course focuses on body systems and their functional interrelationships in health and disease. Discussions focus on understanding the pathophysiology of human conditions throughout the lifespan. Emphasis is on the application of physiological concepts in problem-solving. An understanding of complex drug classifications, dosing and administration and their interactions with health conditions are also covered. Concepts regarding math for meds, IV fluids and parental nutrition are included. (2 contact hours)

Prerequisite: HSC-120

### **HSC-150 Basic Nurse Assistant Training (7)**

Upon successful completion of this 144-hour course, approved by the Illinois Department of Public Health, students may apply for the State certification exam and subsequent employment as a Certified Nurse Aide in long-term care facilities, home health agencies, and hospitals. Lecture and lab sessions will be conducted on campus, with clinical rotations conducted at long-term care facilities. Participation requires: MVCC student ID, uniform, stethoscope, textbooks, workbook, and wristwatch with second hand, health insurance, and physical examination with required titer lab results and a 2-step TB test 10 days prior to the start of clinical sessions. Attendance is mandatory in all Alzheimer, lab and clinical sessions. During the course of the lab sessions, students will receive their AHA CPR certification which will meet the CPR requirement to attend clinical. Fee is required. (9.5 contact hours)

Prerequisite: Valid U.S. Soc Sec Number, minimum of 17 years of age, and reading placement score at or above RDG-091 or IEL-096

## **HUM—Humanities**

### **HUM-101 Western Humanities I: Foundations (3)**

This interdisciplinary course surveys artistic and intellectual expression from ancient Greece and Rome, the Middle Ages in Europe, and the Renaissance in Europe. It explores works, figures, ideas, movements, and styles in history, literature, philosophy, religion, and the visual and performing arts that are significant to, representative of, and foundational to Western culture. (3 contact hours)

IAI Code: HF 902

### **HUM-102 Western Humanities II: Continuities (3)**

This interdisciplinary course surveys artistic and intellectual expression in Europe from the 17th century to the present. It explores works, figures, ideas, movements, and styles in

history, literature, philosophy, religion, and the visual and performing arts that are significant to, representative of, and foundational to Western culture. (3 contact hours)

IAI Code: HF 903

### **HUM-115 World Mythology (3)**

This comparative survey course explores representative myths, stories, legends, tales, archetypes, motifs, icons, symbols, deities, heroes, rituals, etc., of various geographic areas and time periods from both Western and non-Western cultures. Adjunctively, it explores the nature and function of mythology, its role in human life, its historical and prehistorical origins, the similarities and differences among mythologies of various cultures, and a variety of theoretical approaches to interpreting mythology. (3 contact hours)

IAI Code: H9 901

### **HUM-120 Women in the Humanities (3)**

This interdisciplinary course surveys the artistic and intellectual expression of women, from a variety of Western and non-Western cultures, from antiquity to the present. It will explore significant, representative, and foundational works, figures, ideas, movements and styles in history, literature, philosophy, religion, and the visual and performing arts, particularly within the contexts of gender identity and consciousness and the influence of gender on both the generation and reception of historical, philosophical, religious and artistic expression. (3 contact hours)

IAI Code: HF 907D

### **HUM-135 African & Middle Eastern Humanities (3)**

This interdisciplinary course surveys artistic and intellectual expression in Africa and the Middle East. It explores works, figures, ideas, movements and styles in history, literature, philosophy, religion, and the visual and performing arts that are significant to, representative of, and foundational to African and Middle Eastern cultures. (3 contact hours)

IAI Code: HF 904N

### **HUM-140 Asian and Oceanic Humanities (3)**

This interdisciplinary course surveys artistic and intellectual expression in Asia and Oceania. It explores works, figures, ideas, movements, and styles in history, literature, philosophy, religion and the visual and performing arts that are significant to, representative of, and foundational to Asian and Oceanic cultures. (3 contact hours)

IAI Code: HF 904N

### **HUM-145 Native American Humanities (3)**

This interdisciplinary course surveys artistic and intellectual expression in native North America, Mesoamerica, South America, and the Caribbean. It will explore works, figures,

ideas, movements, and styles in history, literature, philosophy, religion, and the visual and performing arts that are significant to, representative of, and foundational to native North American, Mesoamerican, South American, and Caribbean cultures. (3 contact hours)

IAI Code: HF 904N

### **HUM-249 British Culture and Society (3)**

The course looks at contemporary social, cultural and political life in Britain. Examines and analyzes data on the family, leisure and economy. An introduction through lectures and visits to the heritage of British art and theater. Looks at British political life and Britain's developing relations with the Commonwealth, Europe and the United States. This course is for students who will study at Christ Church College, Canterbury, England, and who meet certain academic requirements. (3 contact hours)

### **HUM-251 Austrian Civilization (3)**

This course is an introduction to Austrian history and culture. It focuses on historical, musical and artistic heritage of Austria ending with a survey of Austrian life today. This course is for students who will study at Salzburg College, Austria, and who meet certain academic requirements. (3 contact hours)

## **IEL—Intensive English Language**

### **IEL-062 Int Listening Notetaking Speaking I (2-3)**

This course is designed for the Intermediate English Language learner student who is not proficient in basic English conversation. The course emphasizes oral communication skills through an interactive approach. The course includes essential pronunciation and listening skills, as well as basic grammatical structures and patterns. In addition to listening and speaking, reading and writing are included. (3 contact hours in spring/fall; 5 contact hours in summer)

Prerequisite: Appropriate IELP assessment score

Corequisite: IEL-072 or IEL-082 and IEL-092

### **IEL-064 Int Listening Notetaking Speaking II (2)**

This course is designed to enable intermediate academic English Language Learner students gain confidence and accuracy in speaking and listening. Presentation, discussion, listening, and note-taking skills will be covered. (3 contact hours)

Prerequisite: IEL-062 with a minimum grade of "C" or appropriate IELP assessment score

### **IEL-066 Adv Listening Notetaking Speaking (2)**

This course is designed for the advanced English Language Learner students and develops more effective,

confident and comfortable oral communication and study skills as they transition to regular college courses. (3 contact hours)

Prerequisite: IEL-064 with a minimum grade of "C" or appropriate IELP assessment score

### **IEL-072 Intermediate Grammar I (3)**

This course is designed for beginning-level academic ESL/international students who read and write in their own languages and who have some ability to connect words in simple sentences in English. This course includes an introduction to the basic points of English grammar, spelling and usage. (4 contact hours)

Prerequisite: Appropriate IELP assessment score

### **IEL-074 Intermediate Grammar II (3)**

This course is designed for intermediate-level academic ESL/international students to comprehend and use the basics of grammar and punctuation with simple, compound and complex sentences, and to develop effective paragraphs. (4 contact hours)

Prerequisite: IEL-072 with a minimum grade of "C" or appropriate IELP assessment score

### **IEL-076 Advanced Grammar (3)**

This course is designed for the advanced ESL/international student. This course presents more difficult aspects of English grammar, spelling and syntax. (4 contact hours)

Prerequisite: IEL-074 with a minimum grade of "C" or appropriate IELP assessment score

### **IEL-082 Intermediate Writing I (3)**

This course is designed for beginning-level academic ESL/international students who read and write in their own languages and who have some ability to connect words in sentences in English. This course covers grammatical patterns at the sentence level, basic punctuation and capitalization, and organizational patterns in paragraphs. (5 contact hours)

Prerequisite: Appropriate IELP placement test score

### **IEL-084 Intermediate Writing II (3)**

This course is designed to help intermediate level academic ESL/international students develop the writing skills needed to express their ideas concisely and accurately. The course emphasizes writing sentences, simple paragraphs, and short compositions. (5 contact hours)

Prerequisite: IEL-082 with a minimum grade "C" or appropriate IELP assessment test score

### **IEL-086 Advanced Writing (3)**

This course is designed for the advanced ESL/international student who needs to develop the writing style required in academic classes. This course presents the principles of

English rhetoric. The course includes the development of expository, analytical and argumentative essays, as well as the introduction to the basics of researching skills. (5 contact hours)

Prerequisite: IEL-084 with a minimum grade of "C" or appropriate IELP assessment test score

#### **IEL-092 Intermediate Reading I (4)**

This course is designed for the beginning ESL/international student to develop reading skills and strategies in order to become a more efficient, critical reader. The course emphasizes vocabulary building and reading strategies. (6 contact hours)

Prerequisite: Appropriate IELP assessment test score

#### **IEL-094 Intermediate Reading II (4)**

This course is designed to help the intermediate ESL/international student develop reading skills and strategies in order to become a more efficient critical reader. The course emphasizes vocabulary building, comprehension strategies, academic reading techniques, and summarizing. (6 contact hours)

Prerequisite: IEL-092 with a minimum grade of "C" or appropriate IELP assessment test score

#### **IEL-096 Advanced Reading (4)**

This course is designed to help the advanced ESL/international student develop the reading skills and strategies needed to become a more efficient critical reader. The emphasis is on vocabulary building, comprehension improvement, and inferential and evaluative reading. Students will apply new reading techniques to a variety of reading materials. (6 contact hours)

Prerequisite: IEL-094 with a minimum grade of "C" or appropriate IELP assessment test score

### **IMM—Mechanical & Fluid Power Maintenance**

#### **IMM-101 Mechanical Systems I (3)**

Study fundamental components of mechanical systems such as pulleys, gears, chains, belts, couplings, and packing glands. Use of catalogs, trade references and writing of a maintenance report are included. Fee is required. (4 contact hours)

#### **IMM-103 Machinery Moving and Set-Up (2)**

Learn the safe and correct movement of equipment. Preparing and rigging equipment, site preparation, mounting, leveling, and alignment of equipment are included. Fee is required. (4 contact hours)

#### **IMM-107 Mechanical Systems II (3)**

Learn to adjust and maintain mechanical systems such as pumps, transmissions, gear reducers, and assorted

mechanical linkage systems. Study proper installation of bearings and bushings for these systems. Nondestructive evaluation is surveyed. Fee is required. (4 contact hours)

Prerequisite: IMM-101

#### **IMM-110 Hydraulics (3)**

Covers hydraulic principles, circuits, oils, controls, valves, troubleshooting, repairing and rebuilding, and hydraulic pumps, motors and servo-systems. Fee is required. (5 contact hours)

#### **IMM-115 Pneumatics (3)**

This course parallels the development followed in hydraulics: principles, circuits, meters, gauges, actuators, controls, troubleshooting, repairing, and rebuilding. Fee is required. (4 contact hours)

#### **IMM-120 Fluid Power I: Basic Circuits (3)**

This course covers basic principles of pneumatics, hydraulics, circuit construction, repair, and troubleshooting. Includes detailed evaluation of basic component functions and operation within circuits. Fundamental formulae and calculations of circuit function and capability are included. Fee is required. (4 contact hours)

#### **IMM-220 Fluid Power II: Intermediate System (3)**

This course covers intermediate principles of pneumatics, hydraulics, circuit construction, repair, and troubleshooting. Includes detailed evaluation of intermediate component functions and operation within circuits. Intermediate-level formulae and calculations of circuit function and capability are included. Fee is required. (4 contact hours)

Prerequisite: IMM-120

### **IMS—Information Management Systems**

#### **IMS-100 Personal Computer Basics (1)**

This course is designed to assist students with no previous computer experience in defining computer terminology and acquiring basic navigation skills in the Windows environment. Students will develop an understanding of how computers can be used for personal and business use. Students with little or no previous computer experience are strongly encouraged to enroll in this course prior to or concurrent with enrollment in IMS-101, Introduction to Computer Systems, or IMS-115, Introduction to PC Applications. Fee is required. (1.5 contact hours)

#### **IMS-101 Introduction to Computer Systems (3)**

This course provides an overview of computer hardware, software, networks, and the internet. Topics include usage, terminology, hardware, software, utilities and operating system software, file management, programming, networks, researching on the Internet, and data security and privacy issues. Students are introduced to the elements of

computer applications—word processing, spreadsheets, database management, and presentation graphics. Students with little or no computer experience are strongly encouraged to enroll in IMS 100, Personal Computer Basics, prior to or concurrent with IMS 101. Students who successfully complete this course will possess the skills and knowledge necessary to take the Internet and Computing Core Certification exam (IC3). Fee is required. (4 contact hours)

IAI Code: BUS902

### **IMS-108 Internet Basics (1)**

This course is intended to familiarize the student with the internet. Basic computer literacy is assumed. Students will be presented with an overview of internet basics, and the fundamentals of browsers, the World Wide Web, email, and other internet utilities. Students in this course will complete projects that integrate the skills learned in all applications. (1.5 contact hours)

### **IMS-115 Microsoft Office I (3)**

This course is designed to develop integrated PC application skills required for the completion of personal and business projects using the Microsoft Office Suite. Projects utilize fundamental techniques of word processing, spreadsheet, database management, and presentation graphics software as well as Windows and file management skills. Students with little or no computer experience are encouraged to enroll in IMS-100 Personal Computer Basics prior to or concurrent with IMS-115. Keyboarding skills are recommended for successful completion of this course. Students may enroll in OSA-100 Keyboarding I. Fee is required. (4 contact hours)

IAI Code: BUS902

### **IMS-215 Microsoft Office II (3)**

This course is designed to develop advanced PC application skills required for the completion of personal and business projects using the Microsoft Office Suite. Advanced projects utilizing word processing, spreadsheet, database management, and presentation graphics software are included. Advanced collaborative features and application integration are also included. Keyboarding skills are recommended for successful completion of this course; students may enroll in OSA-100 to develop keyboarding skills. Fee is required. (4 contact hours)

Prerequisite: IMS-115

## **IST—Integrated Systems Technology**

### **IST-101 Introduction to Machine Tools (3)**

This course provides a general introduction to machining as a foundation technology in manufacturing. Students will be introduced to the theory and operation of drilling, milling,

and turning machines; speeds and feeds; and precision measurement. Fee is required. (5 contact hours)

### **IST-109 Prints for Industry (3)**

Introduces the interpretation of orthographic drawings for manufacturing. Students will read and interpret process and instrumentation diagram prints. Fee is required. (4 contact hours)

### **IST-111 Threading, Milling, and Grinding (3)**

Studies single point threading on an engine lathe and horizontal milling. Introduces grinding and surface grinders. Fee is required. (5 contact hours)

Prerequisite: IST-101 or consent of instructor

### **IST-199 Special Topics (1-3)**

This course covers emerging topics of interest to engineering and technology. The topics to be covered will be identified with narrative by section number in the college schedule of classes. A syllabus documenting topics, description, objectives, and information about prerequisite skills will be available for each section. This course may be taken up to three times for credit as long as different topics are selected. Fee is required. (3-6 contact hours)

## **JRN—Journalism**

### **JRN-101 Introduction to Mass Communications (3)**

A course designed to examine the fundamentals of the media industry from a historic and economic perspective. Studies media function, rights, restrictions, responsibilities, and consequences as they apply to the consumer. Occupational opportunities also will be discussed. (3 contact hours)

Corequisite: Registration or credit in COM-101 IAI Code: MC911

### **JRN-111 Newswriting I (3)**

Development of basic journalistic techniques; news gathering, reporting, interviewing; the use of library and online database research methods; the organization of news stories; leads and other related skills. Students will write basic stories under real-time constraints. (3 contact hours)

Prerequisite: JRN-101 IAI Code: MC919

### **JRN-112 Newswriting II (3)**

Advanced development of journalistic skills in researching, organizing, and writing news and feature stories. Includes writing techniques for print and telecommunications media. Emphasizes legal rights and ethical responsibilities of news reporting. (3 contact hours)

Prerequisite: JRN-111

## LAN—Local Area Networks

### LAN-101 Orientation to IT Professions (1)

This course enables students to analyze the field of information technology. The class will include a survey of the IT professions, employment skills, definitions, associations, current issues, salaries, and self-assessment survey of skills and competencies. This course will meet three times during the semester. Students also will be required to create a student plan for the IT program at Moraine Valley. Course requirements include attending a local meeting of a professional association related to the field. (1 contact hour)

### LAN-102 Voice and Data Cabling (3)

This course is designed for students interested in the physical aspects of voice and data network cabling and installation. The course focuses on cabling issues related to data and voice connections and provides an understanding of the industry and its worldwide standards, types of media and cabling, physical and logical networks, as well as signal transmission. Students will develop skills in reading network design documentation, part list set up and purchase, pulling and mounting cable, cable management, choosing wiring closets and patch panel installation and termination as well as installing jacks and cable testing. This hands-on, lab-oriented course stresses documentation, design, and installation issues, as well as laboratory safety, on-the-job safety, and working effectively in group environments. This course will help prepare students for the BICSI Registered Certified Installer, level one. Fee is required. (4 contact hours)

### LAN-103 Security Awareness (1)

This course is intended to provide a basic survey of the importance of IT security awareness and data confidentiality. This security awareness-training course walks users through every aspect of information security in a very broad, easy to understand way and explains to them the value of securing data, both for themselves and the organization. The class will introduce legislation, local, state and federal privacy policies and liability of individuals and institutions related to data confidentiality and integrity. The course will introduce risk management, security policies, and common threats and countermeasures. The course will also present best practices in access control and password policies. Fee is required. (4 contact hours)

### LAN-111 IT Essentials - A+ (3)

This course offers a hands-on approach to microcomputer maintenance. This course introduces a history of personal computer evolution. It examines the bus architecture, central processing unit parameters and replacement considerations, memory, video systems, storage devices and input/output devices. The course introduces the most popular and recent technologies. This course is designed to

prepare the successful student for the CompTIA A+ hardware certification. Fee is required. (4 contact hours)

### LAN-112 Managing IT - A+ (3)

This course offers a hands-on approach to managing information technology in a variety of environments. Students will be provided the skills needed to perform tasks such as installation, building, repairing, configuration, troubleshooting, optimizing, diagnosing and preventive maintenance in the context of the field service or enterprise environment and interacting with customers remotely. The course will also introduce critical responsibilities commonly required in managing IT within an organization including project management, help desk operations and information security. This course is aligned to the CompTIA A+ certification. Fee is required. (4 contact hours)

### LAN-121 Network Essentials (3)

This course provides an introduction to the operation of computer networks and networking devices. The course also provides an examination of the history and evolution of data communications and computer networks. Hardware and software network configurations, operations and requirements will be discussed. Topics include network media and topologies, the OSI model, protocols, standards, technologies, network implementation, and network support. The course content aligns to some of the CompTIA Network+ objectives. Fee is required. (4 contact hours)

### LAN-122 Network Services (4)

This course is a continuation of LAN-121 with an emphasis on network management, analysis, and addressing. The course will introduce essential network services such as ftp, http, dnsp, dns, messaging, authentication and wins. The course provides hands-on exercises in which each student will be required to configure network services. Emphasis will be on configuration, analysis, proactive maintenance, and troubleshooting. This course is designed to supplement the A+, Network+ and Server+ certifications. Fee is required. (5 contact hours)

### LAN-143 Digital Forensics (3)

This course instructs students in the preservation, identification, extraction, documentation and interpretation of computer data. Students will learn to examine computer data for evidence of a crime or violations of corporate policy. Topics covered include evidence handling, chain of custody, collection, and recovery of computer data using forensic software and methods. Fee is required. (4 contact hours)

Prerequisite: LAN-121

### LAN-153 IT Security Essentials - Security+ (3)

This course introduces the basics of network security. The student is introduced to computer network vulnerabilities

and threats. This course exposes the student to network security planning, network security technology, network security organization and the legal and ethical issues associated with network security. Fee is required. (4 contact hours)

Prerequisite: LAN-122 or consent of instructor

### **LAN-163 Ethical Hacking (3)**

This course introduces the network security specialist to the various methodologies for attacking a network. The student will be introduced to the concepts, principles and techniques, supplemented by hands-on exercises, for attacking and disabling a network. These methodologies are presented within the context of properly securing the network. The course will emphasize network attack methodologies with the emphasis on student use of network attack techniques and tools. Fee is required. (4 contact hours)

Prerequisite: LAN-153 or consent of instructor

### **LAN-220 Linux Administration (3)**

This course is an introduction to the Linux operating system for end users and is complementary to other Cisco networking courses, such as routing and switching. This course will provide a strong foundation for those who wish to move on to more advanced courses in Linux System Administration. The students familiarize with Linux command line utilities as well as the Gnome and KDE graphical user interfaces. Course completers will be well on their way to becoming power users and will have gained familiarity with most varieties of Linux. Fee is required. (4 contact hours)

Prerequisite: LAN-112

### **LAN-221 Scripting and Security (3)**

This course enables students to identify potential vulnerabilities related to scripting and to generate basic scripts to exploit security weaknesses. The course will present common scripting and languages such as PERL, PYTHON, and RUBY. The students will create scripts that automate processes, perform batch operations, and extract information. Fee is required. (4 contact hours)

Prerequisite: LAN-220

### **LAN-230 Managing Windows Servers (3)**

This class will introduce the Windows Server. The class will include installation and configuration of that Windows Server. Topics include user management, hardware and software configuration and security. Students will also configure network services including DNS, DHCP, ADS, printing and network routing. This class is designed to prepare the student for the Microsoft Certified Professional examination. Fee is required. (4 contact hours)

Prerequisite: LAN-122

### **LAN-233 Managing Database Services (3)**

This course is an introduction for installing, configuring, and troubleshooting SQL Server database systems. This course will provide a strong foundation for those who wish to implement and administer corporate database systems. You will become familiar with SQL Server as well as be introduced to other popular database services such as Oracle. Additional topics will include installing or upgrading to SQL Server, configuring database options, managing security, monitoring and fine-tuning system performance, and performing backups and restorations. A basic introduction of the SQL language, directory services, and server management will be covered along with concepts of backup and recovery systems for business continuity. Fee is required. (4 contact hours)

Prerequisite: LAN-122 or consent of instructor

### **LAN-241 LAN/WAN Security (3)**

Provides an introduction to LAN and WAN security. Topics in this course include identifying the types of information technology threats, physical security, access security, file system security, fire design, and legal issues related to security. This course is designed to assist individuals for preparing for the CISSP certification process. Fee is required. (4 contact hours)

Prerequisite: LAN-121

### **LAN-243 Computer Forensics (3)**

Students will be introduced to the profession of computer forensics and investigation as well as the tools and techniques used in the investigative process. Emphasis is on major hardware and software tools, digital evidence controls, and the processing of crime or incident scenes. This hands-on course teaches students in the details of data acquisition, computer forensic analysis, email investigations, image file recovery, report writing and expert witness requirements. Fee is required. (4 contact hours)

Prerequisite: LAN-143

### **LAN-246 Routing and Switching - CCNA (3)**

This class provides a hands-on learning experience in managing, supporting, troubleshooting and optimizing, the network infrastructure of an organization. This class introduces the installation, configuration and management of network switches and routers. Students will compare and contrast different routing and switching protocols and services. The class will provide an overview of command and graphical interfaces used to access and configure network devices. Fee is required. (4 contact hours)

Prerequisite: LAN-122 or consent of instructor

### **LAN-251 WLAN Design - CWNA (3)**

This is an introductory course on wireless local area networking. The course encompasses the design, planning,

implementation, operation and troubleshooting of wireless LANs. The course will provide a comprehensive overview of technologies, security, and design best practices. The course will include hands-on installation and configuration of wireless client adapters, routers, access points, repeaters, bridges and other wireless devices. The class will introduce multiple-vendor equipment. Fee is required. (4 contact hours)

Prerequisite: LAN-122 or consent of instructor

### **LAN-253 Network Security (3)**

This course introduces the network security specialist to the various methodologies for defending a network. The student will be introduced to the concepts, principles, types and topologies of firewalls to include packet filtering, proxy firewalls, application gateways, circuit gateways and stateful inspection. Fee is required. (4 contact hours)

Prerequisite: LAN-122

### **LAN-256 LAN Design - CCNA (3)**

This course is designed to provide a hands-on experience in implementing and configuring complex Cisco multi-switched networks. The class will include an introduction to switched Ethernet networks, virtual LAN technology, spanning-tree protocols and configuration of Cisco switching devices. The class also will include advanced router concepts, including access list management, IPX and IP filtering, traffic management, and IGRP implementation. Students will demonstrate the use of the Cisco IOS to configure network switching and routing devices. Fee is required. (4 contact hours)

Prerequisite: LAN-122 or consent of instructor

### **LAN-260 Internship (3)**

This course is a supervised occupational field experience in a student's area of study. Duties should be of a technical nature but provide broad work experience in the field of study. The internship assignment is planned by the student and internship program coordinator. Fee is required. (15 contact hours)

Prerequisite: LAN-122

### **LAN-263 Managing Network Security II (3)**

Expose the student to the various defense methodologies associated with virtual private networks (VPN), host intrusion detection systems (HIDS) and network intrusion detection systems (NIDS). Introduce the student to the best practices associated with properly securing business critical network systems using VPNs. Fee is required. (4 contact hours)

Prerequisite: LAN-253 or consent of instructor

### **LAN-266 WAN Design - CCNA (3)**

This course is a project in WAN design. The class will include an overview of WAN technologies and WAN configurations on a Cisco router. The second part of the class involves the design, implementation, configuration and demonstration of a fully functional enterprise intranet including HTTP, FTP, NNTP and email services. Fee is required. (4 contact hours)

Prerequisite: LAN-122 or consent of instructor

### **LAN-273 Managing Information Security (3)**

This course affords the network security specialist the opportunity to conduct a vulnerability analysis upon a network in order to practice or refine the attack methodologies with the hacker tools and techniques to which the student was exposed during the various program courses. The student must demonstrate the ability to design, plan and execute a vulnerability analysis against an organization network. The student must prepare a written report of the security design, attack methodology, tools and techniques. Fee is required. (4 contact hours)

Prerequisite: LAN-253

### **LAN-274 Managing VoIP Services (3)**

This course prepares a student for installing, configuring, and maintaining a Cisco IP telephony solution. Emphasis is on Cisco CallManager, the call routing and signaling component for the Cisco IP telephony solution. The lab practice will instruct students on the installation and configuration of Cisco CallManager, configuration gateways, gatekeepers, and switches; and build route plans to place intra- and inter-cluster Cisco IP phone calls. Additional topics will include the installation of the Cisco unified messaging system. (4 contact hours)

Prerequisite: LAN-266

### **LAN-280 High Availability Virtualization (3)**

This course provides instruction and labs including installing the VMware ESX Server, creating virtualized switches and storage, creating and managing virtual machines, establishing access controls, and performing resource monitoring. There are also lectures and labs on VMotion, distributed resource scheduling, and high availability. Virtualization architecture, its applications, and best practices also will be discussed. The class satisfies the VMware Certified Professional (VCP) course requirement. Fee is required. (4 contact hours)

Prerequisite: LAN-246

### **LAN-281 Scaling Virtualization (3)**

This course is designed for experienced VMware vSphere® users. Advanced skills for configuring and maintaining a highly available and scalable virtual infrastructure are taught. Through a mix of lecture and hands-on labs,

students will configure and optimize the vSphere features that build a foundation for a truly scalable infrastructure and discuss when and where these features have the greatest effect. Students who are ready to take their understanding of vSphere to a deeper level and learn how to use advanced features and controls will greatly benefit from this course. Fee is required. (4 contact hours)

Prerequisite: LAN-280

### **LAN-290 Storage Management (3)**

This course provides a comprehensive understanding of the various storage infrastructure components in data center environments. It enables students to make informed decisions on storage-related technologies in an increasingly complex IT environment, which is fast changing due to the adoption of software-defined infrastructure management and third platform technologies (cloud, Big Data, social and mobile technologies). It provides a strong understanding of storage technologies and prepares students for advanced concepts, technologies and processes. Students will learn the architectures, features and benefits of intelligent storage systems including block-based, file based, object-based, and unified storage; software-defined storage; storage networking technologies such as FC SAN, IP SAN, and FCoE SAN; business continuity solutions such as backup and replication; the highly critical area of information security; and storage infrastructure management. This course takes an open approach to describe all the concepts and technologies which are further illustrated and reinforced with EMC-related product examples. Fee is required. (4 contact hours)

Prerequisite: LAN-246

### **LAN-291 Cloud Technologies (3)**

This course educates students on building cloud infrastructure based on a cloud computing reference model. The reference model includes five fundamental layers (physical, virtual, control, orchestration, and service) and three cross-layer functions (business continuity, security and service management) for building a cloud infrastructure. For each layer and cross-layer function, this course covers the comprising technologies, components, processes, and mechanisms. This course takes an open-approach to describe the concepts and technologies, which are further illustrated and reinforced with EMC-related product examples. The course follows the U.S. National Institute of Standards and Technology as a guide for all definitions of cloud computing. Upon completing this course, students will have the knowledge to make informed decisions on technologies, processes and mechanisms required to build a cloud infrastructure. Fee is required. (4 contact hours)

Prerequisite: LAN-246

### **LAN-295 Cloud and Virtual Networking (3)**

This course provides students with the skills to configure, optimize and troubleshoot a Cisco Meraki Cloud Networking environment. Through instructor-led demonstrations and lessons, students will learn how to install and optimize Meraki devices to provide a seamless user experience, and gain a thorough understanding of diagnosing and resolving any issues within the network. Fee is required. (4 contact hours)

Prerequisite: LAN-246

### **LIT—Literature**

#### **LIT-205 Literature for Children/Young Adults (3)**

Survey of the genre of literature for children through young adults, analyzing the social, cultural, and intellectual implications, instruction methodology, including critical thinking assessment, criteria for selection and utilization of literary works-based language development, learning opportunities, and curricular resources in schools and the community. (NOTE: Only 3 credit hours can be earned for either EDU-205 or LIT-205. Duplicate credit in both courses will not be awarded.) (3 contact hours)

Prerequisite: COM-101 IAI Code: H3 918

#### **LIT-213 American Literature I (3)**

American writing from 1600 to the Civil War is explored. Covers the development of analytical, interpretive and critical skills through a study of the literature, its authors and their environments. (3 contact hours)

Prerequisite: COM-101 IAI Code: H3 914

#### **LIT-214 American Literature II (3)**

Covers American writing from the Civil War to the present. Covers the development of analytical, interpretive and critical skills through a study of the literature, its authors and their environments. (3 contact hours)

Prerequisite: COM-101 IAI Code: H3 915

#### **LIT-215 Bible as Literature I (3)**

This course is an analysis of selected books of the Old Testament, with emphasis on literary concepts: allegory and parable, history, epic, fiction, poetry, prophecy, tragedy, myth, and legend. (3 contact hours)

Prerequisite: COM-101 IAI Code: H5 901

#### **LIT-216 Bible as Literature II (3)**

Analyze selected books of the New Testament, with emphasis on literary concepts such as narration, gospel, allegory, history, epistle, apocalypse, myth, and legend. (3 contact hours)

Prerequisite: COM-101 IAI Code: H5 901

**LIT-217 Introduction to Poetry (3)**

An examination of the role of imagery, diction, form, figurative language, and other poetic devices for creating and manipulating sound and sense. Also explore poetry as a literary genre. (3 contact hours)

Prerequisite: COM-101 IAI Code: H3 903

**LIT-218 Introduction to Drama (3)**

This course is a survey and analysis of representative plays from various periods. Includes study of dramatic techniques, and types and elements in selected readings from classical Greek to present-day drama. (3 contact hours)

Prerequisite: COM-101 IAI Code: H3 902

**LIT-219 Women in Literature (3)**

A survey of women in literature. The course will examine the characterization and archetypes of women as they are presented in literary works. The course will include works by authors of both sexes, but emphasis will be placed on female writers frequently ignored in anthologies of literature. (3 contact hours)

Prerequisite: COM-101 IAI Code: H3 911D

**LIT-220 Introduction to Fiction (3)**

Plot structure, narrative technique, character depiction and theme, and fiction as a literary genre are examined. (3 contact hours)

Prerequisite: COM-101 IAI Code: H3 901

**LIT-221 English Literature I (3)**

Covers the Middle Ages to the Romantic period, with an emphasis on literary interpretation and evaluation of major authors. (3 contact hours)

Prerequisite: COM-101 IAI Code: H3 912

**LIT-222 English Literature II (3)**

Covers the Romantic period to the present, with emphasis on literary interpretation and evaluation of major authors. (3 contact hours)

Prerequisite: COM-101 IAI Code: H3 913

**LIT-223 Western Literature I (3)**

This course is an analysis of Greek, Roman, Medieval, and Renaissance works as intellectual and religious foundations of modern Western thought. (3 contact hours)

Prerequisite: COM-101 IAI Code: H3 906

**LIT-224 Western Literature II (3)**

Selected works of universal significance from 1850 to the present are included. Emphasis is on influential European authors and literary trends. Independent study is encouraged. (3 contact hours)

Prerequisite: COM-101 IAI Code: H3 907

**LIT-225 Shakespeare (3)**

Study representative comedies, tragedies and historical plays using interactive technologies or actual play performances to explore contemporary and critical interpretations. (3 contact hours)

Prerequisite: COM-101 IAI Code: H3 905

**LIT-226 Literature of the Non-Western World (3)**

This course introduces literature translated into English by writers from non-Western cultures, for example, Asian (East, Southeast and South), African, and Middle Eastern, with an emphasis on the intellectual, social, and political context of their works. It will examine genres and literary trademarks in significant representative texts from these cultures while also exploring the aesthetics, religions, histories, and philosophies that shape these cultures' contribution to the world. (3 contact hours)

Prerequisite: COM-101 IAI Code: H3 908N

**LIT-227 Literature as Film (3)**

This course studies formal and thematic relationships between literary and cinematic forms, including significant examination of adaptations and influences that demonstrate the strengths of each artistic medium. (3 contact hours)

Prerequisite: COM-101 IAI Code: HF 908

**LIT-228 Latin American Literature (3)**

This course is designed to explore selected significant authors, literary movements, themes, and concerns in the multi-national Latin American literary canon in the context of key historical issues such as the impact of Colonialism, native traditions and symbols, the "Boom" and Magic Realism, and cross-cultural, international and European influences, leading into contemporary historical developments. Special attention will be paid to representations of national character or identity, socioeconomic class and gender. This course will examine multiple Latin American perspectives in response to literary achievements, historical issues and developments. (3 contact hours)

Prerequisite: COM-101 IAI Code: H3 908N

**LIT-230 African American Literature (3)**

This course is designed to explore selected significant issues and concerns from the African American literary canon in the context of key historical moments such as slavery, Jim Crow, Harlem Renaissance, the Civil Rights Movement, and the Black Arts Movement, leading into contemporary historical development. Special attention will be paid to representations of race, religion and gender. This course will examine multiple African-American perspectives

in response to historical issues and developments. (3 contact hours)

Prerequisite: COM-101 IAI Code: H3 910D

#### **LIT-299 Independent Study in Literature (3-4)**

The student and instructor decide on an area of study in the field of literature. The student contracts with the instructor to complete certain projects for three to four credit hours. This course may be taken four times for credit. (3-4 contact hours)

Prerequisite: COM-101

### **LSC—Travel Management/Meeting Planning**

#### **LSC-106 Introduction to Travel Planning (3)**

Designed to prepare students for specialized travel/tourism curriculum courses by introducing them to travel/tourism services, the travel/tourism industry, basic terminology, and available references sources. Career opportunities are examined. (3 contact hours)

#### **LSC-108 International Travel (3)**

Provides instruction in international travel, international documentation requirements, worldwide travel codes and terminology, international hotels and tour manuals. Includes an introduction to international travel geography. (3 contact hours)

#### **LSC-109 Tour/Itinerary Planning (2)**

Provides instruction in domestic tour and itinerary planning, tour documents and manuals, hotel directories, and specialty services. Includes tour escorting, group meeting and convention planning, and major modes of transportation. (2 contact hours)

#### **LSC-110 Fundamentals of Meeting Planning (3)**

Provides an overview of meeting planning including: housing, transportation, catering, function arrangements, audiovisuals, budgeting, negotiations, and legal issues. (3 contact hours)

#### **LSC-122 Special Events Management (3)**

The purpose of this course is to acquire an in-depth knowledge about the specialized field of event management, and to become familiar with management techniques and strategies required for successful planning, promotion, and implementation and evaluation of special events. (3 contact hours)

#### **LSC-130 Airline Pricing and Documentation (3)**

Topics include domestic and international air travel basic terminology and documentation procedures including fares, reservations, e-ticketing, airline computer Global Distribution Systems (GDS), and Internet capabilities. Students will interpret international documentation

requirements along with worldwide travel codes and terminology. Includes research and utilization of information on the Internet. (3 contact hours)

#### **LSC-133 Client Communications (2)**

This course is designed to emphasize the importance of verbal, nonverbal and written modes of communication in industry. Emphasis will be placed on written business correspondence, professional selling skills, problem solving, and developing a positive customer service attitude. (2 contact hours)

#### **LSC-140 Airline Computing—Sabre (3)**

Provides intensive instruction in the airline computer reservation system. Through a simulation system, students learn to create airline schedule availability and flight status displays; the functions necessary to sell the flight space, and how to build a basic passenger name record; assign seats; use client profiles; work queues; modify data and itineraries; and related techniques. (4 contact hours)

#### **LSC-141 Airline Computing—Apollo (3)**

Provides intensive instruction in the airline computer reservation system. Through a simulation system, students learn to create airline schedule availability and flight status displays; the functions necessary to sell the flight space and how to build a basic passenger name record; assign seats; use client profiles; work queues; modify data and itineraries; and related techniques. (4 contact hours)

#### **LSC-210 Travel Business Entrepreneurship (2)**

This course is designed to provide the skills and knowledge needed to succeed as an entrepreneur in the travel industry. Topics include best business practices, technology, challenges for start-ups, social media, marketing, legal, accounting, strategic planning, budgeting and special promotions. (2 contact hours)

#### **LSC-214 Destination Planning—North America (3)**

Instruction in domestic travel will include the United States, Canada, Mexico, Bermuda, and the Caribbean islands. Points of interest; location of major cities, ports, airports, tourist attractions, air, land and sea companies and travel resources will be emphasized. It encourages students to develop research skills, using print, electronic, and human resources to help meet client wants and needs. (3 contact hours)

#### **LSC-225 Cruising: A-Z (2)**

Provides an overview of the cruise industry, including cruise companies, cruise geography, ships, passenger profiles, brochures, promotion, and selling. (2 contact hours)

**LSC-226 Travel/Tourism Special Topics (1)**

This course covers different travel-tourism topics based on emerging industry trends and student needs. The topics covered in a particular semester course will be identified by section number in the college schedule of classes. A syllabus documenting the class description, specific topics, and student learning outcomes will be available as each special topics section is added to the schedule. This course may be taken three times for credit as long as different topics are selected. (1 contact hour)

**LSC-234 Internship - Travel (3)**

Planned and supervised career field experience relating to the student's degree program. Student will intern in travel-tourism sites or related agencies. (15 contact hours)

Prerequisite: Consent of instructor or program coordinator  
Corequisite: LSC-238

**LSC-238 Seminar - Travel (1)**

Sharing, evaluating and integrating internship experiences are involved in this seminar. (1 contact hour)

Prerequisite: Consent of instructor or program coordinator  
Corequisite: LSC-234

**MAS—Therapeutic Massage****MAS-101 Introduction to Massage (1)**

Students are given an introduction to therapeutic massage. Students are exposed to terminology, anatomy and physiology, safety and equipment, scope of practice, and strokes. Students have hands-on experience with massage therapy and will practice on each other. (1.5 contact hours)

**MAS-109 Pathology for Massage Therapy (3)**

This course will explore how pathologies affect the human body and the effects of massage techniques on abnormal conditions. Students will learn the impact of medications on health and disease, including prescribed and over-the-counter medications. Students will discuss the importance of scientific research as it relates to therapy. (3 contact hours)

Prerequisite: BIO-115, MAS-101, and MRT-110 each with a minimum grade of "C"

**MAS-110 Basic Swedish Massage (3)**

Students will learn the benefits of touch and a Swedish massage from head to toe. Students will begin the process of client information collection. Students will conduct a case study. (4 contact hours)

Prerequisite: BIO-115, MAS-101, and MRT-110 each with a minimum grade of "C"

**MAS-112 Assessment and Sports Massage (4)**

Students will learn the basis of exercise physiology, joint mobilization, pre-and post-event, maintenance massage, stretches and care of frequent sports injuries. Thermotherapy and heat-related injuries for the professional and amateur athlete will be discussed. (5 contact hours)

Prerequisite: MAS-110 and PEH-160

**MAS-114 Massage Modalities (4)**

Students will be introduced to several specialties in massage such as chair massage, pregnancy/infant massage, stone massage, Oriental approach to massage, and energy work. Introduction to such modalities as cranio-sacral, orthobionomy and reflexology will also occur. (5 contact hours)

Prerequisite: MAS-110

**MAS-118 Business, Ethics and Documentation (4)**

Students explore aspects of developing and maintaining a successful therapeutic massage practice. Ethical issues related to massage are discussed, and a code of ethics is developed. Standards of practice are discussed. Documentation skills are discussed and formulated. (4 contact hours)

Prerequisite: MAS-101

**MAS-120 Massage Lab Practicum (3)**

Students are supervised in a clinic-style setting. This course provides an opportunity for students to apply the principles, techniques and procedures practiced in professional massage therapy. Students demonstrate proper client-therapist communication skills (including chart documentation), draping techniques and sanitary precautions. Fee is required. (9 contact hours)

Prerequisite: MAS-110, MAS-112 and MAS-114  
Corequisite: MAS-118

**MDT—Mechanical Design and Drafting****MDT-100 Introduction to Computer Graphics (2)**

Surveys computer graphics hardware and software fundamentals. Develops basic concepts and skills of computer representation of graphical information. An introduction to the basic usage of computer-aided drafting, animation, desktop publishing, business graphics, and Web pages. Emphasize graphical areas relating specific areas of study and complete a term project. Fee is required. (4 contact hours)

**MDT-101 Introduction to Drafting (3)**

Includes theory, technical skills, industrial applications, practices of technical sketching and use of computer-aided

drafting, geometric construction, multiview drawings, basic dimensioning, sectional views, and auxiliary views, pictorials, and developments. Fee is required. (5 contact hours)

#### **MDT-103 Orientation to MDT Careers (1)**

This course is an introduction to careers in the field of mechanical design technology. The course provides a survey of the mechanical design profession. Students will be required to research employment skills and knowledge, field-specific definitions, professional certifications and associations, current issues in the field, and salaries. A computer self-assessment survey and student plan of study will be created by the students. (1 contact hour)

#### **MDT-106 Mechanical Assemblies (2)**

The theory, technical skills, industrial applications, and practices of mechanical assembly and pictorial drawing are presented. Bill of materials, subassemblies, standard parts, fasteners, dimensioning, and CAD techniques are covered. Fee is required. (3 contact hours)

Prerequisite: MDT-101 or consent of instructor Corequisite: MDT-110

#### **MDT-110 Mechanical Detailing (3)**

The design considerations and industrial applications of castings, forgings, stampings, and machined components are emphasized. Fit specifications and geometric dimensioning and tolerancing are introduced. Fee is required. (5 contact hours)

Prerequisite: MDT 101 or consent of instructor Corequisite: MDT-106

#### **MDT-115 Applied GDT (2)**

An introduction to the latest revision of the ASME Y14.5M standard for geometric dimensioning and tolerancing. Students will learn to read and apply geometric tolerancing to mechanical detail drawings. Emphasizes applying geometric dimensioning and tolerancing to drawings of actual mechanical parts. Fee is required. (3 contact hours)

Prerequisite: MDT-101 or consent of instructor

#### **MDT-120 Fundamentals of 2D Design (3)**

This course introduces students to the basics of 2-D design concepts used for the production of graphic communications. Emphasis is placed on learning the fundamental tools, theories and principles of design. Students will design layouts for production from electronic formats for outputting to a variety of print medias. Primary software program used is Adobe Illustrator. Fee is required. (5 contact hours)

#### **MDT-125 Intro to Additive Manufacturing (3)**

This course will introduce the student to the history, technology, and applications of additive manufacturing,

including rapid prototyping and 3-D printing. Topics will include the additive manufacturing processes and materials, and industrial applications of the additive manufacturing technology. (3 contact hours)

#### **MDT-145 Intro to Computer Aided Drafting (3)**

Study theory and practice of current use of computer aided drafting and design. Includes hardware configuration, computer math and software capabilities. Generate 2-D and 3-D orthographic drawings as well as pictorial techniques, including cursor manipulation, digitizing, direct display interaction, editing, storage and retrieval, rotation, zooming, panning, scaling, mirroring, printing, and plotting. Fee is required. (5 contact hours)

#### **MDT-160 Introduction to 3D Modeling (3)**

Covers the basics of 3-D wire frames, surface modeling, solids modeling, and rendering. Students learn the concepts and techniques required to construct 3-D objects, including 3-D coordinates, spherical coordinates, and surface and solids modeling. User coordinate systems and multiple viewports also are discussed. Students construct a variety of objects using these techniques. Objects are rendered to slides and hard copy. Models produced with rapid prototyping equipment also will be studied. Fee is required. (5 contact hours)

Prerequisite: MDT-145

#### **MDT-190 Construction Blueprint Reading (2)**

Introduces the use of blueprints and construction documents as used in the building industry. The course covers residential, light commercial and multistory construction. Principles of reading working documents such as plans, elevations, sections, and details related to the following: architectural, civil, electrical, heating, ventilation and air conditioning, plumbing, structural plans, and specifications. The course is helpful for apprentices, students of architecture, estimators, contractors, real estate, and employees who work in the construction industry. Fee is required. (3 contact hours)

#### **MDT-199 Special Topics (3)**

This course covers different mechanical design topics based on emerging industry trends and student needs. Students work with instructors individually or in small groups to develop special projects designed to support student growth. The topics covered in a particular semester course will be identified by section number in the college schedule of classes. A syllabus documenting the class description, specific topics, and the student learning outcomes will be available as each special topics section is added to the schedule. Students may take this course three times for credit, but may not repeat any one particular topic. (4 contact hours)

**MDT-201 Manufacturing and Design (3)**

Introduces the concepts of engineering design and the role manufacturing plays in the design of machines and mechanisms. Students investigate different production methods, including molding, forming, metal cutting, and additive (3-D printing) operations, and how they affect design considerations. Students explore how manufacturing impacts the product design process, as well as how to make rational design and manufacturing choices. (3 contact hours)

**MDT-205 Machine Elements (2)**

Machine elements and basic mechanisms are covered. Elements to be studied specifically are gears, cams, bearings, belt and chain drives, splines, and linkages. The focus will be on the calculation, selection and application of these elements in mechanical design. Fee is required. (4 contact hours)

Prerequisite: MDT-106, MDT-110, MDT-145 or consent of instructor

**MDT-210 Statics and Strength of Materials (3)**

This course introduces statics and the study of internal stresses in machine members, involving tensile tests and lab reports. Calculations on equilibrium of loaded beams, columns, the use of standard reference tables, and moments of inertia are studied. Fee is required. (3 contact hours)

Prerequisite: MDT-205, MTH-142 or MTH-150, PHY 150, or consent of instructor

**MDT-213 Plant Engineering Drafting (2)**

Study piping layouts, symbols and detailing, electrical drafting of wiring diagrams, welding drafting, structural detailing and materials handling. Cover CAD applications to these techniques in detail. Fee is required. (4 contact hours)

Prerequisite: MDT-145

**MDT-245 Applied CAD (3)**

This course covers the application of CAD hardware and software in mechanical design. Students will generate 2-D orthographic drawings, including dimensioning styles and techniques and file management. Students will also create symbol libraries, attributes with symbols, merge parts into assemblies and create tables from attribute extractions. Both theoretical and practical applications are stressed. Fee is required. (5 contact hours)

Prerequisite: MDT-145 or consent of instructor

**MDT-255 Machine Design (3)**

This course presents topics including design of machines, assembly drawings, bearings, machine elements, shaft design, statics, material selection, layouts, calculations and

cost estimation. CAD applications to machine design are studied in detail. Fee is required. (5 contact hours)

Prerequisite: MDT-205 or consent of instructor Corequisite: MDT-210

**MDT-260 CAD Management (3)**

Study the application of operating systems, system management, user management, networking and integration as it relates to the CAD field. Each student will explore the features, commands, components, drives, files, and procedures, as well as the use of system and network management procedures and software in the Novell, Ethernet, and Windows NT 95/98, Windows 2000 environments. Fee is required. (5 contact hours)

Prerequisite: MDT-145 or consent of instructor

**MDT-265 CAD Programming Techniques (3)**

CAD programming techniques to cover Lisp, C and/or Visual BASIC, macro writing, menu and icon construction, libraries, database and third-party software. The student, in consultation with staff, will select and solve a design problem using the CAD programming techniques in mechanical design, plant engineering, structural, tool design, systems process design, material handling, or other mutually agreed upon project. Fee is required. (5 contact hours)

Prerequisite: MDT-145 or consent of instructor

**MDT-275 Introduction to Animation (3)**

Covers the basics of 2-D and 3-D animation and rendering. Students learn the concepts and techniques required to construct 2-D and 3-D objects. These include simple modeling, 3-D shaping, lofting, animating, keyframing, 3-D editing, materials mapping, and simple morphing. Students design projects using these techniques with the use of tools and inks, color palettes, 2-D and 3-D CAD geometry, maps and rendering processes. Fee is required. (5 contact hours)

Corequisite: MDT-100 or consent of instructor

**MDT-277 Computer Character Animation (3)**

This course covers applied character animation. Students learn the concepts and techniques required to construct biped and physique techniques. These include skeletal animation for two-legged characters. Physique modifiers applied to models to achieve realistic skinning deformations to animated characters are also studied. Fee is required. (5 contact hours)

Prerequisite: MDT-275 or consent of instructor

**MDT-278 Design Visualization (3)**

Students will be introduced to the creation and display of 3-D computer scenes of architectural and industrial objects. Students will learn how to import and adjust previously created 3-D geometry from a variety of computer-aided

drafting software. Material properties, surfaces, and lights will be added to develop photo-realistic scenes. Camera animations including "walk-thrus" or "fly-bys" will be discussed and developed. Course topics include 3-D geometry, rendering, lighting (basic and advanced), photometric lights, radiosity, material creation, editing and mapping, ray-tracing, and camera effects. Build and animate simple hierarchies and produce basic time, length, key frame animation will also be studied. A student final project will be completed at the end of the course. Fee is required. (4 contact hours)

### **MDT-279 Storyboarding (3)**

Covers basic to advanced storyboarding. Students will learn how to traditionally draw out storyboard projects using discussed techniques and styles; build a storyboard with drama, mood and excitement; develop their own style; and incorporate storyboarding into computer animation. Cinematic techniques, terminology, camera angles for the most drama, scene and shot development, character development, character expressions, dramatic character positioning and movement, coloring, and scene environment also are covered, as well as a basic understanding of the entire film production process. (5 contact hours)

### **MDT-281 Introduction to Flash (3)**

This course covers the basics of creating animated, vector-based web content using Macromedia Flash. Students will learn how to create interactive vector graphics and animations. Fee is required. (5 contact hours)

### **MDT-282 Advanced Flash for 3D Animation (3)**

This course covers advanced concepts of integrating 3-D models and animations into Macromedia Flash. Students will learn how to optimize and import 3DS MAX files into Flash. (5 contact hours)

Prerequisite: MDT-281 or consent of instructor

### **MDT-283 Character Modeling (3)**

Provides a basic understanding required for designing, building and mapping 3-D computer characters. The fundamental concepts of character design are explored for producing high-resolution and low-polygon count models. Students will learn a variety of modeling techniques necessary to build and properly map models. (5 contact hours)

Prerequisite: MDT-275 Corequisite: MDT-277 or consent of instructor

### **MDT-284 Dynamic Simulations (3)**

Covers the simulation and physical behaviors of complex models in a 3-D environment. Students learn the applied concepts and techniques required for creating realistic physics-based animations. (5 contact hours)

Prerequisite: MDT-275

### **MDT-285 3D Parametric Modeling (3)**

This course offers a comprehensive solution to enhance design projects by incorporating 3-D parametric technology. The course is designed for students already accomplished at creating 3-D models using native surface/solid modelers. It is intended to help students advance beyond the level of basic parametric design modeling. Fee is required. (5 contact hours)

### **MDT-287 Game Design (3)**

This course will introduce the student to computer game design. All manner and type of computer games will be discussed including the history and future of computer games. Students will learn to analyze, evaluate and review computer games. Game design theory and concepts will be introduced and students will develop ideas for games. Marketing and presentation issues also will be investigated. Fee is required. (4 contact hours)

### **MDT-288 Applied 3D Parametric Modeling (3)**

Introduces the use of local and global parameters in the area of 3-D parametric modeling. Students will learn to control parts with design variables, 3-D constraints, variable dimensions, table-driven parts, mathematical operators, and adaptive techniques. Rapid prototyping of models will be incorporated. Fee is required. (5 contact hours)

Prerequisite: MDT-285 or consent of instructor

### **MDT-289 3D Parametric Assemblies (2)**

Introduces the concepts and design techniques of 3-D parametric mechanical assemblies. Topics include assembly constraints, global parameter usage in assembly modeling, interference checking, animation/kinematic analysis, and parametric control of assembly components. Orthographic (2-D) drawings will be created from 3-D assembly and part models. Rapid prototyping will be incorporated. (3 contact hours)

Prerequisite: MDT-288 or consent of instructor

### **MDT-290 Introduction to Revit Architecture (3)**

This course covers the application of production architectural/construction drawings using CAD. Floor plans, sectional views, details, schedules, and elevations used for residential and light commercial construction are studied. Fee is required. (5 contact hours)

Prerequisite: MDT-145, MDT-190 or consent of instructor

### **MDT-291 Revit Architecture II (3)**

This course covers the applied application of production drawings for light to medium industrial construction using CAD. Fee is required. (5 contact hours)

Prerequisite: MDT-290 or consent of instructor

**MDT-292 Revit Bldg Design & Construction (3)**

This course covers the applied application of drawing of commercial and light industrial construction utilizing building information model (BIM) technologies. Students will explore methods of fast tracking the design of a 2-D/3-D architectural building model, developing the building model with parametric components, and detailed architectural plans, schedules and documentation. This course is designed to introduce students to concepts, practices, standards, and drafting techniques needed in creating a BIM project from concept through construction documents. Students will learn both the content and skills necessary to become a proficient drafter in the field of architecture and understand the BIM process. (5 contact hours)

Prerequisite: MDT-290

**MDT-293 Game Design Elements (3)**

This course surveys the design elements used in game design. Emphasis is placed on the creation of digital maps, which could be applied within a game or virtual set. Applications include digital content such as environmental backgrounds, buildings, characters and props. Within a collaborative setting, students will research and design the digital content as used in a professional studio. This course is intended for students to enhance their Photoshop skills, material creation and mapping skills as they apply to working with characters in 3-D environments. (5 contact hours)

Prerequisite: MDT-100, MDT-275, and MDT-287

**MIS—Management Information Systems****MIS-105 Programming Principles (3)**

This course serves as a foundational course for students in programming and other computer courses, and is recommended for all students and professionals pursuing careers in information technology. Emphasis is placed on problem solving, logic, and control of the computer through use of a high-level programming language. Key concepts include variables and data types, loops, decisions, functions, and arrays. Students enrolling in MIS-105 should already demonstrate a proficiency in file management. Fee is required. (4 contact hours)

**MIS-111 Internet Technologies (3)**

This course prepares students to work effectively in today's business environment. This course is designed for students who are expecting to enter the information technology field, or for non-technical professionals who are pursuing related careers such as business, sales and marketing, and multimedia communications on the web. A wide range of material is covered about the internet, from using the internet to demonstrating how the internet works, using various internet protocols, social media on the internet, the internet infrastructure, security, creating a website,

databases as related to search engines, and project management fundamentals. It not only introduces a variety of concepts, but also presents an in-depth coverage of the most significant aspects of the internet. In addition to explaining concepts, the course uses a multitude of real world case studies from a professional's standpoint. The course includes a high stakes, industry-recognized certification exam from CIW (Certified Internet Web Professional) titled Internet Business Associate exam #1D0-61A. Students who successfully pass this exam, which will be administered in the classroom, will have a certification credential to add to their resume. Fee is required. (4 contact hours)

**MIS-120 RPG Programming I (3)**

This course introduces the elements of RPG programming and program documentation using RPG IV. The basics of the RPG language, the production of reports, and the usage of files are emphasized. Fee is required. (4 contact hours)

Prerequisite: CSC-140 or MIS-105

**MIS-121 Networking for Business (3)**

This course is designed to provide a comprehensive understanding of networking technologies, concepts and terminology specifically used within the business environment. A variety of network equipment will be examined, including hubs, routers, switches, and NICs. LAN architectures will also be discussed. Students will also learn how to install, manage, maintain and secure various types of web servers. Topics include TCP/IP, IPv6, OSI communications model, network design, network cabling, and network management and services. Fee is required. (4 contact hours)

Prerequisite: MIS-111

**MIS-123 Database Design (3)**

This course is designed to teach the principles of database design. It will focus on the study of relational database design and data modeling, and will provide students with opportunities to gain experience in table normalization, setting up entity relationships, creating entity-relationship diagrams (ERDs) in accordance with industry standards, and constructing databases from ERDs using database management systems software. Popular database management system and modeling software will be utilized in class projects and other hands-on assignments and demonstrations. Students should be aware that there are both theoretical and practical components to this course. Fee is required. (4 contact hours)

**MIS-124 iOS Programming I (3)**

This course is an introduction to programming iOS applications. Students will use Objective-C and the Xcode software development tool from Apple to create basic

applications using the iOS SDK, Cocoa Touch and the UIKit framework. The model-view-controller design pattern and object modeling will be introduced and used throughout the course. (4 contact hours)

Prerequisite: CSC-140 or MIS-154 or MIS-160 or MIS-176 with a minimum grade of "C"

### **MIS-126 PHP Programming I (3)**

This course is designed as an introduction to PHP programming. The course will explore the procedural model of PHP with in-depth focus of language constructs and usage. Active knowledge in web technologies will be used and students will be introduced to the object model of PHP programming. Fee is required. (4 contact hours)

Prerequisite: CSC-140 or MIS-105 and MIS-141 all with a minimum grade of "C"

### **MIS-139 VB.NET Programming I (3)**

This course is an introduction to the VB.NET computer programming language and its use in solving problems from business or other disciplines. Topics include problem-solving, algorithm design and implementation, user-interface design, visual-event-driven, and object-oriented programming, along with testing and debugging methodologies. Programming language elements introduced will include scoped and typed variables, decision and repetition structures, arithmetic and string functions, user-defined procedures, arrays, structured types, and file processing. Fee is required. (4 contact hours)

Prerequisite: CSC-140 or MIS-105 with a minimum grade of "C" or consent of instructor

### **MIS-141 Website Development: HTML & CSS (3)**

This course introduces the student to web authoring and publishing using Hypertext Markup Language (HTML) and Cascading Style Sheets. In this course, the student will learn how to plan design, create and test web pages. The HTML structure and the elements and attributes supported in HTML will be covered. Topics include inserting text, including images, constructing tables and lists, connecting web pages using hyperlinks, creating forms, incorporating multimedia, and using style sheets to create layouts and format content. The student will also learn how to publish a website using a FTP client. Fee is required. (4 contact hours)

### **MIS-142 Android Programming I (3)**

This course is an introduction to programming Android applications. Students will use Java and the Eclipse software developmental tool to create basic mobile applications using the Android SDK. Topics will include: creating activities, linking activities using Intents and designing user interfaces using a wide variety of views. (4 contact hours)

Prerequisite: MIS-176 with a minimum grade of "C"

### **MIS-146 Operating Systems (3)**

This course introduces students to various operating systems used for personal and business applications. The current Microsoft Windows Operating System is covered comprehensively. Windows OS commands, MAC OS, IBM OS, and Open Source OS (such as Linux) are highlighted. Security issues and a brief overview of TCP/IP are also included. Fee is required. (4 contact hours)

Prerequisite: IMS-101 or IMS-115 or ELT-112

### **MIS-154 C# Programming I (3)**

This course is designed to teach introductory topics in PC application development by using both a conceptual and hands-on approach. This course will focus on the study of the C# programming language and will provide students with opportunities to gain experience using C# to create both console applications and event-driven GUI applications. This is an applications programming class for students with at least one semester of programming experience. The C# programming language will be examined, as will the Visual Studio.NET development environment. Popular development software will be utilized in class projects and other hands-on assignments and demonstrations. Students should be aware and comfortable understanding there are both theoretical and practical components to this course. Fee is required. (4 contact hours)

Prerequisite: CSC-140 or MIS-105 with a minimum grade of "C"

### **MIS-160 C++ Programming (3)**

This course introduces the C++ programming language to students already familiar with basic programming principles. Fundamentals are illustrated through the coding and execution of programs. Problem-solving and algorithm development are emphasized in program design through procedural, structured, and object-oriented programming techniques. Topics include basic variable types, arithmetic and logical expressions, control structures, classes, objects, functions, arrays, strings, simple inheritance, and sequential files. Fee is required. (4 contact hours)

### **MIS-176 Java Programming I (3)**

This course introduces the Java programming language to students already familiar with basic programming principles. Program design using structured, top-down, and object-oriented programming approaches within the Java technology environment is emphasized. Topics include basic variable types, arithmetic and logical expressions, control structure, classes, objects, methods, arrays, strings, simple inheritance, and sequential file processing. Fee is required. (4 contact hours)

Prerequisite: CSC-140 or MIS-105 with a minimum grade of "C"

**MIS-197 E-Commerce Development (3)**

This course provides an introduction to the development of an e-business by using both a conceptual and hands-on approach. This approach is used to allow for the acquisition of necessary business and technological skills before designing and building web applications. Popular development software will be utilized in class projects and other hands-on assignments and demonstrations. Fee is required. (4 contact hours)

Prerequisite: IMS-101 or consent of instructor

**MIS-199 Special Short Topics in Technology (1)**

This course covers different technology topics based on emerging technological advances. The topics to be covered during a particular semester will be identified with narrative by section number in the college schedule of classes. A syllabus documenting the specific topics, description, objectives, and information about prerequisite skills for the course will be available as each section is added to the schedule. This course may be taken up to three times for credit as long as different topics are selected. Fee is required. (1 contact hour)

**MIS-200 Special Topics in Technology (3)**

This course covers different technology topics based on emerging technological advances. The topics to be covered during a particular semester will be identified with narrative by section number in the college schedule of classes. A syllabus documenting the specific topics, description, objectives, and information about prerequisite skills for the course will be available as each section is added to the schedule. This course may be taken up to three times for credit as long as different topics are selected. Fee is required. (4 contact hours)

**MIS-210 Project Management (3)**

This course is designed for students who are expecting to enter the information technology field, or for non-technical professionals who are pursuing related careers in business, sales or marketing. Students in this course use case studies to enhance their ability to function as project leaders. While exploring the project life cycle, they gain experience in budgeting and timeline management. Students use software to design project schedules using tools such as bar charts, program evaluation review technique and critical path method, and produce project plans to apply to case studies. Students are expected to have computer application experience (for example the Microsoft Office Suite), good file management skills and some understanding of business concepts. Fee is required. (4 contact hours)

**MIS-220 RPG Programming II (3)**

This course continues the development of skill in the use of RPG IV. Interactive applications, tables, arrays, and

structured coding techniques are used to write, compile, and run programs. Advanced topics such as procedures, subfiles, modular programming, and APIs provide the foundation for moving from older RPG environments to the modern RPG IV language. Fee is required. (4 contact hours)

Prerequisite: MIS-120

**MIS-224 iOS Programming II (3)**

This course is an extension of iOS Programming I. Students will be introduced to techniques to incorporate maps, location services, and the accelerometer in their applications. More advanced user interface elements including SplitView, TabBar, DynamicViews, scrolling views, and screen rotation will be covered. Other topics that will be presented include application preferences, drawing and animation, video playback, and creation of universal apps (for iPad and other Apple devices). (4 contact hours)

Prerequisite: MIS-123 and MIS-124 both with a minimum grade of "C"

**MIS-226 PHP Programming II (3)**

This course is designed as an extension of MIS-126 providing greater in-depth experience with PHP programming. The course will build upon the skills developed using platform. Open Source topics and concepts also will be covered. MIS-111 is recommended but not required. Fee is required. (4 contact hours)

Prerequisite: MIS-126 with a minimum grade of "C" or consent of instructor

**MIS-239 VB.NET Programming II (3)**

This course introduces the student to use of the Visual Basic.NET programming language to solve problems from business and other disciplines. Students will be introduced to software design and development using visual, event-driven, procedural, structured, object-oriented, and n-tier architecture techniques. Topics will include coverage of multi-form applications, arrays, database processing, object serialization, standard collections, structured exception handling, and creation of reusable components with classes. Fee is required. (4 contact hours)

Prerequisite: MIS-139 with a minimum grade of "C" or consent of instructor Corequisite: Registration or credit in MIS-123

**MIS-241 Adv. Website Dev: Javascript & jQuery (3)**

This course introduces JavaScript and jQuery libraries to students already familiar with HTML and cascading style sheets for the purpose of building interactive websites. Using a hands-on approach, students will analyze problems, develop solutions, and debug and test those solutions. Topics include basic data types, literals, variables, operators, control structures, functions, arrays, browser objects, document objects, event handlers, regular

expressions, dynamic content, and cookies. Fee is required. (4 contact hours)

Prerequisite: CSC-140 or MIS-105 and MIS-141 all with a minimum grade of "C"

### **MIS-242 Android Programming II (3)**

This course is an extension of Android Programming I. Students will create data-driven applications and will be introduced to techniques to incorporate maps, location-based and geocoding services, sending and receiving messages (SMS and email), and content providers. Capabilities for enhancing user interfaces with webviews, still images, audio animation, and Flash will be covered. Other topics presented will include user preferences, creation of Android services, and publishing an Android app. (4 contact hours)

Prerequisite: MIS-123 and MIS-142 both with a minimum grade of "C"

### **MIS-251 ColdFusion Programming (3)**

This course is designed to provide students with a comprehensive understanding of ColdFusion for the purpose of developing dynamic, data-driven websites. Using a hands-on approach, students also will develop web applications using server-side technologies. Topics include ColdFusion variables and logic, form processing and validation, database manipulation, exception handling, cookies, and sessions. Fee is required. (4 contact hours)

Prerequisite: MIS-123 and MIS-241

### **MIS-254 C# Programming II (3)**

This course is designed to teach intermediate-level topics in PC application development by using both a conceptual and hands-on approach. This course will focus on the continued study of the C# programming language and will provide students with opportunities to gain experience using C# to create both console applications and event-driven GUI applications using object oriented techniques. This is an applications programming class for students with at least one semester of programming experience in the C# language. Popular development software will be utilized in class projects and other hands-on assignments and demonstrations. Students should be aware and comfortable understanding there are both theoretical and practical components to this course. Fee is required. (4 contact hours)

Prerequisite: MIS-154 with a minimum grade of "C"

### **MIS-259 Flash ActionScript (3)**

This course provides students with a comprehensive understanding of ActionScript, an object-oriented programming language of Macromedia Flash. Using a hands-on approach, students will develop interactive interfaces, animations, and data-driven applications. Topics include variables and properties, functions, methods, event

handling, arrays, objects, core and user-defined classes, components, managing data, and multimedia. Fee is required. (4 contact hours)

Prerequisite: MIS-123 and MIS-241

### **MIS-261 C++ Programming II (3)**

This course is an intermediate study of the C++ programming language for students already familiar with fundamental C++ topics. Concepts of object-oriented programming (OOP) design are emphasized. Topics include the specification of classes and creation of objects using data abstraction, levels of inheritance, polymorphism, using variables and arrays with pointers, dynamic memory allocation, binary file I/O, exceptions, templates, basic database concepts, and the Standard Template Library. Fee is required. (4 contact hours)

Prerequisite: MIS-160 or CSC-240 with a minimum grade of "C"

### **MIS-264 C++ Software Development (3)**

This course is an advanced study in software development for students already skilled with the C++ programming language. Using the Visual C++.NET environment to design and implement Windows-based applications is emphasized. Topics will include a graphical user interface with controls, event handling, document/view architecture, exceptions, database concepts, Microsoft foundation classes (MFC) and managed .NET frameworks and an introduction to unmanaged and managed code interoperability. Fee is required. (4 contact hours)

Prerequisite: MIS-123 and MIS-261 both with a minimum grade of "C"

### **MIS-276 Java Programming II (3)**

This course is an intermediate study of the Java programming language. Concepts of object-oriented program design are emphasized. Topics included are classes and inheritance, graphical user interface and event handling with applications and applets, basic graphics, exceptions, multithreading, collection classes, serialized I/O, record processing, basic database concepts, and networking. Fee is required. (4 contact hours)

Prerequisite: MIS-176 with a minimum grade of "C"

### **MIS-283 Java Web Applications (3)**

This course presents advanced topics in the development of Java Web components. The focus of study is on Java technology and models for servlets and JavaServer pages (JS) used to construct dynamic web applications and includes topics on web containers, session management, expressions language, standard actions, standard and custom tags, deployment, security issues, and design patterns. This course will include a comprehensive final project. Fee is required. (4 contact hours)

Prerequisite: MIS-276 with a minimum grade of "C"

### **MIS-285 ASP.NET Web Applications (3)**

Students will learn to create ASP.NET web applications using their choice of C# or VB.NET. Full application development cycle issues will be addressed, including design, implementation, online user assistance, testing, and deployment. Topics will include XML web services, ADO.NET, globalization, security and authentication, optimization, structured exception handling, component creation, and session state management. Fee is required. (4 contact hours)

Prerequisite: MIS-123 and MIS-239 or MIS-254 all with a minimum grade of "C"

### **MIS-286 Advanced Java Development (3)**

This course is an advanced study in software development for students already skilled with using the Java programming language. The design of both client-side and server-side applications is emphasized. Topics include design patterns, networking, relational database concepts, servlets, Remote Method Invocations, Java Bean development, security, graphics, and multimedia. Fee is required. (4 contact hours)

Prerequisite: MIS-276 with a minimum grade of "C"

### **MIS-289 Advanced .NET Development (3)**

Students will learn to create complete Windows desktop applications using their choice of C# or VB.NET. Full software development cycle issues will be addressed, including design, implementation, help system integration, testing, and deployment. Topics will include the .NET Framework, Structured Exception Handling, advanced Object-Oriented features (such as inheritance, polymorphism, patterns, etc.), ADO.NET, Crystal Reports, XML and Serialization, Globalization, Application Security, Remoting, and Web Services. Fee is required. (4 contact hours)

Prerequisite: MIS-123 and MIS-239 or MIS-254 all with a minimum grade of "C"

### **MIS-291 Systems Analysis and Design (3)**

This course teaches students how to apply object-oriented modeling techniques, tools, and methodologies to define a system specification. Emphasis will be on following the Unified Process (UP) to analyze a real-world business problem, evaluate a variety of options, and design a solution within stated constraints. The focus will be on the earlier phases of the software development lifecycle and the application of the Unified Modeling Language (UML), Use Cases and Design Patterns. Students will apply what they are learning by actively participating in a semester-long project to design a solution to an identified business problem. Fee is required. (4 contact hours)

Prerequisite: MIS-123 with a minimum grade of "C"

### **MIS-292 SQL/Database Applications (3)**

This course is designed to teach the use of Structured Query Language (SQL) to construct, modify, and maintain relational databases. Emphasis is on SQL and its uses in business applications. hierarchical, network and relational models are covered. Additional topics include data redundancy, data independence, security, and data integrity. Fee is required. (4 contact hours)

Prerequisite: MIS-123 with a minimum grade of "C"

### **MIS-294 Oracle Database Management (3)**

This course is an introduction to the Oracle database management system. Students will learn how to perform basic administrative tasks such as creating users and granting privileges as well as creating and executing scripts. Transaction management and concurrency control will also be addressed. Students will learn proper use of Oracle's native data types and built-in functions and will use PL/SQL to code triggers, functions, and stored procedures. (4 contact hours)

Prerequisite: CSC-140 or MIS-105 and MIS-292 all with a minimum grade of "C"

### **MIS-295 Internship (3)**

This course emphasizes planned and supervised career field experience relating to the occupational program of the student. Student works at least 15 hours a week. Topics include preparation for job search, resume and cover letter, job interviews, and professional development. Fee is required. (15 contact hours)

Prerequisite: 30 credit hours from MIS with a minimum 2.0 GPA and consent of instructor

### **MIS-297 Website Design: WordPress (3)**

This course is designed to teach students how to create data-driven websites using popular development software tools. Students develop, implement, and work with databases, database connections, web-enabled interfaces, and server-side security. User interface design principles and applications will also be examined. This is very much a technical, analytical and creative class. Students will apply what they are learning by actively participating in a semester-long project to design and develop a data-driven website. As the students develop this project throughout the semester, various web design and development practices will be examined. Fee is required. (4 contact hours)

Prerequisite: MIS-141

### **MIS-298 E-Commerce Policy and Strategy (3)**

This course is designed to provide students with a comprehensive and integrated understanding of e-commerce development from start to finish. The course will cover both technical and management concepts and will allow students to work in groups while they apply their

knowledge through hands-on exercises and case projects. Students will experience the relationship that develops between management and software engineering in a business environment as they develop an electronic commerce application. Topics include defining the entrepreneurial process, creating a business, marketing, and financial plan, recognizing the characteristics and role that e-commerce plays in the global market, working with human resources, and developing an e-commerce website. (4 contact hours)

Prerequisite: CSC-140 or MIS-105, and MIS-197 and MIS-297 all with a minimum grade of "C"

## MOA—Medical Assistant

### MOA-115 Clinical Laboratory Procedures (4)

This lecture/laboratory course emphasizes the performance of waived tests as approved by the Clinical Laboratory Improvement Amendments. Waived testing methods include point of care testing in urinalysis, hematology, chemistry, immunology and microbiology. Topics in specimen processing, record keeping, CPT coding, laboratory infection control, quality assessment, quality control and reference ranges of tests performed also are considered. (6 contact hours)

Prerequisite: MOA-130, MOA-140, MRT-110, IMS-115, COM-101, MTH-109, BIO-115 or BIO-180 and BIO-181 all with a minimum grade of "C" Corequisite: Registration or credit in MOA-142

### MOA-130 Law and Ethics in Healthcare (2)

This course is designed to provide learners with a foundation in medical law and ethics. Topics include key points of law, interpretation of statutes, legal and regulatory guidelines that impact health care, as well as ethical dilemmas. Emphasis is given to the medical office professional's interaction with the legal profession. In addition to understanding patient rights, employee rights are explored. (2 contact hours)

Prerequisite: MRT-110, BIO-115 or BIO-180 and BIO-181, IMS-115, COM-101 all with a minimum grade of "C"

### MOA-140 Medical Office Administration (3)

This course introduces the student to the role of the medical assistant. A medical assistant is an allied health professional who functions as a member of the multidisciplinary health care team. This course focuses on the administrative and general duties associated with medical assisting in an ambulatory care setting. Topics include administrative and general duties, safety practices, communication skills and techniques, patient reception, appointment scheduling, basic bookkeeping procedures, operational functions and the preparation and maintenance of medical records. Professionalism, ethical principles,

reasoning and issues pertaining to confidentiality are emphasized. Fee is required. (4 contact hours)

Prerequisite: Take MRT-110, BIO-115 or BIO-180 and BIO-181, IMS-115, COM-101 all with a minimum grade of "C"

### MOA-142 Medical Office Finance Systems (3)

This course surveys the various financial systems used in the medical office. An overview of banking, billing, coding, insurance procedures, and management of medical office finances is included. (4 contact hours)

Prerequisite: MRT-110, BIO-115 or BIO-180 and BIO-181, IMS-115, COM-101, MTH-109 all with a minimum grade of "C"

### MOA-144 Pharmacology-Principles/Applications (5)

This course follows a lecture/laboratory format. Instruction is provided in the basic concepts of pharmacology in medical assisting. Topics include the general aspects of pharmacology, legal and ethical issues in pharmacology, the mathematical knowledge necessary to master the calculations of commonly-used medications, the principles and practices of medication administration, and medications related to body systems and patient education. (7 contact hours)

Prerequisite: MRT-110, BIO-115 or BIO-180 and BIO-181, IMS-115, COM-101, MTH-109, MOA-130, MOA-140 and MOA-142 all with a minimum grade of "C" Corequisite: Registration or credit in MOA-115

### MOA-147 Medical Assistant Clinic Procedures (6)

This course uses a lecture/laboratory format. This course provides the student with both the theory and practical applications of the clinical aspects of medical assisting. It is designed to provide the theoretical and practical basis for performing clinical procedures in the medical office/clinic setting. Topics include but are not limited to: patient assessment, basic psychological principles, physical examination and patient treatments, vital signs, patient education, medical emergencies and assisting the physician in medical specialty examinations and minor surgery. Students will learn the theoretical, technical and practical aspects of infection control, medical and surgical asepsis and EKG. Includes observation and performance of clinical procedures in a laboratory setting. Fee is required. (8 contact hours)

Prerequisite: MRT-110, BIO-115 or BIO-180 and BIO-181, IMS-115, COM-101, MTH-109, MOA-130, MOA-140, and MOA-142 all with a minimum grade of "C" Corequisite: Registration or credit in MOA-115 and MOA-144

### MOA-155 Medical Assistant Externship (3)

Students are assigned to clinical affiliate sites for supervised clinical experience. Emphasis is on achieving competency in entry-level skills within the context of the ambulatory care setting. Students shall not receive

compensation/payment, monetary or otherwise, for the practicum/externship experience. Fee is required. (10 contact hours)

Prerequisite: MRT-110, BIO-115 (or BIO-180 and BIO-181), IMS-115, COM-101, MTH-109, MOA-115, MOA-130, MOA-140, MOA-142, MOA-144, MOA-147, and PHB-110 all with a minimum grade of "C" Corequisite: MOA-156

#### **MOA-156 Medical Assistant Seminar (2)**

This course is designed as a capstone experience for students assigned to a medical assistant clinical rotation. Discussion topics include student reaction to supervised clinical experiences in an ambulatory care setting, professional issues, communication skills appropriate for a diverse patient population, and application of customer service skills. (1 contact hour)

Prerequisite: MRT-110, BIO-115 (or BIO-180 and BIO-181), IMS-115, COM-101, MTH-109, MOA-130, MOA-140 MOA-142, MOA-115, MOA-144, MOA-147 and PHB-110 all with a minimum grade of "C" Corequisite: MOA-155

### **MRT—Med Terminology/Health Info Tech**

#### **MRT-110 Medical Terminology (3)**

Introduces various medical terms used in the health field. Emphasis is on analysis and building of medical terms using Greek and Latin prefixes, roots and suffixes. Abbreviations, eponyms, anatomical terms, and medical vocabulary that is not based on word elements also are reviewed. Definitions, spelling and pronunciation of medical terms are stressed. (3 contact hours)

Prerequisite: RDG-091 or IEL-096 with a minimum grade of "C" or appropriate score on placement test

#### **MRT-111 Health Information Management (3)**

This course includes an orientation to health information management, the health care delivery system and legal and ethical issues applicable to health information including HIPAA requirements for privacy and security. Emphasis is placed on health data content and structure as well as techniques to assure adequate documentation of health care in acute and ambulatory settings. (5 contact hours)

#### **MRT-113 Coding Professional Practice (4)**

This course concentrates on the development and reinforcement of ICD-10-CM, ICD-10-PCS and CPT/HCPCS Level II coding skills. This course builds upon previous coding knowledge in applying advanced principles of coding using all coding systems. Students will gain experience with coding health records from a variety of settings as well as review topics related to compliance, medical necessity, encoding, diagnosis-related grouping, and ambulatory payment classifications. (6 contact hours)

Prerequisite: MRT-133 and MRT-212 both with a minimum grade of "C"

#### **MRT-114 Health Care Computer Applications (3)**

This course introduces students to computer systems in health care with emphasis placed on the electronic health record and software used in the completion of HIM processes as well as database architecture and design. In addition, students gain knowledge of health record data quality, methods to control computer security, as well as current trends and future challenges in health information exchange. (4 contact hours)

Prerequisite: MRT-125 and MRT-131 both with a minimum grade of "C" Corequisite: Registration or credit in MRT-132 and MRT-133

#### **MRT-115 HIT Professional Practice I (4)**

This course is a combination of simulated and actual clinical experiences including field trips and guest speakers. Students are introduced to clinical document integrity, ethics, accounting, and release of information in the classroom. In addition, students are assigned to health information management departments for supervised clinical experiences and application of health information management theory. Fee is required. (8 contact hours)

Prerequisite: MRT-114, MRT-132 and MRT-133 all with a minimum grade of "C"

#### **MRT-119 Insurance Reimbursement Procedures (2)**

This introductory medical insurance course provides students with the basics of filing medical insurance claims in a manual and electronic format. Emphasis is on completion of insurance forms, identification of common types of medical insurance, manual and electronic claims processing, and reimbursement follow-up. Course also focuses on accurate billing through coding, claims management and bill reconciliation processes. (3 contact hours)

Prerequisite: IMS-115 with a minimum grade of "C"

Corequisite: Registration or credit in MRT-122 or MRT-131

#### **MRT-122 Coding for Medical Billing (4)**

This course introduces the ICD-10-CM/PCS, CPT and HCPCS Level II coding systems. The focus is on understanding the significance of coding on the reimbursement process. Students must demonstrate competence in the assignment of valid diagnosis and procedure codes. (6 contact hours)

Prerequisite: MRT-110 with a minimum grade of "C"

Corequisite: Registration or credit in MRT-119 and IMS-115

#### **MRT-123 EHR and Practice Management (3)**

This course introduces students to an integrated practice management and electronic health record program,

including the use of specialized software. It covers EHR, and insurance and patient billing. Students will obtain a comprehensive picture of documenting the administrative and clinical tasks that take place during each step of the patient encounter during an office visit. It prepares students for employment in both administrative and clinical positions in a medical office. (4 contact hours)

Prerequisite: MRT-110 Corequisite: Registration or credit in MRT-119, IMS-115 and MRT-122 or MRT-131

### **MRT-125 Pathophysiology and Pharmacology (3)**

This course focuses on the description of conditions and diseases of all human body systems including etiology, signs and symptoms, methods of diagnosis, and treatment. Students will attain knowledge of basic pharmacology with emphasis on the understanding of the action of drugs such as absorption, distribution, metabolism and excretion of drugs by the body. Additional study is placed on drug classifications, the most commonly prescribed drugs and drug formulary. (5 contact hours)

Prerequisite: MRT-110 with a minimum grade of "C"

### **MRT-131 CPT/HCPCS Level II (4)**

This course introduces the CPT and HCPCS Level II (Current Procedural Technology and Healthcare Common Procedure Coding System) coding systems. The focus is on the development of skills needed for assignment of valid procedure codes. (6 contact hours)

Prerequisite: IMS-115 and MRT-110 both with a minimum grade of "C" Corequisite: Registration or credit in MRT-111 and BIO-115 or BIO-180 and BIO-181

### **MRT-132 ICD-10-CM (4)**

This course introduces the ICD-10-CM (International Classification of Diseases, Tenth Revision, Clinical Modification) diagnostic coding system. The focus is on the development of skills needed for assignment of valid diagnostic codes for inpatient and ambulatory records. (6 contact hours)

Prerequisite: MRT-131 with a minimum grade of "C" Corequisite: Registration or credit in MRT-125

### **MRT-133 ICD-10-PCS (4)**

This course introduces the ICD-10-PCS (International Classification of Diseases, Tenth Revision, Procedure Coding System) inpatient procedural coding system. The focus is on the development of skills needed for assignment of valid procedure codes for inpatient services. (6 contact hours)

Prerequisite: MRT-131 with a minimum grade of "C" Corequisite: Registration or credit in MRT-132 and MRT-212

### **MRT-140 Cancer Registry (2)**

This course provides an introduction to hospital-based and central registries, including case ascertainment and disease registry files. The course includes concepts and principles of coding, staging, and abstracting of malignant neoplasms using the International Classification of Diseases (oncology), the American Joint Committee on Cancer TNM Staging Classification, Surveillance Epidemiology and End Results Summary Staging, and Collaborative Staging and Facility Oncology Registry Data Standards. (3 contact hours)

Prerequisite: IMS-115, MRT-132 and MTH-109 or higher all with a minimum grade of "C"

### **MRT-141 Coding Computer Applications (2)**

In this course, students are assigned to the college's health information technology and computer laboratories for supervised learning experiences. Emphasis is on mastery of entry-level competencies related to reimbursement including inpatient ICD-10-CM/PCS coding, ambulatory ICD-10-CM & HCPCS coding and health record software applications involving health data abstracting, encoding and APC/DRG assignment. Additional topics include computer assisted coding, medical necessity, physician queries and public data reporting. (3 contact hours)

Prerequisite: MRT-115 and MRT-133 both with a minimum grade of "C" Corequisite: Registration or credit in MRT-212

### **MRT-211 Health Statistics and Data Analysis (3)**

This course focuses on healthcare data analytics and utilizes basic descriptive, institutional and healthcare statistics. Concentration on Excel spreadsheets and computer charting. In addition, research and continuous quality improvement study methodologies are introduced and applied to health information data quality projects. Fee is required. (5 contact hours)

Prerequisite: IMS-115, MRT-111 and MTH-109 or higher all with a minimum grade of "C"

### **MRT-212 Medical Reimbursement Systems (3)**

This course is a continuation of ICD-10-CM and CPT theory with emphasis on prospective payment system regulations, ambulatory care reimbursement issues, case mix analysis, and the impact of prospective payment on health care facilities. Other units of instruction include hospital and medical staff organization, managed care, accrediting, approving, licensing, and certifying agencies. (3 contact hours)

Corequisite: Registration or credit in MRT-119, MRT-132 and MRT-114 or MRT-123

### **MRT-213 Supervisory Techniques (3)**

This course includes a study of the theory and practice essential to the efficient operation of a health information

management department within an acute, ambulatory or long-term care setting. Emphasis is placed on application to enable students to easily transfer knowledge directly to the workplace. Students will complete organizational charts, policies, procedures, job descriptions, departmental layouts, schedules, budgets, performance evaluations, productivity monitors, and other activities normally completed at the supervisory level. (3 contact hours)

Prerequisite: MRT-115 and MRT-211 both with a minimum grade of "C"

### **MRT-215 HIT Professional Practice II (3)**

In this classroom-based course, students gain clinical experience and apply health information management theory. Emphasis is on mastery of entry-level competencies related to the application of coding systems using a variety of authentic inpatient and outpatient medical records. Fee is required. (5 contact hours)

Prerequisite: MRT-115, MRT-132 and MRT-133 all with a minimum grade of "C" Corequisite: Registration or credit in MRT-140 and MRT-141

### **MRT-216 HIT Professional Practice III (5)**

In this course, students are assigned to health information management and adjunct departments of affiliated healthcare facilities for supervised clinical experiences and application of health information management theory. Emphasis is on mastery of entry-level competencies related to health information technology and a capstone of the coursework performed within the program. Fee is required. (15 contact hours)

Prerequisite: MRT-215 with a minimum grade of "C" Corequisite: Registration or credit in MRT-213 and MRT-218

### **MRT-218 Quality Management (2)**

This course focuses on quality management. It includes the basic components of a hospital-wide quality program: quality improvement, utilization management, risk management, credentialing, and compliance with standards and regulations. Quality applications are integrated throughout the course, stressing the importance of application, including data collection, statistical quality control, data display, and assessment. (2 contact hours)

Prerequisite: MRT-211 with a minimum grade of "C"

## **MTH—Mathematics**

### **MTH-060 Whole Numbers and Fractions (1)**

Includes basic operations with whole numbers and fractions. Introduces conversion of measurement units. Credit hours for this course can be applied to full- or part-time status, but will not count toward graduation credits

unless specified in your certificate or degree program. (1 contact hour)

### **MTH-070 Decimals and Percents (1)**

Includes operations with decimals, conversion of fractions to decimals and percents, decimals to fractions and percents, percents to decimals and fractions, and solutions of basic problems involving percents. Credit hours for this course can be applied to full- or part-time status, but will not count toward graduation credits unless specified in your certificate or degree program. (1 contact hour)

Prerequisite: MTH-060

### **MTH-080 Pre-Algebra Topics (1)**

Review of signed numbers, linear equations, and ratios and proportions. Credit hours for this course can be applied to full- or part-time status, but will not count toward graduation credits unless specified in your certificate or degree program. (1 contact hour)

Prerequisite: MTH-070

### **MTH-090 Developmental Math (3)**

An arithmetic course emphasizing fractions, decimals, and percent. Signed numbers, the number line, and order of operations are covered. Credit hours for this course can be applied to full- or part-time status, but will not count toward graduation credits unless specified in your certificate or degree program. (3 contact hours)

### **MTH-095 Beginning Algebra (4)**

Topics to be covered include order of operations, the solution of linear equations and inequalities in one variable, the rectangular coordinate system, systems of equations, operations with polynomials, and topics in geometry. Credit hours for this course can be applied to full- or part-time status, but will not count toward graduation credits unless specified in your certificate or degree program. (4 contact hours)

Prerequisite: MTH-090 with a minimum grade of "C" or appropriate placement test score

### **MTH-096 Mathematical Reasoning (5)**

This course focuses on developing students' mathematical reasoning skills through problem-solving, critical thinking, and data analysis. Students will develop conceptual and procedural tools that support the use of mathematical concepts in a variety of life and work contexts. Topics will include graphical analysis, algebraic reasoning and modeling, geometry, proportional reasoning, personal finance and probability and statistics. This course will satisfy the prerequisite requirements for MTH-120 (General Education Mathematics) and MTH-139 (Statistics) only. Students requiring different mathematics classes should take MTH-095 and MTH-098. Credit hours for this course can be applied to full- or part-time status, but will not count

toward graduation credits unless specified in your certificate or degree program. (5 contact hours)

Prerequisite: MTH-090 with a minimum grade of "C" or appropriate placement test score

### **MTH-097 Geometry (3)**

Covers axioms, theorems, points, lines, angles, angular and linear measure, coordinate geometry, two-dimensional geometric figures, and basic proofs. Credit hours for this course can be applied to full- or part-time status, but will not count toward graduation credits unless specified in your certificate or degree program. (3 contact hours)

Prerequisite: MTH-095 with a minimum of grade "C" or appropriate placement test score

### **MTH-098 Intermediate Algebra (4)**

Topics include factoring, operations with algebraic and rational expressions, equations, exponents and radicals, radical equations, functions, and quadratic equations. Credit hours for this course can be applied to full- or part-time status, but will not count toward graduation credits unless specified in your certificate or degree program. (4 contact hours)

Prerequisite: 2 years of high school math including algebra and appropriate placement test score, or MTH-095 or MTH-096 with minimum grade of "C"

### **MTH-102 Mathematics for Paraprofessionals (3)**

Designed for the elementary school paraprofessional, the topics include problem solving, sets of numbers, number theory, statistics, probability, geometric figures, measurement, and geometric motion. The course will satisfy the core requirement for the A.A.S. or certificate program for elementary paraprofessionals. Students seeking general education math credit are advised to register for MTH-121 and MTH-122 if they are pursuing a teaching degree. (3 contact hours)

Prerequisite: MTH-090 with a minimum grade of "C" or appropriate test score

### **MTH-109 Math for Allied Health (2)**

This course covers the common math requirements for students in allied health science. Includes measurement systems, ratios and proportion, and elements of statistics, with an emphasis on problem solving in the health science fields. (2 contact hours)

Prerequisite: 1 year of high school algebra and appropriate placement test score, or MTH-095 with minimum grade of "C"

### **MTH-120 General Education Mathematics (3)**

This survey course is designed to help students develop competency in problem analysis and problem solving, in multi-step decision making, and quantitative reasoning. The

course focuses on mathematical reasoning and the solution of real-life problems involving mathematics. Written projects are an integral part of this course. Scientific calculators will be used as a tool in decision making. The course covers three or four of the following topics in depth: counting techniques and probability, game theory, graph theory, linear programming, logic/set theory, mathematics of finance, and statistics. This course is not intended as a prerequisite for any other course in math and is not intended for engineering or science majors. Its primary goal is to help the general liberal arts student gain the level of numerical literacy and problem-solving skill necessary to become an educated citizen. (3 contact hours)

Prerequisite: 2 years of high school math including algebra and appropriate placement test score, or MTH-096 or MTH-098 with a minimum grade of "C" IAI Code: M1 904

### **MTH-121 Math for Teachers I (3)**

Designed for elementary education majors, topics include problem solving, number theory, numeration systems, mental mathematics, electronic and written computation of whole numbers, integers, fractions, decimals and percents. This course will emphasize problem solving as described by the National Council of Teachers of Mathematics. The educational goals described in the NCTM report, Curriculum and Evaluation Standards for School Mathematics will be sought. This course will satisfy the mathematics general education requirement for elementary education majors if MTH-122 has also been completed. Students seeking typical general education math credit at this level are advised to register for MTH-120 or MTH-139. (3 contact hours)

Prerequisite: 2 years of high school math including algebra and geometry, and appropriate placement test score, or MTH-097 and MTH-098 with a minimum grade of "C"

### **MTH-122 Math for Teachers II (3)**

MTH-122 is a continuation of MTH-121. It is designed and intended for elementary education majors. Topics include real numbers, informal geometry, measurement, probability, statistics, and problem solving. This course will satisfy the mathematics general education requirement for elementary education majors if MTH-121 has also been completed. (3 contact hours)

Prerequisite: MTH-121 with a minimum grade of "C" or consent of instructor IAI Code: M1 903

### **MTH-133 Math for Industry (2)**

The purpose of this course is to coordinate and integrate the necessary math skills with concepts presented in the areas of electronics, machine tools, mechanics, hydraulics and pneumatics. Basic algebraic formulas and operations, basic trigonometric functions, scales and units, and number systems will be explored. (2 contact hours)

Prerequisite: 2 years of high school math including algebra and appropriate placement test score, or MTH-095 with a minimum grade of "C"

#### **MTH-139 Probability and Statistics (4)**

Topics include gathering, organizing, presenting, and interpreting data; variability, uncertainty and hypothesis testing; methods of drawing inferences, making decisions from observed data, and probabilistic models. Students will be introduced to a statistical computer software package to help analyze and interpret data. Note: MTH-139 and MTH-212 cover the same basic core of statistics; however, MTH-212 moves at a faster pace, is more oriented toward business examples, and explores hypothesis tests to a greater depth. No more than four credit hours will be granted to students taking MTH-139 and MTH-212. (4 contact hours)

Prerequisite: 2 years of high school math including algebra and appropriate placement test score, or MTH-096 or MTH-098 with a minimum grade of "C" IAI Code: M1 902

#### **MTH-141 College Algebra (Functions) (4)**

This functions approach to college algebra includes polynomial, rational, radical, exponential, and logarithmic functions. Effective and efficient use of graphing calculators will be an integral part of the course. (4 contact hours)

Prerequisite: 3 years of high school math including advanced algebra and appropriate placement test score, or MTH-098 with a minimum grade of "C"

#### **MTH-142 Trigonometric Functions (2)**

Topics in this course include trigonometric functions, their inverse functions, graphs, the unit circle, right triangle trigonometry, basic identities, and trigonometric equations. (2 contact hours)

Prerequisite: 3 years of high school math including advanced algebra and appropriate placement test score, or MTH-141 with a minimum grade of "C"

#### **MTH-143 Finite Mathematics (4)**

Business, economic, social, and biological problems are described and solved mathematically. Sets, probability, matrix algebra, linear programming, systems of equations and inequalities, exponential growth and annuities, and stochastic processes are considered. (4 contact hours)

Prerequisite: 3-1/2 years of high school math including precalculus or advanced algebra, and appropriate placement test score, or MTH-141 with a minimum grade of "C" IAI Code: M1 906

#### **MTH-145 Calculus for Business & Social Science (4)**

Introduces calculus through functions, differentiation and integration with applications to the business and social science fields. Note: No more than five hours of credit will

be granted to students taking both MTH-145 and MTH-150. (4 contact hours)

Prerequisite: 3-1/2 years of high school math including precalculus or advanced algebra, and appropriate placement test score, or MTH-141 with a minimum grade of "C" IAI Code: M1 900-B

#### **MTH-150 Calculus I/Analytic Geometry (5)**

Topics include limits, continuity, the derivative, application of differentiation, curve sketching, anti-differentiation, and the definite integral. These topics are applied to polynomial, radical, rational, logarithmic, exponential, trigonometric, and hyperbolic functions. Note: No more than five hours of credit will be granted to students taking both MTH-145 and MTH-150. (5 contact hours)

Prerequisite: 4 years of high school math including precalculus or advanced algebra with trigonometry, and appropriate placement test score, or both MTH-141 and MTH-142 with a minimum grade of "C" IAI Code: M1900-1 and MTH901

#### **MTH-151 Calculus II/Analytic Geometry (5)**

A continuation of MTH-150. Topics include applications of the integral, techniques of integration, indeterminate forms, improper integrals, infinite series, conic sections, polar coordinates, and parametric equations. (5 contact hours)

Prerequisite: MTH-150 with a minimum grade of "C" IAI Code: M1900-2 and MTH902

#### **MTH-152 Calculus III/Analytic Geometry (4)**

A continuation of MTH-151. Topics include vectors, vector calculus, vector fields, solid analytic geometry, functions of several variables, partial derivatives, multiple integration, and applications. (4 contact hours)

Prerequisite: MTH-151 with a minimum grade of "C" IAI Code: M1900-3 and MTH903

#### **MTH-201 Differential Equations (3)**

An introduction to ordinary differential equations, methods of solution and applications. Topics include first order differential equations, linear differential equations, graphical and numerical approximating techniques for solutions, and solutions by Laplace transforms. (3 contact hours)

Prerequisite: MTH-151 with a minimum grade of "C" IAI Code: MTH912

#### **MTH-210 Linear Algebra (3)**

Topics include vectors, vector spaces, matrices, determinants matrix algebra, linear independence, linear transformations, eigenvalues, eigenvectors, and applications of matrices and transformations. Approximately one third of the course involves the concept of mathematical proofs as applied to linear algebra. (3 contact hours)

Prerequisite: MTH-151 with a minimum grade of "C" IAI  
Code: MTH911

#### **MTH-212 Statistics for Business (4)**

Covers descriptive statistics, data presentation, analysis, and interpretation, sampling techniques, hypothesis testing for single and multiple samples, analysis of variance; selection of appropriate parametric and non-parametric statistical tests, correlation and regression; and multi-step decision-making techniques in a business environment. Students use a statistical computer software package to analyze and interpret data. Note: MTH-139 and MTH-212 cover the same basic core of statistics; however, MTH-212 moves at a faster pace, is more oriented toward business examples, and explores hypothesis tests to a greater depth. No more than four credit hours will be granted to students taking MTH-139 and MTH-212. (4 contact hours)

Prerequisite: 3-1/2 years of high school math including precalculus or advanced algebra and appropriate placement test score, or MTH-141 with a minimum grade of "C" IAI Code: M1902 and BUS901

#### **MTH-215 Discrete Mathematics (3)**

Introduction to analysis of finite collections and mathematical foundations of sequential machines, computer system design, data structures and algorithms. Course material includes sets, counting, recursion, graph theory, trees, Boolean algebra, automata, and formal grammar and languages. (3 contact hours)

Prerequisite: MTH-141 with a minimum grade of "C" or 3-1/2 years of high school math including pre-calculus or advanced algebra and appropriate placement test score IAI Code: M1905 and CS915

### **MUS—Music**

#### **MUS-103 Basic Musicianship (3)**

The study of music theory to improve music performance and listening skills. Includes major and minor scales, intervals, study of rhythm, triads and their inversions, dominant seventh chords, and the concept of tonality. Practical exercises in the development of music dictation skills as well as beginning music composition are also included. This course is designed for students with previous musical training and experience. (4 contact hours)

#### **MUS-104 Music Theory I (3)**

This course covers four-part harmony in close and open structure, using major, minor, diminished and dominant seventh triads in root position and inversion. Practical exercises in music dictation, keyboard and sight-singing skills as well as elementary music composition and analysis also are included. (5 contact hours)

Prerequisite: MUS-103 or consent of instructor Corequisite: Registration or credit in MUS-118 and MUS-189

#### **MUS-105 Music Theory II (3)**

The study of four-part harmony according to established principles of harmonic progression. More advanced exercises in music dictation, keyboard and sight-singing skills, analysis and music composition. (5 contact hours)

Prerequisite: MUS-104 with a minimum grade of "C"  
Corequisite: Registration or credit in MUS-120 and MUS-190

#### **MUS-106 Introduction to American Music (3)**

A survey of American music to include classical, country, jazz, blues, rock, and other forms of expression. Aside from musical considerations, attention will be given to past and present socio-cultural conditions influencing American musical traditions and styles. This is a general education course and does not require previous musical experience. (3 contact hours)

IAI Code: F1 904

#### **MUS-107 Music Appreciation (3)**

The study of classical music to provide basic listening skills, the ability to discuss music intelligently, and an acquaintance with the basic genres available to the listening public. This course is designed as a general education offering and does not require previous musical experience. (3 contact hours)

IAI Code: F1 900

#### **MUS-109 Percussion Ensemble I (1)**

This course provides ensemble experience for percussionists dedicated to the performance and exploration of percussion literature including ragtime, classical, popular, Caribbean/Latin, chamber and jazz. The ensemble will perform several concerts each semester both on and off campus. First-time students should enroll in MUS-109 and enroll in the next numbered course for each subsequent semester. Fee is required. (2 contact hours)

#### **MUS-110 Percussion Ensemble II (1)**

This course provides ensemble experience for percussionists dedicated to the performance and exploration of percussion literature including ragtime, classical, popular, Caribbean/Latin, chamber and jazz. The ensemble will perform several concerts each semester both on and off campus. First time students should enroll in MUS-109 and enroll in the next numbered course for each subsequent semester. Fee is required. (2 contact hours)

#### **MUS-113 Music Technology I (3)**

This course provides an introduction to the creative and technical skills used in blending music and technology. Concepts covered include digital recording technology, computer-based composition, MIDI, loop production, music notation software, acoustics, and microphone design and

application. Additional topics will consist of audio-visual production, scoring for film and multimedia, and music technology applications for the musician and music educator. Familiarity with using computer software and basic piano keyboard skills are strongly recommended. Fee is required. (3 contact hours)

Corequisite: Registration or credit in MUS-103 or MUS-104 or consent of instructor

#### **MUS-115 Class Piano I (1)**

For first-year pianists who wish to learn piano primarily for personal enrichment. Stresses rhythm, melody, reading, harmonization, and theoretical knowledge, along with beginning solo and ensemble repertoire. Fee is required. Must own or have access to keyboard/piano. (2 contact hours)

Prerequisite: Must own or have access to keyboard/piano

#### **MUS-116 Class Piano II (1)**

A continuation of MUS-115 for students who wish to learn piano primarily for personal enrichment. Fee is required. Must own or have access to keyboard/piano. (2 contact hours)

Prerequisite: MUS-103 or MUS-115 and must own or have access to keyboard/piano

#### **MUS-117 Class Voice (1)**

For singers who wish to learn how to sing properly, primarily for personal enrichment. Stresses proper breathing and vocal technique, elementary musicianship, as well as beginning song repertoire from folk music, musical theater and art songs. Fee is required. (2 contact hours)

#### **MUS-118 Keyboard Skills I (1)**

The development of basic keyboard skills including scales and modes, simple harmonic progressions, melodic line harmonization, and basic figured-bass realization. All subject material is designed to reinforce concepts presented in MUS-104. This is the first in a series of four keyboard skill courses required for all music majors. Students must complete with a minimum grade of "C" before moving to the next level. (2 contact hours)

Corequisite: Registration or credit in MUS-104 and MUS-189

#### **MUS-119 Class Guitar (1)**

For those who wish to learn how to play guitar primarily for personal enrichment. Stresses learning basic chords, elementary musicianship, as well as beginning strumming and fingerpicking techniques. Fee is required. (2 contact hours)

Prerequisite: Must own or have access to guitar

#### **MUS-120 Keyboard Skills II (1)**

The continuation of MUS-118 with the addition of secondary harmonic progressions, sequential harmonic progressions, and diatonic modulations. All subject material is designed to reinforce concepts presented in MUS-105. This is the second in a series of four keyboard skill courses required for all music majors. Students must complete with a minimum grade of "C" before moving to the next level. (2 contact hours)

Prerequisite: MUS-118 with a minimum grade of "C"

Corequisite: Registration or credit in MUS-105 and MUS-190

#### **MUS-121 Applied Voice Non-Major I (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in voice music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First-time students should enroll in MUS-121 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

#### **MUS-122 Applied Voice Non-Major II (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in voice music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First-time students should enroll in MUS-121 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

#### **MUS-125 Applied Voice Major I (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in voice music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-125 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

**MUS-126 Applied Voice Major II (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in voice music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-125 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

**MUS-129 Applied Strings Non-Major I (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in string music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First time students should enroll in MUS-129 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

**MUS-130 Applied Strings Non-Major II (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in string music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First time students should enroll in MUS-129 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

**MUS-131 Applied Piano Non-Major I (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in piano music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First time students should enroll in MUS-131 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

**MUS-132 Applied Piano Non-Major II (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in piano music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First time students should enroll in MUS-131 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

**MUS-135 Applied Piano Major I (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in piano music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-135 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

**MUS-136 Applied Piano Major II (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in piano music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-135 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

**MUS-139 Applied Strings Major I (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in string music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-139 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

**MUS-140 Applied Strings Major II (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be

assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in string music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-139 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

#### **MUS-141 Chamber Singers I (1)**

This course provides chamber ensemble experience for vocalists dedicated to the performance and exploration of a wide variety of contemporary singing styles. The ensemble will perform several concerts each semester both on and off campus. First-time students should enroll in MUS-141 and enroll in the next numbered course for each subsequent semester. This course also may be taken for noncredit. Fee is required. (3 contact hours)

#### **MUS-142 Chamber Singers II (1)**

This course provides chamber ensemble experience for vocalists dedicated to the performance and exploration of a wide variety of contemporary singing styles. The ensemble will perform several concerts each semester both on and off campus. First-time students should enroll in MUS-141 and enroll in the next numbered course for each subsequent semester. This course may also be taken for noncredit. Fee is required. (3 contact hours)

#### **MUS-145 Chorale I (1)**

This course provides large ensemble experience for vocalists dedicated to the performance and exploration of choral literature including Broadway, operatic, patriotic and holiday selections. The ensemble will perform several concerts each semester both on and off campus. First-time students should enroll in MUS-145 and enroll in the next numbered course for each subsequent semester. This course also may be taken for noncredit. Fee is required. (2 contact hours)

#### **MUS-146 Chorale II (1)**

This course provides large ensemble experience for vocalists dedicated to the performance and exploration of choral literature including Broadway, operatic, patriotic and holiday selections. The ensemble will perform several concerts each semester both on and off campus. First-time students should enroll in MUS-145 and enroll in the next numbered course for each subsequent semester. This course also may be taken for noncredit. Fee is required. (2 contact hours)

#### **MUS-149 Flute Choir I (1)**

This course provides ensemble experience for flutists dedicated to the performance and exploration of a wide variety of flute choir literature. This ensemble will perform

public performances, recitals and concerts each semester. First-time students should enroll in MUS-149 and enroll in the next numbered course for each subsequent semester. This course also may be taken for noncredit. (2 contact hours)

#### **MUS-151 Jazz Ensemble I (1)**

This course provides ensemble experience for saxophonists, trombonists, trumpet players and rhythm section instrumentalists (guitar, piano, bass, percussion) dedicated to the performance and exploration of big band and jazz literature from the 1930 to the present. Repertoire emphasizes study and performance of masterworks by significant historical and contemporary jazz composers. The ensemble will perform several concerts each semester both on and off campus. First-time students should enroll in MUS-151 and enroll in the next numbered course for each subsequent semester. This course also may be taken for noncredit. Fee is required. (3 contact hours)

#### **MUS-152 Jazz Ensemble II (1)**

This course provides ensemble experience for saxophonists, trombonists, trumpet players and rhythm section instrumentalists (guitar, piano, bass, percussion) dedicated to the performance and exploration of big band and jazz literature from the 1930s to the present. Repertoire emphasizes study and performance of masterworks by significant historical and contemporary jazz composers. The ensemble will perform several concerts each semester both on and off campus. First-time students should enroll in MUS-151 and enroll in the next numbered course for each subsequent semester. This course also may be taken for noncredit. Fee is required. (3 contact hours)

#### **MUS-159 Flute Choir II (1)**

This course provides ensemble experience for flutists dedicated to the performance and exploration of a wide variety of flute choir literature. This ensemble will perform public performances, recitals and concerts each semester. First-time students should enroll in MUS-149 and enroll in the next numbered course for each subsequent semester. This course also may be taken for noncredit. (2 contact hours)

Prerequisite: MUS-149

#### **MUS-161 Instrumental Chamber Ensemble I (1)**

This course provides chamber ensemble experience for instrumentalists dedicated to the performance and exploration of a wide variety of musical literature. This ensemble will perform several public performances, recitals and concerts each semester. First-time students should enroll in MUS-161 and enroll in the next numbered course for each subsequent semester. This course also may be taken for noncredit. Fee is required. (2 contact hours)

**MUS-162 Instrumental Chamber Ensemble II (1)**

This course provides chamber ensemble experience for instrumentalists dedicated to the performance and exploration of a wide variety of musical literature. This ensemble will perform several public performances, recitals and concerts each semester. First-time students should enroll in MUS-161 and enroll in the next numbered course for each subsequent semester. This course also may be taken for noncredit. Fee is required. (2 contact hours)

**MUS-169 Applied Percussion Non-Major I (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in Percussion music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual students. First-time students should enroll in MUS-169 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

**MUS-170 Applied Percussion Non-Major II (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in percussion music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual students. First-time students should enroll in MUS-169 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

**MUS-171 Orchestra I (1)**

This course provides ensemble performance experience for orchestral violin, viola, cello, string bass and wind players dedicated to the performance and exploration of symphonic and chamber orchestra literature. The ensemble will perform one or more concerts each semester. First-time students should enroll in MUS-171 and enroll in the next numbered course for each subsequent semester. This course may also be taken for non-credit. Fee is required. (2 contact hours)

**MUS-172 Orchestra II (1)**

This course provides ensemble performance experience for orchestral violin, viola, cello, string bass and wind players dedicated to the performance and exploration of symphonic and chamber orchestra literature. The ensemble will perform one or more concerts each semester. First-time students should enroll in MUS-171 and enroll in the next

numbered course for each subsequent semester. This course may also be taken for non-credit. Fee is required. (2 contact hours)

**MUS-173 Orchestra III (1)**

This course provides ensemble performance experience for orchestral violin, viola, cello, string bass and wind players dedicated to the performance and exploration of symphonic and chamber orchestra literature. The ensemble will perform one or more concerts each semester. First-time students should enroll in MUS-171 and enroll in the next numbered course for each subsequent semester. This course may also be taken for non-credit. Fee is required. (2 contact hours)

**MUS-174 Orchestra IV (1)**

This course provides ensemble performance experience for orchestral violin, viola, cello, string bass and wind players dedicated to the performance and exploration of symphonic and chamber orchestra literature. The ensemble will perform one or more concerts each semester. First-time students should enroll in MUS-171 and enroll in the next numbered course for each subsequent semester. This course may also be taken for non-credit. Fee is required. (2 contact hours)

**MUS-175 Concert Band I (1)**

This course provides ensemble experience for wind players and percussionists dedicated to the performance and exploration of wind band literature including new music, classical transcriptions, marches, movie scores, Broadway and popular. The ensemble will perform several concerts each semester both on and off campus. First-time students should enroll in MUS-175 and enroll in the next numbered course for each subsequent semester. This course also may be taken for noncredit. Fee is required. (2 contact hours)

**MUS-176 Concert Band II (1)**

This course provides ensemble experience for wind players and percussionists dedicated to the performance and exploration of wind band literature including new music, classical transcriptions, marches, movie scores, Broadway and popular. The ensemble will perform several concerts each semester both on and off campus. First-time students should enroll in MUS-175 and enroll in the next numbered course for each subsequent semester. This course also may be taken for noncredit. Fee is required. (2 contact hours)

**MUS-179 Applied Percussion Major I (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in percussion music skills.

The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-179 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

#### **MUS-180 Applied Percussion Major II (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in percussion music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-179 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

#### **MUS-181 Applied Guitar Non-Major I (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in guitar music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First-time students should enroll in MUS-181 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

#### **MUS-182 Applied Guitar Non-Major II (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in guitar music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First-time students should enroll in MUS-181 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

#### **MUS-185 Applied Guitar Major I (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in guitar music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature.

One recital and jury performance are required. First-time students should enroll in MUS-185 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

#### **MUS-186 Applied Guitar Major II (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in guitar music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-185 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

#### **MUS-189 Aural Skills I (1)**

The study of ear training and sight singing in various diatonic keys. This includes interval recognition, solfedge singing, rhythm reading, melodic and harmonic dictation. All subject material is designed to reinforce concepts presented in MUS-104. This is the first in a series of four aural skills courses required for all music majors. Students must complete with a minimum grade of "C" before moving to the next level. (2 contact hours)

Corequisite: Registration or credit in MUS-104 and MUS-118

#### **MUS-190 Aural Skills II (1)**

The study of ear training and sight singing in various diatonic keys. This includes interval recognition, solfedge singing, rhythm reading, and melodic and harmonic dictation. All subject material is designed to reinforce concepts presented in MUS-105. This is the second in a series of four aural skills courses required for all music majors. Students must complete with a minimum grade of "C" before moving to the next level. (2 contact hours)

Prerequisite: MUS-189 with a minimum grade of "C"

Corequisite: Registration or credit in MUS-105 and MUS-120

#### **MUS-191 Applied Brasswind Non-Major I (1)**

Students will receive one 30-minute individual lesson per week for 16 weeks. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in brasswind music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First-time students should enroll in MUS-

191 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

#### **MUS-192 Applied Brasswind Non-Major II (1)**

Students will receive one 30-minute individual lesson per week for 16 weeks. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in brasswind music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First-time students should enroll in MUS 191 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

#### **MUS-193 Applied Brasswind Major I (2)**

Students will receive one 60-minute individual lesson per week for 16 weeks. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in brasswind music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-193 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

#### **MUS-194 Applied Brasswind Major II (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in brasswind music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-193 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

#### **MUS-195 Applied Woodwind Non-Major I (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in woodwind music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First-time students should enroll in MUS-195 and enroll in the next numbered

course for each subsequent semester. Fee is required. (0.5 contact hours)

#### **MUS-196 Applied Woodwind Non-Major II (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in woodwind music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First-time students should enroll in MUS-195 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

#### **MUS-197 Applied Woodwind Major I (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in woodwind music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-197 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

#### **MUS-198 Applied Woodwind Major II (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in woodwind music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-197 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

#### **MUS-204 Music Theory III (3)**

This course is a continuation of the study of diatonic and chromatic harmony along with form and analysis. Harmonic vocabulary includes secondary dominants, borrowed chords, Neapolitan chords, and augmented sixth chords. The course includes advanced exercises in music dictation, keyboard, sight-singing skills, analysis and music composition. (5 contact hours)

Prerequisite: MUS-105 with a minimum grade of "C"

Corequisite: Registration or credit in MUS-218 and MUS-289

**MUS-205 Music Theory IV (3)**

The culmination of the four-semester freshman/sophomore theory sequence, this course builds upon the student's knowledge of chromatic harmony and composition along with form and analysis and 20th century compositional methods. Harmonic vocabulary includes ninth, eleventh and thirteenth chords, chromatic modulation, modal harmonies, non-tertian harmonies, atonality, polymeter, and twelve-tone systems. Students must complete with a minimum grade of "C". (5 contact hours)

Prerequisite: MUS-204 with a minimum grade of "C"

Corequisite: Registration or credit in MUS-220 and MUS-290

**MUS-206 Music History and Literature I (3)**

Survey of styles, periods, and personalities in music literature. Includes historical development; relationship to other fine arts; study of concepts, idioms; and aesthetics in music literature; comparison of styles; variety of genres; stylistic traits of selected eras; and survey of literature for performance by musical instruments, keyboard, and voice. The first semester includes material from antiquity to 1750. Background in music is suggested, but not required. (3 contact hours)

Prerequisite: MUS-104 or consent of instructor

**MUS-207 Music History and Literature II (3)**

Survey of styles, periods, and personalities in music literature. Includes historical development; relationship to other fine arts; study of concepts, idioms; and aesthetics in music literature; comparison of styles; variety of genres; stylistic traits of selected eras; and survey of literature for performance by musical instruments, keyboard, and voice. The second semester includes material from 1750 to the present. Background in music is suggested, but not required. (3 contact hours)

Prerequisite: MUS-104 or consent of instructor

**MUS-209 Percussion Ensemble III (1)**

This course provides ensemble experience for percussionists dedicated to the performance and exploration of percussion literature including ragtime, classical, popular, Caribbean/Latin, chamber and jazz. The ensemble will perform several concerts each semester both on and off campus. First-time students should enroll in MUS-109 and enroll in the next numbered course for each subsequent semester. Fee is required. (2 contact hours)

**MUS-210 Percussion Ensemble IV (1)**

This course provides ensemble experience for percussionists dedicated to the performance and exploration of percussion literature including ragtime, classical, popular, Caribbean/Latin, chamber and jazz. The ensemble will perform several concerts each semester both on and off campus. First-time students should enroll in

MUS-109 and enroll in the next numbered course for each subsequent semester. Fee is required. (2 contact hours)

**MUS-213 Music Technology II (3)**

This course is a continuation of MUS-113 to provide intermediate-level instruction in the creative and technical skills used in blending music and technology. Concepts covered include technology-based performance, digital recording techniques, computer composition, electronic music synthesis, 3D sound and spatial audio. Students will receive instruction in the use of current digital audio software such as Ableton Live, Logic and Finale. Additional instruction includes use of amplifiers, monitoring, signal processing, and studio session procedures. Direct application for the performing musician and music educator will be emphasized. Fee is required. (3 contact hours)

Prerequisite: MUS-113 with a minimum grade of "C"

**MUS-218 Keyboard Skills III (1)**

The continuation of MUS-120 with the addition of chromatic harmony, augmented sixth chords, Neapolitan chords, and modal mixture. All subject material is designed to reinforce concepts presented in MUS-204. This is the third in a series of four keyboard skill courses required for all music majors. Students must complete with a minimum grade of "C" before moving to the next level. (2 contact hours)

Prerequisite: MUS-120 with a minimum grade of "C"

Corequisite: Registration or credit in MUS-204 and MUS-289

**MUS-220 Keyboard Skills IV (1)**

The continuation of MUS-218 with the addition of extended harmonies, chromatic modulation, non-tertian harmonies, and uncommon meters. All subject material is designed to reinforce concepts presented in MUS-205. This is the fourth in a series of four keyboard skill courses required for all music majors. Students must complete with a minimum grade of "C". (2 contact hours)

Prerequisite: MUS-218 with a minimum grade of "C"

Corequisite: Registration or credit in MUS-205 and MUS-290

**MUS-221 Applied Voice Non-Major III (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in voice music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First-time students should enroll in MUS-121 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

**MUS-222 Applied Voice Non-Major IV (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in voice music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First-time students should enroll in MUS-121 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

**MUS-225 Applied Voice Major III (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in voice music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-125 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

**MUS-226 Applied Voice Major IV (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in voice music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-125 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

**MUS-229 Applied Strings Non-Major III (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in string music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First time students should enroll in MUS-129 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

**MUS-230 Applied Strings Non-Major IV (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in string music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First time students should enroll in MUS-129 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

**MUS-231 Applied Piano Non-Major III (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in piano music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First time students should enroll in MUS-131 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

**MUS-232 Applied Piano Non-Major IV (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in piano music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First time students should enroll in MUS-131 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

**MUS-235 Applied Piano Major III (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in piano music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-135 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

**MUS-236 Applied Piano Major IV (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in piano music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-135 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

**MUS-239 Applied Strings Major III (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in string music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-139 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

**MUS-240 Applied Strings Major IV (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in string music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-139 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

**MUS-241 Chamber Singers III (1)**

This course provides chamber ensemble experience for vocalists dedicated to the performance and exploration of a wide variety of contemporary singing styles. The ensemble will perform several concerts each semester both on and off campus. First-time students should enroll in MUS-141 and enroll in the next numbered course for each subsequent semester. This course also may be taken for noncredit. Fee is required. (3 contact hours)

**MUS-242 Chamber Singers IV (1)**

This course provides chamber ensemble experience for vocalists dedicated to the performance and exploration of a wide variety of contemporary singing styles. The ensemble will perform several concerts each semester both on and off campus. First-time students should enroll in MUS-141 and enroll in the next numbered course for each subsequent

semester. This course also may be taken for noncredit. Fee is required. (3 contact hours)

**MUS-245 Chorale III (1)**

This course provides large ensemble experience for vocalists dedicated to the performance and exploration of choral literature including Broadway, operatic, patriotic and holiday selections. The ensemble will perform several concerts each semester both on and off campus. First-time students should enroll in MUS-145 and enroll in the next numbered course for each subsequent semester. This course also may be taken for noncredit. Fee is required. (2 contact hours)

**MUS-246 Chorale IV (1)**

This course provides large ensemble experience for vocalists dedicated to the performance and exploration of choral literature including Broadway, operatic, patriotic and holiday selections. The ensemble will perform several concerts each semester both on and off campus. First-time students should enroll in MUS-145 and enroll in the next numbered course for each subsequent semester. This course also may be taken for noncredit. Fee is required. (2 contact hours)

**MUS-249 Flute Choir III (1)**

This course provides ensemble experience for flutists dedicated to the performance and exploration of a wide variety of flute choir literature. This ensemble will perform public performances, recitals and concerts each semester. First-time students should enroll in MUS-149 and enroll in the next numbered course for each subsequent semester. This course also may be taken for noncredit. (2 contact hours)

Prerequisite: MUS-159

**MUS-251 Jazz Ensemble III (1)**

This course provides ensemble experience for saxophonists, trombonists, trumpet players and rhythm section instrumentalists (guitar, piano, bass, percussion) dedicated to the performance and exploration of big band and jazz literature from the 1930s to the present. Repertoire emphasizes study and performance of masterworks by significant historical and contemporary jazz composers. The ensemble will perform several concerts each semester both on and off campus. First-time students should enroll in MUS-151 and enroll in the next numbered course for each subsequent semester. This course also may be taken for noncredit. Fee is required. (3 contact hours)

**MUS-252 Jazz Ensemble IV (1)**

This course provides ensemble experience for saxophonists, trombonists, trumpet players and rhythm section instrumentalists (guitar, piano, bass, percussion) dedicated to the performance and exploration of big band

and jazz literature from the 1930s to the present. Repertoire emphasizes study and performance of masterworks by significant historical and contemporary jazz composers. The ensemble will perform several concerts each semester both on and off campus. First-time students should enroll in MUS-151 and enroll in the next numbered course for each subsequent semester. This course also may be taken for noncredit. Fee is required. (3 contact hours)

#### **MUS-259 Flute Choir IV (1)**

This course provides ensemble experience for flutists dedicated to the performance and exploration of a wide variety of flute choir literature. This ensemble will perform public performances, recitals and concerts each semester. First-time students should enroll in MUS-149 and enroll in the next numbered course for each subsequent semester. This course also may be taken for noncredit. (2 contact hours)

Prerequisite: MUS-249

#### **MUS-261 Instrumental Chamber Ensemble III (1)**

This course provides chamber ensemble experience for instrumentalists dedicated to the performance and exploration of a wide variety of musical literature. This ensemble will perform several public performances, recitals and concerts each semester. First-time students should enroll in MUS-161 and enroll in the next numbered course for each subsequent semester. This course also may be taken for noncredit. Fee is required. (2 contact hours)

#### **MUS-262 Instrumental Chamber Ensemble IV (1)**

This course provides chamber ensemble experience for instrumentalists dedicated to the performance and exploration of a wide variety of musical literature. This ensemble will perform several public performances, recitals and concerts each semester. First-time students should enroll in MUS-161 and enroll in the next numbered course for each subsequent semester. This course also may be taken for noncredit. Fee is required. (2 contact hours)

#### **MUS-269 Applied Percussion Non-Major III (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in percussion music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual students. First-time students should enroll in MUS-169 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

#### **MUS-270 Applied Percussion Non-Major IV (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in percussion music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual students. First-time students should enroll in MUS-169 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

#### **MUS-275 Concert Band III (1)**

This course provides ensemble experience for wind players and percussionists dedicated to the performance and exploration of wind band literature including new music, classical transcriptions, marches, movie scores, Broadway and popular. The ensemble will perform several concerts each semester both on and off campus. First-time students should enroll in MUS-175 and enroll in the next numbered course for each subsequent semester. This course also may be taken for noncredit. Fee is required. (2 contact hours)

#### **MUS-276 Concert Band IV (1)**

This course provides ensemble experience for wind players and percussionists dedicated to the performance and exploration of wind band literature including new music, classical transcriptions, marches, movie scores, Broadway and popular. The ensemble will perform several concerts each semester both on and off campus. First-time students should enroll in MUS-175 and enroll in the next numbered course for each subsequent semester. This course also may be taken for noncredit. Fee is required. (2 contact hours)

#### **MUS-279 Applied Percussion Major III (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in percussion music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-179 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

#### **MUS-280 Applied Percussion Major IV (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course

provides individual instruction in percussion music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-179 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

#### **MUS-281 Applied Guitar Non-Major III (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in guitar music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First-time students should enroll in MUS-181 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

#### **MUS-282 Applied Guitar Non-Major IV (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in guitar music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First-time students should enroll in MUS-181 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

#### **MUS-285 Applied Guitar Major III (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in guitar music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-185 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

#### **MUS-286 Applied Guitar Major IV (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in guitar music skills. The curriculum includes the study of advanced techniques,

stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-185 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

#### **MUS-289 Aural Skills III (1)**

The continued study of ear training and sight singing in various diatonic keys. This includes recognition of melodic and harmonic chromaticism, solfedge singing, rhythm reading, in various meters, melodic and harmonic dictation. All subject material is designed to reinforce concepts presented in MUS-204. This is the third in a series of four aural skills courses required for all music majors. Students must complete with a minimum grade of "C" before moving to the next level. (2 contact hours)

Prerequisite: MUS-190 with a minimum grade of "C"

Corequisite: Registration or credit in MUS-204 and MUS-218

#### **MUS-290 Aural Skills IV (1)**

The continued study of ear training and sight singing. This includes recognition of 20th century melodic and harmonic chromaticism, solfedge singing, rhythmic reading with odd meters and groupings, melodic and harmonic dictation. All subject material is designed to reinforce concepts presented in MUS-205. This is the fourth in a series of four aural skills courses required for all music majors. Students must complete with a minimum grade of "C". (2 contact hours)

Prerequisite: MUS-289 with a minimum grade of "C"

Corequisite: Registration or credit in MUS-205 and MUS-220

#### **MUS-291 Applied Brasswind Non-Major III (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in brasswind music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First-time students should enroll in MUS-191 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

#### **MUS-292 Applied Brasswind Non-Major IV (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in

brasswind music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First-time students should enroll in MUS-191 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

#### **MUS-293 Applied Brasswind Major III (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in brasswind music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-193 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

#### **MUS-294 Applied Brasswind Major IV (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in brasswind music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-193 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

#### **MUS-295 Applied Woodwind Non-Major III (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in woodwind music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level and interest of the individual student. First-time students should enroll in MUS-195 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

#### **MUS-296 Applied Woodwind Non-Major IV (1)**

Students will receive one 30-minute individual lesson per week. Five additional hours of individual practice will be assigned for each week. The level of instruction is intended for students studying music for personal enrichment. This course is not intended for students planning to pursue a music degree. The course provides individual instruction in woodwind music skills. The curriculum includes the study of technique and music repertoire appropriate to the skill level

and interest of the individual student. First-time students should enroll in MUS-195 and enroll in the next numbered course for each subsequent semester. Fee is required. (0.5 contact hours)

#### **MUS-297 Applied Woodwind Major III (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in woodwind music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-197 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

#### **MUS-298 Applied Woodwind Major IV (2)**

Students will receive one 60-minute individual lesson per week. Ten additional hours of individual practice will be assigned for each week. The level of instruction is intended for students planning to pursue a music degree. The course provides individual instruction in woodwind music skills. The curriculum includes the study of advanced techniques, stylistic interpretation and performance of solo literature. One recital and jury performance are required. First-time students should enroll in MUS-197 and enroll in the next numbered course for each subsequent semester. Fee is required. (1 contact hour)

### **NAT—Natural Science**

#### **NAT-111 Environmental Science I (4)**

This interdisciplinary analysis of man's environment stresses the physical, biological and ecological aspects. Man's relationship to the natural environment and responsible stewardship are emphasized. The units of study are water, wildlife, population/resources, and geology. Fee is required. (6 contact hours)

IAI Code: L1 905L

#### **NAT-112 Environmental Science II (4)**

An interdisciplinary analysis of man's environment which stresses physical, biological and ecological aspects. Man's relationship to the natural environment and responsible stewardship are emphasized. The units of study are vegetation, soils, weather/climate, and urban land use. Fee is required. (6 contact hours)

IAI Code: L1 905L

#### **NAT-201 Environmental Problems (4)**

Study modules on resource problems, chemicals and the environment, waste disposal, and land use. Each module equals one credit. Deals with political aspects and

environmental philosophy of selected problems. Outdoor activities are scheduled. Fee is required. (6 contact hours)  
Prerequisite: NAT-111 and NAT-112, or consent of instructor

## **NUR—Nursing**

### **NUR-140 Nursing Concepts I (4)**

Course discussions focus on the fundamentals of basic safe and effective nursing care of the individual, incorporating IOM standards and the QSEN standards. Learners will be introduced to the Nursing Program philosophy, organizing framework and the nursing process. Attention will be given to healthy, stable, and commonly-occurring chronic and restorative conditions related to the human needs of health maintenance, safety and protection, nutrition, elimination/exchange, activity, rest, comfort and cognition/perception. Fee is required. (4 contact hours)

Prerequisite: Admission to the Nursing Program

Corequisite: HSC-120 and NUR-150

### **NUR-141 Nursing Concepts II (3)**

Course discussions focus on continued discussions of safe and effective care of the individual incorporating Institute of Medicine (IOM) standards, Quality Safety Education for Nurses (QSEN) competencies and the nursing process. Attention will be given to healthy, chronic and restorative conditions related to the human needs of health maintenance, nutrition, elimination, activity, rest, comfort, and sexuality/reproduction. Fee is required. (4 contact hours)

Prerequisite: HSC-120, NUR-151, and NUR-160

Corequisite: HSC-140, NUR-152 and NUR-161

### **NUR-142 Nursing Concepts III (3)**

Course discussions focus on continued discussion of the safe and effective care of the individual incorporating Institute of Medicine (IOM) standards, Quality Safety Education for Nurses (QSEN) competencies and the nursing process. Attention will be given to healthy, chronic and restorative conditions related to the human needs of self-perception/self-control, role relationships, sexuality/reproduction, coping/stress tolerance, and values/beliefs. (3 contact hours)

Prerequisite: NUR-141 and NUR-152 Corequisite: HSC-140, NUR-162 and PSY-104

### **NUR-145 Nursing Enrichment I Special Topics (1)**

This is a dynamic seminar style course for students who intend to repeat a 100-level course in which they were not successful and is required in the Nursing Program curriculum. Topics will focus on identified areas of weakness as defined with the instructor on the first day of class. Students will care for simulated patients in the

nursing lab who represent the variety and acuity seen in the clinical of their current semester. Course content will vary for each student depending on the courses that students are preparing to repeat as well as fundamental concepts necessary in all nursing courses. All discussions will incorporate Institute of Medicine (IOM) standards, Quality and Safety Education for Nurses (QSEN) competencies and the nursing process. Students may enroll for credit up to three times. The topics will be different in each semester. Fee is required. (2 contact hours)

### **NUR-150 Nursing Arts I (2)**

Lab experiences focus on the skills performed by the licensed practical nurse according to the Illinois Department of Financial and Professional Regulation (IDFPR) Administrative Code. Specific attention is on therapeutic communication and safety in relation to ergonomics, isolation, restraints, medical asepsis, specimen collection and the administration of medications. Note: The competencies associated with the Certified Nursing Assistant program are not addressed in this course. Learners are held responsible to demonstrate those competencies as a part of the program admission requirements regarding current CNA registration. Fee is required. (4 contact hours)

Prerequisite: Admission to the Nursing Program

Corequisite: HSC-120 and NUR-140

### **NUR-151 Nursing Arts II (2)**

Lab experiences focus on health and physical assessment in relation to normal and common health alterations across the lifespan. Organization of the course will be based on functional health patterns. (4 contact hours)

Prerequisite: NUR-140 and NUR-150 Corequisite: HSC-120 and NUR-160

### **NUR-152 Nursing Arts III (1)**

Lab experiences focus on the skills performed by the licensed practical nurse according to the Illinois Department of Financial and Professional Regulation (IDFPR) Administrative Code. The course complements Nursing Arts I. Specific attention is given to the skills of surgical asepsis including Foley insertion, bladder irrigation, intravenous care, maintenance and medication administration, central line care, hyperalimentation and blood products; respiratory care including chest tubes, oral pharyngeal and tracheal suctioning. Pre- and post-operative patient education, post-partum and newborn assessment will also be emphasized. Fee is required. (2 contact hours)

Prerequisite: HSC-120, NUR-151, and NUR-160

Corequisite: HSC-140 and NUR-141

### **NUR-160 Nursing Clinical Practice I (2)**

Clinical experiences focus on the application of the knowledge, skills and attitude of the learner in relation to

the individual's common health needs in the long-term care arena with emphasis on needs related to health maintenance, safety and protection, nutrition, elimination/exchange, activity, rest, comfort and cognition/perception. Integration of Nursing Concepts I and Nursing Arts I and II will be expected of the learner in providing nursing care to the individual. The lab component of this course will focus on normal lab values and performing select diagnostic skills such as heart and lung sounds, pulse oximetry and blood glucose, and appropriate IV skills. Fee is required. (3 contact hours)

Prerequisite: NUR-140 and NUR-150 Corequisite: HSC-120 and NUR-151

#### **NUR-161 Nursing Clinical Practice II-OB (2)**

Clinical experiences focus on the application of the knowledge, skills and attitudes of the learner in relation to the patient's needs in the Obstetrics arena. Fee is required. (6 contact hours)

Prerequisite: HSC-120, NUR-151, and NUR-160

Corequisite: HSC-140, NUR-141 and NUR-152

#### **NUR-162 Nursing Clinical Practice II-MS (2)**

Clinical experiences focus on the application of the knowledge, skill and attitudes of the learner in relation to the patient's needs in the acute care arena. There is an emphasis on topics in medical surgical care. Fee is required. (9 contact hours)

Prerequisite: NUR-141 and NUR-152 Corequisite: HSC-140 and NUR-142

#### **NUR-165 Nursing Transitions I (3)**

Clinical experiences focus on application of knowledge, skills and attitudes in the roles of provider of care, manager of care and member within the profession. Emphasis is on adopting knowledge, skill and attitudes associated with coordinating care and functioning in the role of charge nurse in long-term care. Upon successful completion, the student will be a candidate for the NCLEX-PN. Fee is required. (7 contact hours)

Prerequisite: HSC-140, NUR-142, and NUR-162

#### **NUR-199 LPN-RN Transition (8)**

This is a dynamic hybrid style course designed for the licensed practical nurse (LPN) who is interested in advancing his/her career to become a registered nurse. Course content will build upon the LPN's education and work experience, addressing concepts and skills currently taught in the first year of the MVCC Associate Degree Nursing Program. Upon successful course completion, the LPN will earn proficiency credit for the first year nursing courses (NUR-140, NUR-150, NUR-151, NUR-160, NUR-141, NUR-161, NUR-142, NUR-152, NUR-162, HSC-120 and HSC-140), and the student will be eligible for enrollment in the third semester of the associate degree

nursing program. All discussions will incorporate Institute of Medicine (IOM) standards, Quality and Safety Education for Nurses (QSEN) competencies and the nursing process. Fee is required. (12 contact hours)

Prerequisite: Consent of instructor - selective admission criteria

#### **NUR-240 Nursing Concepts IV (3)**

Course discussions focus on complex care of the patient incorporating Institute of Medicine (IOM) standards, Quality and Safety Education for Nurses (QSEN) competencies and the nursing process. Attention will be given to acute, episodic and/or crisis conditions across the lifespan, with special emphasis on pediatrics. Fee is required. (3 contact hours)

Prerequisite: BIO-180 and BIO-181, NUR-142 and NUR-162 or NUR-199 all with a minimum grade of "C"

Corequisite: NUR-250 and NUR-260

#### **NUR-241 Nursing Concepts V (3)**

Course discussions focus on complex care of the individual incorporating Institute of Medicine (IOM) standards, Quality and Safety Education for Nurses (QSEN) competencies and the nursing process. Attention will be given to acute, episodic and/or crisis conditions and psychiatric needs of the patient, as well as on the needs for population-based care. Concepts discussed will address the human needs of health perception-health management pattern. (3 contact hours)

Prerequisite: NUR-240 and NUR-260 Corequisite: NUR-250 and NUR-261

#### **NUR-242 Nursing Concepts VI (3)**

Course discussions will focus on the complex care of the individual incorporating Institute of Medicine (IOM) standards, Quality and Safety Education for Nurses (QSEN) competencies and the nursing process. Attention will be given to community-based care initiatives, informatics, evidence-based practice, and crisis and emergency management. Fee is required. (3 contact hours)

Prerequisite: NUR-241, NUR-250 and NUR-261

Corequisite: NUR-262

#### **NUR-243 Nursing Concepts VII (3)**

Course discussion will focus on leadership-management concepts applicable to prioritizing, applying critical thinking in making decisions, guiding, delegating, monitoring of self and others in completing quality patient-centered care for groups and individuals. The concepts of collaboration, change, conflict prevention and resolution, ethical and legal behaviors, and professionalism will be discussed. Attention will be paid to the concepts of delegation and collaborative/interdisciplinary practice, considering legal practice standards and incorporating the Institute of Medicine (IOM) standards and Quality of Safety Education

for Nurses (QSEN) competencies. An introduction to community, public services, health care systems, health care financing and quality initiatives also will be included. (3 contact hours)

Prerequisite: NUR-242 and NUR-262 Corequisite: NUR-251

#### **NUR-245 Nursing Enrichment II Special Topics (1)**

This is a dynamic seminar style course for students who intend to repeat a 200-level course in which they were not successful and is required in the Nursing Program curriculum. Topics will focus on identified areas of weakness as defined with the instructor on the first day of the course. Students will care for simulated patients in the nursing lab who represent the variety and acuity seen in the clinical of their current semester. Course content will vary for each student depending on the courses that students are preparing to repeat, as well as fundamental concepts necessary in all nursing courses. All discussions will incorporate Institute of Medicine (IOM) Standards, Quality Safety Education for Nurses (QSEN) competencies and the nursing process. Students may enroll for credit up to three times. The topics will be different in each semester. Fee is required. (2 contact hours)

#### **NUR-250 Nursing Arts IV (2)**

Lab experiences focus on the skills performed by the registered nurse according to the Illinois Department of Financial and Professional Regulation (IDFPR) Administrative Code in the acute care and community settings. Fee is required. (4 contact hours)

Prerequisite: BIO-180 and BIO-181, NUR-142 and NUR-162 or NUR-199 all with a minimum grade of "C"  
Corequisite: NUR-240, NUR-241, NUR-260 and NUR-261

#### **NUR-251 Advanced Nursing Arts V (1)**

Lab experiences focus on the application of knowledge, skills and attitudes needed to function in the role of a novice nurse. Emphasis will be placed on the development of leadership roles, and making the transition from learner to novice practitioner. Upon successful completion the student will be a candidate for the NCLEX-RN examination. Fee is required. (2 contact hours)

Prerequisite: NUR-242 and NUR-262 Corequisite: NUR-243

#### **NUR-260 Nursing Clinical Practice III (2)**

Clinical experiences focus on the application of the knowledge, skills and attitudes of the learner in relation to the patient's needs in the pediatric and acute care arena. Fee is required. (9 contact hours)

Prerequisite: BIO-180 and BIO-181, HSC-140, NUR-142 and NUR-162 or NUR-199 all with a minimum grade of "C"  
Corequisite: NUR-240 and NUR-250

#### **NUR-261 Nursing Clinical Practice IV (2)**

Clinical experiences focus on the application of the knowledge, skills and attitudes of the learner in relation to the patient's needs in the psychiatric and acute care arena. The clinical will focus on acute care needs across the lifespan and specific experiences with individuals needing psychosocial care. Fee is required. (9 contact hours)

Prerequisite: NUR-240 and NUR-260 Corequisite: NUR-241 and NUR-250

#### **NUR-262 Nursing Clinical Practice V (3)**

Clinical experiences focus on the application of the knowledge, skills and attitudes of the learner in relation to the patient's needs in the acute care arena and community-based care, in the roles of provider of care, manager of care and member within the profession. Fee is required. (9 contact hours)

Prerequisite: NUR-241, NUR-250, and NUR-261  
Corequisite: NUR-242

### **OSA—Office Systems & Applications**

#### **OSA-100 Keyboarding & Basic Formatting (1-3)**

This course provides one-credit or three-credit instruction. The one-credit course is designed to develop basic alphabetic keyboarding skills, numeric keypad skills and fundamental keyboarding techniques. The three-credit course includes one-credit content as well as speed and accuracy development and document formatting. The skills developed in this course are necessary for success in Office Systems and Applications programs. Fee is required. (2 or 6 contact hours)

#### **OSA-102 Document Formatting (3)**

This course reinforces proper keyboarding techniques with further instruction in the creation of business letters, interoffice communications, reports, tables, and administrative documents. Emphasis is on document production and accuracy using popular word processing software. Fee is required. (4 contact hours)

Prerequisite: OSA-100 (3 credit hours) with a minimum grade of "C" or ability to keyboard 40 nwpmp by touch

#### **OSA-103 Office Language Skills (3)**

This course is designed to give the office worker a solid foundation in the basics of English grammar, punctuation, and expression. Emphasis is placed on parts of speech, sentence structure, grammar, and punctuation. Other topics include spelling, vocabulary building, capitalization, and numbers expression. The use of current dictionaries and reference materials also is presented. (3 contact hours)

Prerequisite: COM-085 with a minimum grade of "B" or appropriate placement test score

**OSA-104 Keyboarding Speed and Accuracy (1)**

This course is intended to refine keyboarding skills using an individualized diagnostic/prescriptive method for developing accuracy and speed. Emphasis is on the development of skill in the use of alphanumeric keys, symbols, and the numeric keypad. This course also introduces students to real-world data-entry projects and applications by using software which focuses on the fourth row of the keyboard (numbers and symbols) and on the numeric keypad. Fee is required. (2 contact hours)

Prerequisite: OSA-100 (3 credit hours) with a minimum grade of "C" or ability to keyboard 40 nppm by touch

**OSA-116 Microsoft Outlook (1)**

This course features the concepts, terminology, and techniques involved in utilizing a popular messaging and personal information management program, specifically Microsoft Outlook. Students will use tools and commands to send email, manage mail with folders, process messages with rules, manage contacts, manage the calendar and meetings, manage tasks, and incorporate the use of categories and Outlook data files. Students must be familiar with the Windows environment. Students who successfully complete this course will possess the skills and knowledge necessary to take the Microsoft certification exam for Outlook. Fee is required. (2 contact hours)

Prerequisite: IMS-101 or IMS-115

**OSA-122 Microsoft Excel (3)**

This course is designed to develop advanced spreadsheet application skills and techniques. Professional-looking workbooks are created with Microsoft Excel or other popular spreadsheet software. Advanced features are presented including formulas, functions, charts, templates, macros, auditing tools, and pivot tables. Students who successfully complete this course will possess the skills and knowledge necessary to take the Microsoft Excel certification exam, a globally recognized standard that certifies a valid and reliable measure of technical proficiency and expertise. Fee is required. (4 contact hours)

Prerequisite: IMS-101 or IMS-115

**OSA-125 Introduction to Website Design (3)**

This course will provide students with an understanding and ability to apply effective web design principles in the planning, building, publishing, maintaining, and publicizing of a website. Fundamental principles of typography, color theory, contrast, balance, unity, and Gestalt theory will be covered. Construction components for this course will focus on WYSIWYG editors and other web design tools. Students will learn the complete web design and development cycle from the conception of the idea of a site through the building and publishing of the site. Fee is required. (4 contact hours)

Prerequisite: MIS-111 or MIS-141

**OSA-135 Website Applications (3)**

This course will provide students with an understanding of website design and development using popular software applications. Students will use software tools and commands to design and develop web pages and sites that are organized, highly functional and aesthetically pleasing. Students will learn how to create and implement templates, themes, lists, hyperlinks, tables, forms, and multimedia. Topics including design principles, project management, working with clients, creating design plans (including wireframes and mock-ups), researching trends, and working with analytics also will be included. Fee is required. (4 contact hours)

Prerequisite: MIS-111 or MIS-141

**OSA-138 Video Editing: Adobe Premiere (3)**

This course is designed to teach the principles of digital video editing and production. Using both a conceptual and hands-on approach, students will learn how to edit and compile digital video files while understanding and employing essential steps in digital video production. Students will be exposed to storyboarding, filming techniques, capturing and importing video, incorporating audio files and tracks, markers and trimming, and ethical issues associated with digital video production. Success in the course requires familiarity with computers and strong file management skills. Students with little or no computer experience are strongly encouraged to enroll in IMS-101 prior to or concurrent with OSA-138. Fee is required. (5 contact hours)

**OSA-145 Microsoft Word (3)**

This course offers students an opportunity to develop intermediate to advanced word processing skills on a personal computer with Microsoft Word. Students will review basic word processing features such as text entry, editing, formatting, and spelling verification, and will then study topics including choosing fonts, manipulating tabs, merging documents, creating headers, footers, footnotes and endnotes, adding borders, frames and pictures, creating and using templates, writing and editing macros, and developing forms. Students should possess the ability to keyboard a minimum of 35 nppm prior to enrollment in this course. Students who successfully complete this course will possess the skills and knowledge necessary to take the Microsoft certification exam for Word. Fee is required. (4 contact hours)

Prerequisite: IMS-101 or IMS-115

**OSA-225 Microsoft Publisher (3)**

This course introduces students to the concepts, techniques, and features of the Microsoft Publisher application. Students will design publications such as flyers,

newsletters, brochures, business forms, and business cards. Other projects include integrating with Microsoft Office applications; developing an e-commerce website, publishing web pages; utilizing photo editing tools; linking and embedding objects from other applications; and publishing for print, email distribution, and web. Fee is required. (4 contact hours)

Prerequisite: IMS-101 or IMS-115

#### **OSA-230 Microsoft PowerPoint & Presentations (3)**

This course is an introduction to professional business presentations. Planning, organizing, and delivering effective presentations will be emphasized. Students will create professional-quality slide presentations using Microsoft PowerPoint and other current graphics software. Students must be familiar with the Windows environment. Students who successfully complete this course will possess the skills and knowledge necessary to take the Microsoft certification exam for PowerPoint. Fee is required. (4 contact hours)

Prerequisite: IMS-101 or IMS-115

#### **OSA-232 Introduction to Adobe Creative Suite (3)**

This course introduces the fundamental concepts and techniques of the Adobe Creative Suite or other current desktop publishing and graphics software. Adobe Illustrator, Photoshop, InDesign, and Acrobat will be included. Students will learn the tools and techniques required to create and edit raster and vector based images as well as page layout for collateral for print and the web. Topics include terminology, color, layout, design, and design principles. Students with little or no computer experience are strongly encouraged to enroll in IMS-101 or IMS-115 prior to or concurrent with OSA-232. Fee is required. (4 contact hours)

#### **OSA-234 Adobe Illustrator (3)**

This course introduces vector drawing utilizing Adobe Illustrator or other current commercial illustration software. Students master the tools and techniques used for both print and web graphics. Topics include industry terminology, color, layout, and design principles. Fee is required. (4 contact hours)

Corequisite: Registration or credit in OSA-232

#### **OSA-235 Adobe InDesign (3)**

This course is designed to further develop skills utilizing Adobe InDesign or other current desktop publishing software. The course is fast-paced and project-oriented with emphasis on independent work and decision-making in the design and layout of computer generated documents, including forms, brochures, and newsletters. Fee is required. (4 contact hours)

Corequisite: Registration or credit in OSA-232

#### **OSA-236 Adobe Photoshop (3)**

This course encompasses bitmap manipulation utilizing Adobe Photoshop or other current image editing software. Students will master a variety of tools and techniques to edit and create digital images used for print and web. Additional topics include color modes, resolution, file formats, and optimization. Basic page layout and design principles are included. Fee is required. (4 contact hours)

Corequisite: Registration or credit in OSA-232

#### **OSA-238 Adv. Video Editing: Adobe AfterEffects (3)**

This course is designed to teach advanced digital video editing and production. Using both a conceptual and hands-on approach, students will learn how to enhance, render, and compile digital video files using a variety of techniques and special effects. Students will be exposed to advanced video enhancement techniques such as keyframes, chroma keying, use of layers to animate text and shapes, motion techniques, working with mattes, and 3-D objects. Fee is required. (5 contact hours)

Prerequisite: OSA-138

#### **OSA-243 Business Writing (2)**

This course prepares students to plan, write, and revise letters, memos, reports, and other documents common in personal and business communication. Emphasis is on organization, clarity, and professionalism as well as anticipating the reader's reaction to such documents. Traditional and electronic job search techniques also are covered. Students will use the Internet as a resource for some activities. Word processing and file management skills are strongly recommended for successful completion of this course. Also recommended are OSA-103 and the ability to keyboard a minimum of 25 nwpmp. Fee is required. (3 contact hours)

#### **OSA-246 Microsoft Office Integration (3)**

This course is designed to develop advanced integrated PC application skills and techniques required for the completion of business projects. This course focuses on the use of the Microsoft Office Suite. Content includes the integration of advanced features such as merging, tables, charts, automated entries, styles, templates, forms, columns, graphics, and master documents. Students will use the Internet as a resource for some activities. This is a capstone course which should be taken near the completion of a student's program. Completion of or co-enrollment in OSA-122, OSA-230, and OSA-257 is strongly recommended for successful completion of this course. Students who successfully complete this course will possess the skills and knowledge necessary to take the Microsoft certification exam for Word. Fee is required. (4 contact hours)

Prerequisite: OSA-145

**OSA-249 QuickBooks for Office Professionals (3)**

This course will assist students in developing an understanding of accounting principles and procedures. Students will learn how each step of the accounting cycle relates to the operations of today's business office. Students will analyze and record transactions and will develop and interpret financial statements. Students will study a manual accounting system first and will then enter transaction data into a computerized accounting system and print reports. Fee is required. (4 contact hours)

**OSA-250 Records Management (2)**

This course introduces the basic filing methods and procedures needed to ensure the effectiveness of records systems. This course stresses the fundamentals of records programs to manage all phases of the records life cycle. Electronic file management is explored. (2 contact hours)

**OSA-252 Legal Documents and Terminology (3)**

This course prepares students for work in a legal office. Topics include technical and personal skills, ethical and legal considerations in the work environment, legal terminology, preparation of legal documents and business correspondence, and legal records management. This course also introduces students to online document preparation of court and state documents. Fee is required. (4 contact hours)

Prerequisite: IMS-115

**OSA-255 Administrative Office Procedures (3)**

This course is a capstone course for administrative assistant training. It provides students the opportunity to utilize and build on skills they have previously developed. OSA-255 covers decision-making competency, human relations techniques, technical and personal skills needed to meet requirements in diverse national and international offices, telecommunications and telework, records management techniques, document creation skills, organizational skills, online research skills, travel and meeting planning, formal meeting documentation preparation, presentation skills and ethical and legal considerations in the work environment. This course also introduces the student to basic transcription techniques. Fee is required. (4 contact hours)

Prerequisite: IMS-115 and OSA-103 with a minimum grade of "C"

**OSA-257 Microsoft Access (3)**

This course presents the features of Microsoft Access or other current database management systems. Topics include identifying terminology associated with database software, designing the structure of tables in a relational database, designing queries and reports, creating screen forms to facilitate data entry, and designing macros. Students will also examine database utilities used for

backing up and securing databases as well as techniques for importing and exporting data. Students must be familiar with the Windows environment and possess file management skills. Students who successfully complete this course will possess the skills and knowledge necessary to take the Microsoft certification exam for Access. Fee is required. (4 contact hours)

Prerequisite: IMS-101 or IMS-115

**OSA-258 Internship (3)**

This course is a planned and supervised career field experience related to the student's occupational program in Office Systems and Applications. The work experience will provide the student with an opportunity to utilize and strengthen technical and interpersonal skills learned in the classroom. The intern will continue to develop and enhance all aspects of his/her professionalism while on the job. The student must work a minimum 225 hours. Students are encouraged to complete OSA-260, Seminar, prior to pursuing an internship. Fee is required. (15 contact hours)

Prerequisite: Consent of instructor and 2.0 or higher GPA after completing a minimum of 50 percent of the certificate or degree requirements

**OSA-260 Seminar (1)**

This capstone, professional development course helps students sort through the many career options available in today's offices. Included are tips for polishing their professional images and engaging in productive communication. Students outline the difference between a job and a career, explore areas of specialization, and prepare for job interviews. Ethics, teamwork, certification, business etiquette and protocol, and changes in the workplace are examined. Students utilize the World Wide Web extensively when completing assignments. This course is a capstone course and should be taken near the completion of the certificate or degree program and is recommended for students planning to enroll in OSA-258, Internship. (1 contact hour)

Prerequisite: OSA-102 and OSA-103

**PEH—Physical Education & Health****PEH-101 Adaptive Physical Education (1)**

Introduces fundamental skills, modified recreational games, dance and fitness, and aquatics for the benefit of physical exercise and leisure-time activity. Fee is required. (2 contact hours)

**PEH-105 Physical Fitness (1)**

This course is designed to build fitness knowledge and level by introducing students to exercise workouts involving cardiovascular conditioning, weight training and flexibility. Students will learn to use free weights, weight machines and cardio exercise machines. Student must have an active

Health, Fitness & Recreation Center membership to enroll in this course. Full-time students enrolled in 12 or more credit hours during the current semester have an active membership. Part-time students enrolled in fewer than 12 credit hours during the current semester must pay the current Health, Fitness & Recreation Center membership fees. (2 contact hours)

Corequisite: Student must first register for the noncredit HF3-100 PEH Open Schedule Orientation, then register for PEH class. A medical release may be required.

#### **PEH-107 Introduction to Group Fitness (1)**

This course is designed for students interested in learning and achieving fitness through cardiovascular, strength, and flexibility training at an introductory low level. Student must have an active Health, Fitness & Recreation Center membership to enroll in this course. Full-time students enrolled in 12 or more credit hours during the current semester have an active membership. Part-time students enrolled in fewer than 12 credit hours during the current semester must pay the current Health, Fitness & Recreation Center membership fees. (2 contact hours)

#### **PEH-108 Weightlifting (1)**

This course is designed to give the student knowledge of weight training guidelines and basic skills which will allow him/her to successfully perform an individual weightlifting program. Student must have an active Health, Fitness & Recreation Center membership to enroll in this course. Full-time students enrolled in 12 or more credit hours during the current semester have an active membership. Part-time students enrolled in fewer than 12 credit hours during the current semester must pay the current Health, Fitness & Recreation Center membership fees. (2 contact hours)

Corequisite: Student must first register for the noncredit HF3-100 PEH Open Schedule Orientation, then register for PEH class. A medical release may be required.

#### **PEH-110 Ballet I (1)**

Learn the principles of ballet and elements of technique, through barre and center work, to develop fundamental dance skills acquired through beginning dance techniques, combinations and choreography. Student must have an active Health, Fitness & Recreation Center membership to enroll in this course. Full-time students enrolled in 12 or more credit hours during the current semester have an active membership. Part-time students enrolled in fewer than 12 credit hours during the current semester must pay the current Health, Fitness & Recreation Center membership fees. (2 contact hours)

#### **PEH-111 Ballet II (1)**

Continuation of beginning ballet with additional elements of technique, in barre and center work, to further develop fundamental ballet skills previously acquired into

intermediate levels of dance techniques, combinations and choreography. Student must have an active Health, Fitness & Recreation Center membership to enroll in this course. Full-time students enrolled in 12 or more credit hours during the current semester have an active membership. Part-time students enrolled in fewer than 12 credit hours during the current semester must pay the current Health, Fitness & Recreation Center membership fees. (2 contact hours)

Prerequisite: PEH-110 or consent of instructor

#### **PEH-112 Jazz Dance I (1)**

Learn the principles of jazz dance and elements of technique to develop fundamental jazz dance skills acquired through beginning dance techniques, combinations and choreography. Student must have an active Health, Fitness & Recreation Center membership to enroll in this course. Full-time students enrolled in 12 or more credit hours during the current semester have an active membership. Part-time students enrolled in fewer than 12 credit hours during the current semester must pay the current Health, Fitness & Recreation Center membership fees. (2 contact hours)

#### **PEH-113 Jazz Dance II (1)**

Continuation of beginning jazz with additional elements of technique and further development of fundamental jazz dance skills previously acquired into intermediate levels of dance techniques, combinations and choreography. Student must have an active Health, Fitness & Recreation Center membership to enroll in this course. Full-time students enrolled in 12 or more credit hours during the current semester have an active membership. Part-time students enrolled in fewer than 12 credit hours during the current semester must pay the current Health, Fitness & Recreation Center membership fees. (2 contact hours)

Prerequisite: PEH-112 or consent of instructor

#### **PEH-117 Modern Creative Dance I (1)**

This course teaches concepts of modern dance, creative movement, dance patterns and techniques. Explore qualities of movement, improvisation and ability to create and explore body awareness through movement and self expression. Student must have an active Health, Fitness & Recreation Center membership to enroll in this course. Full-time students enrolled in 12 or more credit hours during the current semester have an active membership. Part-time students enrolled in fewer than 12 credit hours during the current semester must pay the current Health, Fitness & Recreation Center membership fees. (2 contact hours)

#### **PEH-118 Modern Creative Dance II (1)**

Continuation of beginning modern dance with further exploration of creative movements, patterns, and the ability to create and explore body awareness through movement and self expression at an intermediate level. Student must

have an active Health, Fitness & Recreation Center membership to enroll in this course. Full-time students enrolled in 12 or more credit hours during the current semester have an active membership. Part-time students enrolled in fewer than 12 credit hours during the current semester must pay the current Health, Fitness & Recreation Center membership fees. (2 contact hours)

Prerequisite: PEH-117 or consent of instructor

#### **PEH-120 Introduction to Body/Mind Fitness (1)**

Learn a progressive series of exercises designed to increase strength, flexibility, and balance for the body, mind, and spirit. Movements are derived from the classic disciplines of yoga, Pilates, traditional stretching, and meditation. The course foundation is in unified body training, core stabilization, and mindful movement. Student must have an active Health, Fitness & Recreation Center membership to enroll in this course. Full-time students enrolled in 12 or more credit hours during the current semester have an active membership. Part-time students enrolled in fewer than 12 credit hours during the current semester must pay the current Health, Fitness & Recreation Center membership fees. (2 contact hours)

#### **PEH-122 Yoga Basics and Beyond (1)**

In this course students will study the physical and philosophical foundations of yoga, the ancient art of unifying the body and mind. Learn a progressive series of asana, breathing techniques and mind-centering methods designed to enhance the health and wellness of the mind, body and spirit. The course foundation will explore the liberating power of the fluid body, restore natural rhythm to the breath, and unleash transformative energy to help navigate life's challenges with grace, calmness and confidence. Student must have an active Health, Fitness & Recreation Center membership to enroll in this course. Full-time students enrolled in 12 or more credit hours during the current semester have an active membership. Part-time students enrolled in fewer than 12 credit hours during the current semester must pay the current Health, Fitness & Recreation Center membership fees. (2 contact hours)

#### **PEH-130 Basketball I (1)**

Covers knowledge, skills and strategies used in basketball. Fee is required. (2 contact hours)

#### **PEH-131 Volleyball (1)**

Basic knowledge, fundamental skills and team strategies used in power volleyball are covered. Fee is required. (2 contact hours)

#### **PEH-132 Fundamentals of Football (2)**

Learn offensive and defensive systems used in modern college football. Analyze new techniques and philosophies

employed by modern coaches. Fee is required. (3 contact hours)

#### **PEH-133 Basketball II (1)**

Skills, knowledge and strategies used in college-level competitive basketball are explored. Fee is required. (2 contact hours)

Prerequisite: PEH-130

#### **PEH-134 Baseball (2)**

Introduces basic baseball concepts, teaching progressions of fundamental baseball skills, team offensive and defensive strategies, and conditioning. Fee is required. (3 contact hours)

#### **PEH-138 Cardiovascular Conditioning (1)**

This course is designed to help students develop and maintain cardio respiratory fitness through regular aerobic exercise using various types of cardiovascular equipment. Student must have an active Health, Fitness & Recreation Center membership to enroll in this course. Full-time students enrolled in 12 or more credit hours during the current semester have an active membership. Part-time students enrolled in fewer than 12 credit hours during the current semester must pay the current Health, Fitness & Recreation Center membership fees. (2 contact hours)

Corequisite: Student must first register for the noncredit HF3-100 PEH Open Schedule Orientation, then register for PEH class. A medical release may be required.

#### **PEH-140 Weight Training (1)**

This course is designed to help students develop their own weight training program by expanding their knowledge of weight training guidelines and principles for developing muscular strength, endurance, power and muscle symmetry through the use of free weights, weight machines and other training equipment. Student must have an active Health, Fitness & Recreation Center membership to enroll in this course. Full-time students enrolled in 12 or more credit hours during the current semester have an active membership. Part-time students enrolled in fewer than 12 credit hours during the current semester must pay the current Health, Fitness & Recreation Center membership fees. (2 contact hours)

Corequisite: Student must first register for the noncredit HF3-100 PEH Open Schedule Orientation, then register for PEH class. A medical release may be required.

#### **PEH-141 Classic Cardio Fitness (1)**

This course is designed for students interested in achieving fitness through cardiovascular strength and flexibility training at low to moderate levels. Student must have an active Health, Fitness & Recreation Center membership to enroll in this course. Full-time students enrolled in 12 or more credit hours during the current semester have an

active membership. Part-time students enrolled in fewer than 12 credit hours during the current semester must pay the current Health, Fitness & Recreation Center membership fees. (2 contact hours)

#### **PEH-142 Cardio Cross Training (1)**

This course is designed for students interested in achieving fitness through cardiovascular conditioning, strength/endurance and flexibility training at low to moderate levels while engaging in a variety of cross training exercises. Student must have an active Health, Fitness & Recreation Center membership to enroll in this course. Full-time students enrolled in 12 or more credit hours during the current semester have an active membership. Part-time students enrolled in fewer than 12 credit hours during the current semester must pay the current Health, Fitness & Recreation Center membership fees. (2 contact hours)

#### **PEH-143 Circuit Training Fitness (1)**

This course is designed for students interested in achieving fitness through resistance training and low, moderate, or high-intensity cardiovascular conditioning through circuit training. Circuit training is designed to provide a whole-body workout through completion of all prescribed exercises within the circuit program. Student must have an active Health, Fitness & Recreation Center membership to enroll in this course. Full-time students enrolled in 12 or more credit hours during the current semester have an active membership. Part-time students enrolled in fewer than 12 credit hours during the current semester must pay the current Health, Fitness & Recreation Center membership fees. (2 contact hours)

#### **PEH-144 Dance Cardio Fitness (1)**

This course is designed for students interested in achieving fitness through cardiovascular, strength and flexibility training at moderate to high levels, while engaging in a variety of dance styles and elements. Student must have an active Health, Fitness & Recreation Center membership to enroll in this course. Full-time students enrolled in 12 or more credit hours during the current semester have an active membership. Part-time students enrolled in fewer than 12 credit hours during the current semester must pay the current Health, Fitness & Recreation Center membership fees. (2 contact hours)

#### **PEH-150 Introduction to Physical Education (3)**

Open to physical education majors, this course encourages professional understanding of the scope and nature of physical education and related fields. (3 contact hours)

#### **PEH-151 Lifetime Activities, Net Games (2)**

Explore basic skills, strategies and rules of net games: badminton, tennis, paddleball and table tennis. Emphasizes teaching methods and techniques. Fee is required. (4 contact hours)

#### **PEH-152 Lifetime Activities-Conditioning (2)**

Fundamentals of conditioning and aquatic activities, organization of programs and teaching methods are included. Fee is required. (4 contact hours)

#### **PEH-153 Lifetime Activities-Archery & Golf (2)**

Explore basic form, techniques, terminology, and equipment used in archery and golf. Emphasizes teaching methods and course organization. Fee is required. (4 contact hours)

#### **PEH-154 Team Sports (2)**

Learn basic skills, strategies, rules, and officiating procedures used in team sports such as basketball and volleyball. Emphasizes teaching methods and techniques. Fee is required. (4 contact hours)

#### **PEH-160 Fundamentals of Human Movement (3)**

This course presents an analysis of human movement with emphasis on the muscular and skeletal systems. Topics covered include basic movement activities, human movement in sports and fitness and requirements of successful motor performance. Fee is required. (4 contact hours)

#### **PEH-161 Fitness Methodology (4)**

This course emphasizes the methodology and applications used with cardio-respiratory, muscular strength and endurance development, flexibility and relaxation training exercises. The course explores fitness through practical and theoretical application in basic physiology and kinesiology as it relates to movement and exercise. Fee is required. (5 contact hours)

Corequisite: Registration or credit in PEH-160

#### **PEH-162 Fitness Testing (3)**

This course examines methods for testing and evaluating individual health status and fitness levels. Students will monitor, conduct, and interpret fitness tests in cardio-respiratory, muscular strength/endurance, flexibility, and body composition. As a requirement for completing this course, students must obtain a current CPR certificate. Fee is required. (4 contact hours)

#### **PEH-163 Fitness Programming (3)**

This course explores exercise programming methods, theories and guidelines for all fitness components for healthy and special populations through practical teaching experiences. It emphasizes developing, implementing, and analyzing exercise programs for cardio-respiratory, muscular strength and endurance, and flexibility training. Students will gain the knowledge necessary to become an effective and successful fitness/personal trainer. (4 contact hours)

Prerequisite: PEH-161

**PEH-164 Exercise for Special Populations (3)**

This course is designed to introduce and prepare exercise specialists in the skills, methods and practical guidelines needed for exercise testing and exercise program design for individuals with predisposed conditions and chronic diseases. (4 contact hours)

Prerequisite: PEH-160 and PEH-161

**PEH-165 Fitness Business Skills & Promotion (3)**

This course is designed to provide business concepts for personal training students to develop, market and maintain a small business. Topics include legal issues, ethical conduct and social responsibilities. This course also analyzes promotion, including communication, advertising, and public relations, as they relate to the fitness field. (3 contact hours)

**PEH-170 First Aid (3)**

Designed to teach students the currently accepted American Heart Association and National Safety Council procedures and principles to be followed in the event of an accident. Upon successful completion students will receive a CPR/AED card from the American Heart Association and a First Aid card from the National Safety Council. Fee is required (3 contact hours)

**PEH-171 A Healthy Lifestyle and You (3)**

This is a self-awareness course that provides the student with opportunities to acquire the knowledge and tools needed to make intelligent decisions to live a healthy life. (3 contact hours)

**PEH-172 Nutrition for Today (3)**

This course examines nutrition theory in relation to health, wellness and disease prevention. It examines the science of nutrition including digestion and absorption of macro and micro nutrients. The course covers the relationship between nutrition, health, wellness and disease prevention. Students will study various methods of establishing good nutritious patterns. (3 contact hours)

**PEH-175 Small Group Fitness Training (2)**

This course is designed for students who wish to integrate the study of small group fitness training methodologies, exercise science and practical training experience. This course prepares students for national certification and potential fitness careers. (3 contact hours)

**PEH-181 Fundamentals of Rhythmic Movement (2)**

Develops basic dance skills and techniques for primary and intermediate grade levels. Emphasizes teaching methods and organization. Fee is required. (2 contact hours)

**PEH-190 Outdoor Recreation & Nature Study (3)**

Explore objectives, organization, techniques, counseling, and skills of outdoor recreation. Includes camping and survival skills, fishing and outdoor education activities. Fee is required. (3 contact hours)

**PHB—Phlebotomy****PHB-105 Phlebotomy for Health Care Providers (1)**

This course is intended to serve graduates of the Phlebotomy program, phlebotomists, and other certified or licensed healthcare workers who are interested in refreshing their phlebotomy skills, preparing to take the Phlebotomy certification exam, or those that need continuing education for the certification maintenance program. Instruction is provided in two skill areas, namely fundamentals of blood collection and venous access techniques. Students are awarded one credit hour upon successful completion of the lecture and laboratory components. This course does not lead to certification. Fee is required. (1.5 contact hours)

Prerequisite: PHB-112 or consent of instructor

**PHB-110 Principles & Practice of Phlebotomy (6)**

This course is a six-credit-hour course which consists of lecture and laboratory components. Lecture topics addressed in this course include proper patient and specimen identification, medical terminology, anatomy and physiology appropriate to the practice of phlebotomy, professionalism, communication skills, safety, infection control, blood collection equipment and blood collection procedures, including venipuncture, skin puncture and arterial puncture, collection of certain body fluids, including urine, feces and sputum, specimen transport and storage requirements, quality assurance and quality control. The laboratory component includes practice in the procedures discussed in the lecture component. Successful completion of PHB-110 as defined by program faculty is a prerequisite for PHB-112. Fee is required. (8 contact hours)

Prerequisite: MRT-110 with a minimum grade of "C". Students must be 18 years of age before the start of class

**PHB-111 Phlebotomy Clinical Practice Seminar (2)**

This course is designed as a capstone experience for students assigned to a phlebotomy clinical rotation. Discussion topics include student reaction to supervised clinical experiences, professional issues, communication skills appropriate for a diverse patient population, and application of customer service skills. (2 contact hours)

Prerequisite: PHB-110 Corequisite: PHB-112

**PHB-112 Phlebotomy Clinical Practice (2)**

This course is a two-credit-hour course consisting of 120 contact hours of supervised clinical practice of phlebotomy at one of the Phlebotomy Program's clinical affiliate sites.

This course provides the student with additional phlebotomy practice in a clinical setting and is designed to develop blood specimen collection skills to a level consistent with entry into the profession. Clinical experiences will include experience collecting a variety of specimens from a variety of patient types. Fee is required. (8 contact hours)

Prerequisite: PHB-110 Corequisite: PHB-111

## PHI—Philosophy

### PHI-101 Introduction to Philosophy (3)

Introduces philosophical questions and philosophical ways of reasoning. Examines some key notions in the history of Western thought in areas of metaphysics, epistemology and ethics. (3 contact hours)

IAI Code: H4900

### PHI-110 Intro to Formal Logic (3)

Introduces formal and symbolic logic, including syllogistic, propositional and predicate inference. (3 contact hours)

### PHI-111 Critical Thinking (3)

Introduces principles and methods for rational argument and effective problem solving. (3 contact hours)

IAI Code: H4 906

### PHI-115 Approaches to Truth (3)

A survey of methods. Logical, intuitive, revelatory, scientific, and mystical approaches to truth and knowledge. (3 contact hours)

### PHI-120 World Religions (3)

Explores the principal doctrines (world view), typical behavior (lifestyle) and sphere of influence of Christianity, Islam, Judaism, Hinduism, Confucianism, Buddhism, and some tribal religions. Emphasizes comparison and examines themes such as view of God, condition of man, requirements for moral life, and relation to social and political forms. (3 contact hours)

IAI Code: H5904N

### PHI-125 Ethics (3)

This course will serve as an introduction to ethical philosophy and will include the study of several influential thinkers and various ethical theories. Key topics that will be discussed include social responsibility, moral standards and behaviors, natural law and ancient and modern theories of the moral life, as well as several contemporary moral issues. (3 contact hours)

IAI Code: H4904

### PHI-200 Philosophy of Religion (3)

This course is primarily an examination of western religious belief and religious questions from a philosophical point of view. It will include such topics as: the nature of God (theistic vs non-theistic views), standard proofs of God's existence, standard objections to proofs of God's existence, the nature of religious or mystical experience, the roles of faith and reason, exclusivity vs. inclusivity, and religious pluralism in modern society. Previous coursework in philosophy would be beneficial but is not required. (3 contact hours)

IAI Code: H4 905

### PHI-210 Philosophy: Ancient to Enlightenment (3)

This course chronologically surveys philosophy from Ancient Greece to the 1700s. Students will study major ideas, movements, philosophers, and problems while focused on their development within a specific historical and social context. Topics will include the works of individual philosophers such as Plato, Aristotle, Aurelius, Aquinas, and Descartes. Previous coursework in philosophy is beneficial but not required. (3 contact hours)

IAI Code: H4 901

### PHI-211 Philosophy: Enlightenment to Present (3)

This course chronologically surveys philosophy from the Enlightenment (1700s) to the present. Students will study major ideas, movements, philosophers, and problems while focused on their development within a specific historical and social context. Topics will include the works of individual philosophers such as Locke, Hume, Kant, Kierkegaard, Nietzsche, and De Beauvoir. (3 contact hours)

IAI Code: H4 902

### PHI-225 Bioethics (3)

Introduces problems in ethics surrounding developments in medicine and biological research. Introduces major ethical systems and encourages ethical methodology. This course is case-oriented. (3 contact hours)

### PHI-226 Business Ethics (3)

This case-oriented course introduces moral problems associated with industry and commerce. Introduces major ethical systems and encourages ethical methodology. Note: Only three credit hours can be earned for either BUS-226 or PHI-226. Duplicate credit in both courses is not awarded. (3 contact hours)

## PHS—Physical Science

### PHS-101 Physical Science (4)

Introduces chemistry, physics and astronomy for nonscience majors. This course includes a one-hour laboratory component. Fee is required. (5 contact hours)

Prerequisite: MTH-095 or 1 year of high school algebra IAI Code: P9 900L

### PHS-103 Descriptive Astronomy (4)

Studies structure, motions, origin, and evolution of the solar systems, stars, galaxies, and the universe. Requires some night observations. This course includes a one-hour laboratory component. Fee is required. (5 contact hours)

IAI Code: P1 906L

### PHS-105 Astronomy—Cosmos (3)

Explores astronomy and space exploration in the broadest human context. Embraces many sciences and cultures, and provides cosmic perspective for the planet Earth. Investigates diverse topics such as cosmic catastrophes, travel to the stars, cosmic influences on evolution, collisions of the continents, origin of life, contact with other civilizations, birth and death of stars and galaxies, future of the earth, and origin and fate of the universe. (3 contact hours)

## PHY—Physics

### PHY-106 Fundamentals of Physics (3)

An examination of physical principles and phenomena with applications in mechanics, properties of matter, heat, sound, electricity, magnetism, light, and quantum physics. The course does not assume that students have had high school physics and is intended for nonscience liberal arts and technical students. It will include large group mini-labs and demonstrations. PHY-106 taken concurrently with PHY-107 Fundamentals of Physics Lab also is designed as an entry-level course for PHY-150, standard college physics. PHY-107 taken concurrently with PHY-106 will satisfy the physical science general education requirement. Fee is required. (4 contact hours)

Prerequisite: 1 year of high school algebra IAI Code: P1 900

### PHY-107 Fundamentals of Physics Lab (1)

A laboratory examination of physical principles and phenomena in mechanics, properties of matter, heat, sound, electricity, magnetism, light, and quantum physics. The course does not assume that students have had high school physics, and is intended for nonscience liberal arts and technical students. PHY-107 taken concurrently with PHY-106 Fundamentals of Physics is also designed as an entry-level course for PHY-150, standard college physics.

PHY-106 taken concurrently with PHY-107 will satisfy the physical science general education requirement. Fee is required. (2 contact hours)

Corequisite: Registration or credit in PHY-106 or consent of instructor IAI Code: P1 900L

### PHY-110 Mechanical Universe I (3)

This introductory course in physics covers mechanics, heat, waves, and forces using approximately 30 half-hour videotapes. Satisfies the science requirement for the nonscience major. PHY-111 Mechanical Universe I Lab taken concurrently with PHY-110 will satisfy the physical science general education requirement. (3 contact hours)

Prerequisite: MTH-095 IAI Code: P1 900

### PHY-111 Mechanical Universe I Lab (1)

This transfer physics lab course is intended to be correlated with PHY-110 but may be taken separately. Covers scientific experiments and observations that enhance an understanding of mechanics, heat, waves, and forces. Home experiments and field trips may be substituted for regularly scheduled sessions in the physics lab. PHY-110 Mechanical Universe I taken concurrently with PHY-111 will satisfy the physical science general education requirement. (2 contact hours)

Prerequisite: MTH-095 or consent of instructor Corequisite: Registration in PHY-110 or consent of instructor IAI Code: P1 900L

### PHY-112 Mechanical Universe II (3)

This introductory physics course covers light, electricity, magnetism, quantum theory, atomic structure, relativity, and nuclear energy. (3 contact hours)

Prerequisite: MTH-095 and PHY-110 or consent of instructor

### PHY-113 Mechanical Universe II Lab (1)

An introductory laboratory in physics which covers scientific experiments and observations to enhance understanding of electricity, magnetism, waves, light, quantum theory, and nuclear energy developed in PHY-112. (2 contact hours)

Prerequisite: MTH-095 and PHY-111 or consent of instructor Corequisite: Registration in PHY-112 or consent of instructor

### PHY-150 Mechanics, Heat & Sound (4)

This general college physics course for liberal arts or science majors covers motion, momentum, work, power, energy, fields, heat, and forces. This course includes a one-hour laboratory component. Fee is required. (6 contact hours)

Prerequisite: MTH-098 or two years of high school algebra IAI Code: P1 900L

**PHY-151 Electricity Magnetism & Light (4)**

Direct Current circuits, radiation, relativity, nuclear and elementary particles, and quantum theory are examined. Fee is required. (6 contact hours)

Prerequisite: PHY-150

**PHY-203 Mechanics (4)**

Introduces physics with calculus for science, engineering and math majors. Explores simple equations of motion, vectors, forces in equilibrium, and the laws of dynamics. Applications including linear, rotational and harmonic motions. Introduces hydrostatics and hydrodynamics. One year of high school physics is strongly recommended. This course includes a one-hour laboratory component. Fee is required. (6 contact hours)

Prerequisite: MTH-150 IAI Code: P2 900L

**PHY-204 Heat, Electricity and Magnetism (4)**

Second in the introductory physics sequence for science, engineering and math majors, thermal properties of matter and thermodynamics are covered. Electric and magnetic fields; electric and magnetic properties of matter; the laws of electricity and magnetism; alternating, direct, and transient currents; and electromagnetic oscillations are studied. Fee is required. (6 contact hours)

Prerequisite: PHY-203

**PHY-205 Waves and Modern Physics (4)**

Third in the introductory physics sequence for science, engineering and math majors, properties and equations of waves applied to sound and light are examined. Covers relativistic mechanics, and basic atomic and nuclear structure. Emphasizes quantum nature of applicable laws. Fee is required. (6 contact hours)

Prerequisite: PHY-204

**PSC—Political Science****PSC-103 Introduction to Political Science (3)**

Introduces the principles of politics and government. Explores the role of United States citizens in the political process. Ideologies, the role of the media in politics, political development, and analysis of politics will be discussed. (3 contact hours)

IAI Code: S5 903

**PSC-110 American National Government (3)**

Explores basic principles of the Constitution, and structure and functions of the federal government. Includes Congress, presidency and judiciary. The roles of political parties, pressure groups and public opinion in American politics are examined. (3 contact hours)

IAI Code: S5 900

**PSC-115 State and Local Government (3)**

Study basic principles of state constitutions. Structure and function of state legislatures, courts and chief executives; structure and functions of city, county and other local governments; and the role of political parties, pressure groups and public opinion are covered. (3 contact hours)

IAI Code: S5 902

**PSC-210 International Relations (3)**

Introduces international relations, foreign policies, international organizations, conflict, and accommodation in the international system. (3 contact hours)

IAI Code: S5 904

**PSC-212 Latin American Politics (3)**

Caribbean and Central and South American nations' historical development and current social, economic and political problems with focus on governments, politics and policies are included. (3 contact hours)

**PSC-215 Comparative Government (3)**

Introduces comparative governments and institutions in major European democracies, Communist systems and the Third World. (3 contact hours)

IAI Code: S5 905

**PSC-225 Non-Western Comparative Politics (3)**

Examine and compare government and politics in Asia, Africa, the Middle East, and Latin America within region-specific historical, social, and economic contexts and the global environment. (3 contact hours)

IAI Code: S5 906N

**PSC-245 Politics of the Middle East (3)**

This course examines the contemporary politics of the Middle East and the influence of the region in international relations. The course explores domestic and foreign policies within and between states in the regions. (3 contact hours)

IAI Code: S5 906N

**PSC-280 Introduction to Political Philosophy (3)**

This course focuses on classical and modern political theorists, and emphasizes concepts such as justice, equality, power, liberty and rights. (3 contact hours)

IAI Code: PLS913

**PSG—Sleep Technology****PSG-105 Polysomnography Patient Care I (4)**

This course is the first in a series for the Sleep Technology A.A.S. Degree Program. This course introduces the student to the sleep disorders center environment. The course

provides instruction in patient care technologies, lab safety, and professional and ethical behavior. The course examines sleep architecture, sleep staging, and sleep physiology. Explores sleep disorders and provides an overview of sleep medicine. Provides laboratory practice in patient preparation for polysomnography testing, including electrode placement, biocalibration and running a study. Develops awareness of sleep as a public health issue. Discusses technologists' roles and responsibilities as sleep health advocates. (6 contact hours)

Prerequisite: Admission into the Sleep Technology A.A.S. degree program Corequisite: PSG-110 and PSG-112

### **PSG-110 Cardiopulmonary Physiology (3)**

Provides the foundations for clinical practice in respiratory care or sleep technology. Describes the respiratory system with emphasis on ventilation and respiration during wakefulness, sleep, and in disease. Discusses basic cardiovascular anatomy and physiology in health and disease. Indications, hazards, and benefits of oxygen therapy, non-invasive ventilation, and positive airway pressure for breathing-related sleep disorders will be presented. (3 contact hours)

Prerequisite: Admission to the Sleep Technology A.A.S. degree program Corequisite: PSG-105 and PSG-112

### **PSG-112 Sleep Study Scoring (2)**

This course is designed to prepare sleep technology students to score sleep studies according to the American Academy of Sleep Medicine rules, terminology, and technical specifications. Emphasis is on visual rules for staging sleep, scoring arousals, cardiac events, movements, and respiratory events for adult patients. (2 contact hours)

Prerequisite: Admission into the Sleep Technology A.A.S. degree program or consent of instructor Corequisite: PSG-105 and PSG-110 or consent of instructor

### **PSG-115 Polysomnography Patient Care II (4)**

This course is structured to provide didactic instruction in advanced aspects of sleep technology, including pediatrics, PAP titration, oxygen administration, staging and scoring routine and split night studies, MSLT and MWT studies. Discuss laboratory emergencies, sleep center management, patient education, sleep disorders prevalence, etiology, pathophysiology, diagnosis, treatment, and prevention. Sleep and medical disorders are investigated. This course also provides an in-depth view of sleep as a public health issue and the role of the sleep technologist in advocacy for and enhancement of the profession. This course provides the cognitive skills required for students to perform polysomnography in a clinical setting. (4 contact hours)

Prerequisite: PSG-105, PSG-110, and PSG-112. Current American Heart Association Health Care Provider CPR

certification. Complete History and Physical form including insurance and drug screening. Completed criminal background check. Corequisite: PSG-120

### **PSG-120 Sleep Technology Clinical I (4)**

Provides laboratory and sleep disorders center experience in sleep technology, correlating principles taught in PSG-115. Provides hands-on instruction in use of specialized instruments to measure and record physiological parameters during a sleep study. Experience includes online monitoring and analysis of polysomnogram recordings, and patient interaction. Examines recognition of and appropriate response to critical events that can occur in sleep. Fee is required. (20 contact hours)

Prerequisite: PSG-105, PSG-110 and PSG-112. Current American Heart Association Health Care provider CPR certification. Complete History and Physical form including insurance and drug screen. Criminal background check. Corequisite: PSG-115

### **PSG-125 Pediatric Sleep (2)**

This course is the study of pediatric sleep technology, including performance of pediatric sleep studies, staging and scoring of pediatric polysomnograms, and sleep disorders in the pediatric population. Normal sleep from the stages of newborn to young adult population is studied. Communication with patients and caregivers is emphasized. (2 contact hours)

Prerequisite: PSG-115 and PSG-120 or consent of instructor Corequisite: Registration or credit in PSG-135 or consent of instructor

### **PSG-135 Sleep Disorders (3)**

This course focuses on the etiology, cardinal manifestations, diagnosis, treatment and outcomes of sleep disorders. The role of the sleep technologist in the interprofessional management of the sleep-disordered patient is stressed. Sleep deprivation and public health and safety are emphasized. Prevention and patient and public education are stressed. (3 contact hours)

Prerequisite: PSG-115 and PSG-120 or consent of instructor Corequisite: Registration or credit in PSG-125 or consent of instructor

### **PSG-210 Clinical Sleep Education (3)**

This course covers aspects of patient education including patient-centered teaching, motivation, cultural issues, effective communication, teaching through the lifespan, health literacy, support groups, and building a patient education team. Adherence to prescribed therapy as an outcome of effective teaching is emphasized. (3 contact hours)

Prerequisite: PSG-125 and PSG-135 or consent of instructor Corequisite: Registration or credit in PSG-220 or consent of instructor

**PSG-220 Sleep Technology Clinical II (2)**

This course provides sleep center patient care experience with emphasis on positive airway pressure (PAP) and oral appliance titrations, daytime studies, multiple sleep latency and maintenance of wakefulness tests. Experience with out-of-center testing, patient, PAP coordination, patient outcomes, record scoring, and record-keeping is emphasized. (12 contact hours)

Prerequisite: PSG-125 and PSG-135 Corequisite: Registration or credit in PSG-210

**PSG-225 Sleep Center Management (3)**

This course introduces the principles of management in health care, particularly at sleep centers. Topics include change in healthcare organizations, planning and decision-making, human resource functions, ethics, budgeting, productivity, accreditation compliance, outcomes assessment, committees and teams, motivation, communication, leadership, and training and development. (3 contact hours)

Prerequisite: PSG-210 and PSG-220 or consent of instructor Corequisite: Registration or credit in PSG-230 or consent of instructor

**PSG-230 Sleep Technology Clinical III (2)**

This course provides sleep center experience in all aspects of patient care. Emphasis is placed on advanced positive airway pressure and oral appliance titrations, effective patient education for enhanced adherence and outcomes, and working as part of the healthcare team. Students will be exposed to accreditation standards and compliance, budgeting, staffing, and general management and supervisory functions. Patient and professional advocacy will be stressed. (12 contact hours)

Prerequisite: PSG-210 and PSG-220 Corequisite: Registration or credit in PSG-225

**PSY—Psychology****PSY-101 Introduction to Psychology (3)**

This course covers psychological theories and scientific methods used in the study of behavior of man and animals. Study sensation and perception, motivation, emotions, learning, personality, and social interaction. (3 contact hours)

IAI Code: S6 900

**PSY-104 Life-Span Developmental Psychology (3)**

Study the neurological, physical, cognitive, social, and emotional development of humans from conception through childhood, adolescence, adulthood, and old age. Emphasizes normal development stages and patterns of adjustment to differing lifetime demands. The theories and

principles of human development are examined in light of contemporary research. (3 contact hours)

IAI Code: S6 902

**PSY-105 Child Psychology (3)**

This course concerns the study of human development from conception through adolescence. It includes studying research methods and developmental theories. All the major areas of development (physical, social, emotional and cognitive) and the interaction among these areas will also be addressed. (3 contact hours)

IAI Code: S6 903

**PSY-106 Adolescent Psychology (3)**

Study adolescent development with emphasis on biological, cognitive, interpersonal, and psychological tasks within socially and culturally defined contexts such as the family, peer group, work, and school. Psychological, cultural and historical perspectives are examined within the framework of current research. (3 contact hours)

IAI Code: S6 904

**PSY-110 Group Dynamics (1)**

Study theory and experience in the functioning of groups. Small-group leadership, group-work theory, group formation, group process, group roles, communication, group cooperation, and individual functioning within a group are covered. (2 contact hours)

**PSY-199 Special Topics in Psychology (3)**

This course addresses the in-depth study of special topics in psychology that do not have specific courses in the catalog. This course will provide students with advanced knowledge and understanding of selected topics in psychology. Course content will vary depending on the topic being studied. (3 contact hours)

**PSY-201 Industrial/Organizational Psychology (3)**

Students will learn principles and techniques of psychology applied to activities and problems in business and industry. This course emphasizes interpersonal and intergroup relationships for employee morale and motivation. (3 contact hours)

**PSY-202 Social Psychology (3)**

Study basic psychological determinants of behavior in interpersonal relations and their influence on social interaction, attitudes, values, and social events. Investigates influence of culture on the development of the personality. (3 contact hours)

Prerequisite: PSY-101 IAI Code: S8 900

**PSY-205 Abnormal Psychology (3)**

This course explores cause, description and treatment of psychological disorders. Emphasis is on various forms of neuroses, psychoses, personality disorders, psychosomatic reactions, and organic brain syndrome. (3 contact hours)

Prerequisite: PSY-101 IAI Code: PSY905

**PSY-210 Adult Psychology (3)**

Examines the development of the normal adult from young adulthood through old age. Concludes with topics of death and dying. Includes changes in biological, cognitive, social and personality characteristics, work and leisure, relationships, and family. (3 contact hours)

Prerequisite: PSY-101 or PSY-105 IAI Code: S6 905

**PSY-211 Human Sexuality (3)**

Studies psychological aspects of sexuality. Includes physiological development and functioning, gender identity and sex roles, sociocultural influences, and values in decision making. Covers roles of motivation, emotion and communication in sexual behavior and relationships. (3 contact hours)

**PSY-212 Theories of Personality (3)**

This course is designed to provide students with a comparative analysis of personality theory, research and assessment. Course will address consistencies in the thoughts, feelings, and behavior of people over time and across situations. Topics will include methods of personality research and an overview of the primary theoretical perspectives in the field: trait psychoanalytical, humanistic, social learning/behavioral, cognitive and cross-cultural. (3 contact hours)

Prerequisite: PSY-101

**PSY-215 Educational Psychology (3)**

This course concerns psychological principles underlying educational practice. Theories concerning cognitive and psychological development, human learning, and motivation are studied with emphasis on application for instruction, including assessment. Emphasis also will be placed on learner-centered instruction and diversity. (3 contact hours)

Prerequisite: PSY-101, PSY-104, or PSY-105

**PSY-220 Psychology of Women (3)**

Psychological approach to the study of women. Includes female psychobiology, sex-role acquisition, personality theories, socialization processes, and contemporary psychological issues. (3 contact hours)

**RAD—Radiologic Technology****RAD-101 Health Care in Medical Imaging (1)**

Introduces discovery and early history of x-rays and their use in medicine. Covers health care delivery system, medical ethics, and professional societies and organizations for radiologic technologists. Accreditation, certification, licensure, and their impact on socioeconomics are explored. (1 contact hour)

Prerequisite: First-year classification in Radiologic Technology program

**RAD-102 Principles of Imaging (3)**

Learn theory of x-ray exposure to obtain proper diagnostic information. Performance of laboratory experiments using student x-ray training units is included. Fee is required. (4 contact hours)

Prerequisite: First-year classification in Radiologic Technology program Corequisite: RAD-103, RAD-104, RAD-105, and RAD-110

**RAD-103 Ionizing Radiation Protection (2)**

Introduction to radiation protection, methods of protection for the patient and technologist. Permissible dosage for the technologist and patients and calculations. Safe operations of the x-ray equipment/beam. (2 contact hours)

Prerequisite: First-year classification in Radiologic Technology program Corequisite: RAD-102, RAD-104, RAD-105, and RAD-110

**RAD-104 Radiographic Procedures I (3)**

Covers proper positions for radiograph of the osseous system and evaluation of radiographs. Technique, positioning and anatomical appearance on radiographs are emphasized. Students will perform radiographic positioning. Fee is required. (4 contact hours)

Prerequisite: First-year classification in Radiologic Technology program Corequisite: RAD-102, RAD-103, RAD-105, and RAD-110

**RAD-105 Image Analysis I (1)**

Content provides a basis for analyzing radiographic images. Included are the importance of optimal imaging standards, discussions of problem-solving technique for image evaluation and the factors that can affect image quality. Actual images are included for analysis. (1 contact hour)

Prerequisite: First-year classification in Radiologic Technology program Corequisite: RAD-102, RAD-103, RAD-104, and RAD-110

**RAD-106 Image Analysis II (1)**

Content provides an advanced analysis of radiographic images. Included are the importance of optimal imaging standards, discussions of problem-solving technique for image evaluation and the factors that can affect image quality. Actual images are included for analysis. (1 contact hour)

Prerequisite: First-year classification in Radiologic Technology program Corequisite: RAD-107, RAD-108, and RAD-111

**RAD-107 Digital: Acquisition and Display (2)**

Content imparts an understanding of the components, principles and operation of digital imaging systems found in diagnostic radiology. Factors that impart image acquisition display archiving and retrieval are discussed. Principles of digital system quality assurance and maintenance are presented. Fee is required. (2 contact hours)

Prerequisite: First-year classification in Radiologic Technology program Corequisite: RAD-106, RAD-108, and RAD-111

**RAD-108 Radiographic Procedures II (3)**

Covers proper positioning for radiographs of the special chest, and abdomen, skull, alimentary, biliary, and urinary systems, including trauma radiography. Technique, position and anatomical appearance on the radiograph are covered. Performance of radiographic positioning during simulations and utilization of phantom. Fee is required. (4 contact hours)

Prerequisite: First-year classification in Radiologic Technology program Corequisite: RAD-106, RAD-107, and RAD-111

**RAD-110 Radiologic Clinical Practice I (1)**

This course provides the student with the opportunity to correlate lecture/lab content taught in RAD-102 and RAD-103 to the health care clinical setting. Students will be under the direct supervision of a qualified radiologic technologist. Emphasis is on a clinical orientation, equipment, procedures, and department policies. Fee is required. (8 contact hours)

Prerequisite: First-year classification in Radiologic Technology program Corequisite: RAD-102, RAD-103, RAD-104, and RAD-105

**RAD-111 Radiologic Clinical Practice II (3)**

This course provides students with the opportunity to correlate previous and new instruction with applications in the clinical setting. Students will be under the direct supervision of a qualified radiologic technologist. Clinical setting enables students to apply theory to practice in radiographic equipment manipulation, radiographic exposure, routine radiographic positioning, identification

and patient care techniques. Fee is required. (16 contact hours)

Prerequisite: First-year classification in Radiologic Technology program Corequisite: RAD-106, RAD-107, and RAD-108

**RAD-202 Physics: Product and Characteristics (3)**

Advanced knowledge of x-ray machines to facilitate proper radiographic exposure techniques. Fundamentals of atomic structure and electromagnetism. Detailed study of x-rays, x-ray circuit, and the nature and characteristics of radiation, x-ray production, and fundamentals of photon interactions with matter are covered. Including principles of protection from radiation. Fee is required. (4 contact hours)

Prerequisite: Second-year classification in Radiologic Technology program Corequisite: RAD-210

**RAD-204 Radiographic Procedures III (2)**

This course is an advanced continuation of radiographic procedures including terminology and positioning. New radiographic procedures will be introduced such as nuclear medicine, MRI, mammography, ultrasonography, and computerized axial tomography and interventional. Nursing procedures, including sterile and aseptic techniques, are covered, as well as image evaluation to include anatomy, positioning and radiation protection. (2 contact hours)

Prerequisite: Second-year classification in Radiologic Technology program Corequisite: RAD-205, RAD-206, and RAD-211

**RAD-205 Radiologic Pathology (1)**

Includes proper positions and techniques for radiographers of vascular and nervous systems. Discusses other imaging procedures such as, thermography, xerography, ultrasonography, and computerized tomography. Nursing procedures including sterile and aseptic techniques are covered. (1 contact hour)

Prerequisite: Second-year classification in Radiologic Technology program Corequisite: RAD-204, RAD-206, and RAD-211

**RAD-206 Medical Imaging Equipment (3)**

Study functions in application of radiographic equipment and imaging modalities, quality control equipment and techniques. Includes radiation detection equipment and an overview of imaging modalities not using ionizing radiation. Fee is required. (4 contact hours)

Prerequisite: Second-year classification in Radiologic Technology program Corequisite: RAD-204, RAD-205, and RAD-211

**RAD-207 Radiology Science, Ethics, and Law (1)**

Provides a fundamental background in ethics to include discussion on historical and philosophical basis of ethics,

as well as the elements of ethical behavior. The student will examine a variety of ethical issues and dilemmas found in clinical practice. An introduction to legal terminology, concepts, and principles will also be presented. Topics include misconduct, malpractice, legal and professional standards and the American Society of Radiologic Technologists (ASRT) scope of practice. The importance of proper documentation and informed consent is emphasized. (1 contact hour)

Prerequisite: Second-year classification in Radiologic Technology program Corequisite: RAD-208, RAD-209, and RAD-212

#### **RAD-208 Introduction to Computed Tomography (1)**

This course provides an overview of the historical development and evolution of computed tomography (CT) imaging. Major components and functions of a CT scanner will be discussed. Basic scanning protocols common to CT imaging will be presented along with the technologists' role in using a CT scanner. (1 contact hour)

Prerequisite: Admission into Computed Tomography program or Radiologic Technology program and Permission of the Coordinator Corequisite: RAD-221, RAD-222, RAD-223, and RAD-226 (Computed Tomography students) or RAD-207, RAD-209 and RAD-212 (Radiologic Technology students)

#### **RAD-209 Radiation Biology (2)**

Studies effects of ionizing radiation in biological systems. Includes radiation units, interactions of radiation and matter, response to irradiation, radiation syndromes, and somatic and genetic effects. (2 contact hours)

Prerequisite: Second-year classification in Radiologic Technology program Corequisite: RAD-207, RAD-208, and RAD-212

#### **RAD-210 Radiologic Clinical Practice III (3)**

Students will gain an advanced level of hospital experience in radiographic rooms by correlating principles taught in RAD-202. Students will build advanced skills required in the radiology department as well as throughout the clinical site. This course requires students to work and interact with patients as well as the healthcare team. All instructions for this course will occur in a hospital setting and be directly supervised by hospital personnel. Fee is required. (16 contact hours)

Prerequisite: Second-year classification in Radiologic Technology program Corequisite: RAD-202

#### **RAD-211 Radiologic Clinical Practice IV (4)**

This advanced level course provides students with the opportunity to correlate previous and new instruction with applications in the clinical setting. Students will be under the direct supervision of a qualified radiologic technologist. Clinical setting enables students to apply theory to practice

in radiographic imaging, patient interaction, equipment manipulation, radiographic exposure, routine radiographic positioning, identification, and patient care techniques. Fee is required. (24 contact hours)

Prerequisite: Second-year classification in Radiologic Technology program Corequisite: RAD-204, RAD-205, and RAD-206

#### **RAD-212 Radiologic Clinical Practice V (4)**

This advanced level course provides students with the opportunity to correlate previous and new instruction with applications in the clinical setting. Students will be under the direct supervision of a qualified radiologic technologist. Clinical setting enables students to apply theory to practice in all modalities of medical imaging. Fee is required. (24 contact hours)

Prerequisite: Second-year classification in Radiologic Technology program Corequisite: RAD-207, RAD-208, and RAD-209

#### **RAD-221 Procedures and Patient Care (2)**

This course provides technical and patient care-related content as it pertains to the technologists' role before, during and after a computed tomography (CT) examination. Discussions include, but are not limited to, routine and emergency patient care, proper body mechanics, infection control and standard precautions, patient education, patient history and assessment, contrast media, patient positioning, and scan parameters. (2 contact hours)

Prerequisite: Admission into Computed Tomography program and Permission of the Coordinator Corequisite: RAD-208, RAD-222, RAD-223, and RAD-226

#### **RAD-222 Sectional Anatomy and Pathology I (2)**

This course provides the student knowledge of cross-sectional anatomy in different anatomical body planes. It also covers common pathologies that are imaged using cross-section technique. Routine imaging procedures are discussed for the following body parts: head, neck and chest. (2 contact hours)

Prerequisite: Admission into Computed Tomography program and Permission of the Coordinator Corequisite: RAD-208, RAD-221, RAD-223, and RAD-226

#### **RAD-223 Physics and Instrumentation (3)**

This course provides a study of physical principles and instrumentation involved in computed tomography (CT). Physics topics covered include the characteristics of x-radiation, CT beam attenuation, linear attenuation coefficients, tissue characteristics and quality control procedures, and Hounsfield number applications. Also includes principles of radiation protection, including the responsibilities of the radiographer for patients, personnel and the public; and incorporates radiation health and safety requirements of federal and state regulatory agencies,

accreditation agencies and health care organizations. (3 contact hours)

Prerequisite: Admission into Computed Tomography program and Permission of the Coordinator Corequisite: RAD-208, RAD-221, RAD-222, and RAD-226

### **RAD-224 Advanced Computed Tomography Imaging (3)**

This course presents physical principles related to data acquisition and image formation along with post-processing, display and archival techniques. Artifacts and other factors affecting image quality will be discussed. Data acquisition and manipulation techniques, and image reconstruction algorithms will be explained. CT imaging, multiplanar (MPR) images, 3-D images, picture archiving and communications (PACS) integration, and cardiovascular imaging will be discussed. (3 contact hours)

Prerequisite: RAD-208, RAD-221, RAD-222, RAD-223, and RAD-226 Corequisite: RAD-225 and RAD-227

### **RAD-225 Sectional Anatomy and Pathology II (2)**

This course provides the student knowledge of cross-sectional anatomy in different anatomical body planes. It also covers common pathologies that are imaged using cross-section technique. Routine imaging procedures are discussed for the following body parts: abdomen, pelvis and musculoskeletal. (2 contact hours)

Prerequisite: RAD-208, RAD-221, RAD-222, RAD-223, and RAD-226 Corequisite: RAD-224 and RAD-227

### **RAD-226 Clinical Education I (3)**

This course provides the students with the opportunity to expand on the principles learned in the classroom to perform CT procedures under the direct supervision of a preceptor/mentor. The American Registry of Radiologic Technologists (ARRT) requires applicants for the CT Registry examination to document 125 CT competencies in specific categories. Students are provided clinical hours at approved clinical sites to acquire these skills and competencies. Fee is required. (16 contact hours)

Prerequisite: Admissions into Computed Tomography program and Permission of Coordinator Corequisite: RAD-208, RAD-221, RAD-222, and RAD-223

### **RAD-227 Clinical Education II (3)**

This course provides the students with additional opportunities to expand on the principles learned in the classroom to perform CT procedures under the direct supervision of a preceptor/mentor. The American Registry of Radiologic Technologists (ARRT) requires applicants for the CT Registry examination to document 125 CT competencies in specific categories. Students are provided clinical hours at approved clinical sites to acquire these skills and competencies. Fee is required. (16 contact hours)

Prerequisite: RAD-208, RAD-221, RAD-222, RAD-223, and RAD-226 Corequisite: RAD-224 and RAD-225

### **RAD-260 Breast Pathology (1)**

This course provides an in-depth study of the various pathologies of the breast. (1 contact hour)

Prerequisite: American Radiologic Registered Technology (ARRT) license, IEMA license or equivalent and admission to the Mammography program Corequisite: RAD-261 and RAD-262

### **RAD-261 Principles and Procedures (3)**

This course emphasizes mammography positioning and related procedures. (4 contact hours)

Prerequisite: American Radiologic Registered Technology (ARRT) license, IEMA license or equivalent and admission to the Mammography program Corequisite: RAD-260 and RAD-262

### **RAD-262 Quality Assurance (2)**

This course studies mammography equipment and tests performed on the equipment to meet Management and Quality Standards Act (MQSA) guidelines, American College of Radiology (ACR) accreditations, and the Food and Drug Administration (FDA) guidelines. (3 contact hours)

Prerequisite: American Radiologic Registered Technology (ARRT) license, IEMA license or equivalent and admission to the Mammography program Corequisite: RAD-260 and RAD-261

### **RAD-263 Mammography Clinical Internship (3)**

Students will gain hospital experience in mammography rooms, correlating principles learned in RAD-260, RAD-261, and RAD-262. This course introduces the mammography department and initiates phases of patient rapport. Students will be required to work with patients and use mammography equipment. All instruction for this course will occur in healthcare facility settings and will be supervised directly by mammography personnel. (16 contact hours)

Prerequisite: RAD-260, RAD-261 and RAD-262

## **RDG—Reading**

### **RDG-041 Approaches to College Reading (4)**

Designed to give the student a solid foundation in the basics of college reading. Primary focus will be on appropriate thinking, reading and writing strategies essential for improving comprehension. Credit hours for this course can be applied to full-or part-time student status, but will not count toward graduation credits unless specified in your certificate or degree program. Students must be

enrolled in COS-100 in every semester they are enrolled in RDG-041. (4 contact hours)

Prerequisite: Appropriate placement test score Corequisite: COS-100

### **RDG-071 Techniques for Textbook Reading (3)**

Development of thinking, reading and writing techniques necessary for comprehension of college textbooks. Emphasizes planning, organizing, integrating, and evaluating reading strategies. Credit hours for this course can be applied to full- or part-time student status, but will not count toward graduation credits unless specified in your certificate or degree program. (3 contact hours)

Prerequisite: RDG-041 with a minimum grade of "C" or appropriate placement test score

### **RDG-091 Critical Reading (3)**

Refines and expands the critical, higher order thinking strategies necessary for the interpretation and evaluation of reading content. Credit hours for this course can be applied to full- or part-time student status, but will not count toward graduation credits unless specified in your certificate or degree program. (3 contact hours)

Prerequisite: RDG-071 with a minimum grade of "C" or appropriate placement test score

## **REC—Recreation Management**

### **REC-101 Rec Therapy and Sport Management (3)**

This course reviews the history, development and community utilization of wellness professions. Structures, purposes, and interrelationships of these professions are covered. Trends and career opportunities in wellness professions are explored. The content is delivered through lecture, group discussion, self-assessment, portfolio, academic master plan, and career search project. (3 contact hours)

### **REC-102 Older Adult Recreation and Wellness (3)**

This course will focus on theoretical and practical issues encountered in serving the specific population of older adults in a variety of recreation and health fitness settings. Topics addressed include attitudes and prejudices toward aging, societal norms related to aging, physical differences in normal and abnormal aging, aging and mental health issues, the dynamics of dementia, and issues relating to death and dying. (4 contact hours)

### **REC-120 Sport/Recreation Programming (3)**

Introduces the student to the role of sport and recreation leader and programmer. Emphasizes responsibilities, skills and resources necessary to planning successful sports, recreation and leisure programs. (4 contact hours)

### **REC-124 Sport/Recreation Facility Management (3)**

Study the philosophies, principles, methods, techniques, and skills needed to effectively operate and maintain facilities for sports, recreation and leisure events and programming. (3 contact hours)

### **REC-180 Perceptual Motor Development (3)**

Participation in a variety of K-6 physical education activities are included. Teaching methods are stressed, with emphasis on perceptual motor development for early childhood students. Fee is required. (4 contact hours)

### **REC-182 Recreation for Special Populations (3)**

This methods class introduces the skills, knowledge and competencies necessary for planning, organizing, conducting, and evaluating recreational programs for special populations. Includes hands-on experience teaching various disability groups. (4 contact hours)

### **REC-201 Applied Leadership Essentials (3)**

This course covers basic functions of leadership theory, including dynamics, skills and case studies. In-class simulations, team development exercises and self-development are covered. (4 contact hours)

### **REC-205 Professional Issues (2)**

Covers critical trends and issues, the role of the leisure professional in the contemporary setting, funding ethics, and legal responsibilities. (2 contact hours)

### **REC-233 Recreation Management Practicum (3)**

Includes supervised practical exposure and involvement in the recreation management field. (15 contact hours)

Prerequisite: Consent of practicum coordinator Corequisite: REC-237

### **REC-237 Recreation Management Seminar (1)**

Includes discussion of supervised field service experience in recreation management practicum. (1 contact hour)

Corequisite: Registration or credit in REC-233

## **RES—Respiratory Therapy Technology**

### **RES-101 Foundations of Respiratory Care (3)**

This is a lecture course providing an introduction to respiratory care and governing agencies. There is an emphasis on professionalism, ethics, physical science principles, cardiopulmonary anatomy and physiology, patient care, and concepts of illness. Fee is required (3 contact hours)

Prerequisite: Admission to the Respiratory Therapy Program Corequisite: RES-102 and RES-103

**RES-102 Fundamentals of Medical Gas Therapy (5)**

This is a lecture and laboratory course that examines the rationale, indications, hazards, and safe administration of oxygen therapy and various medical gas therapies. Theory and application and regulation of gas flow, cylinders, regulators, and flowmeters. Patient isolation techniques and sterilization of respiratory therapy equipment. The indications and use of pulse oximetry and oxygen analyzers. This course also will introduce the etiology, diagnosis, pathology, symptoms, and treatment of pulmonary diseases. Fee is required. (7 contact hours)

Prerequisite: Admission to the Respiratory Therapy Program Corequisite: RES-101 and RES-103

**RES-103 Pharmacology for Respiratory Therapy (3)**

This course is a study of drugs affecting primarily the respiratory, circulatory, nervous, and renal systems. Categories of drugs discussed include bronchodilators, corticosteroids, nonsteroidal antiasthma agents, mucokinetics, surfactants, xanthines, central nervous stimulants and depressants, antidysrhythmics, antithrombotics, diuretics, antihistamines, vasopressors, antibiotics and a brief review of neonatal and pediatric aerosolized drug therapy. The sympathetic and parasympathetic nervous system also will be discussed. Drug calculations also will be covered. Fee is required. (3 contact hours)

Prerequisite: Admission to the Respiratory Therapy Program Corequisite: RES-101 and RES-102

**RES-104 Airway Care and Gas Exchange (4)**

This course is a lecture course which presents advanced concepts in the anatomy and physiology of the cardiopulmonary system, the indications and hazards of artificial airways, emergency airway care, and life support techniques in respiratory and cardiac failure. The study includes theory and equipment demonstrations. The course also covers acid-base balance and a comprehensive study of blood gases, renal system anatomy, and physiology. Fee is required. (4 contact hours)

Prerequisite: RES-101 Corequisite: RES-105, RES-106 and RES-154

**RES-105 Respiratory Therapeutic Modalities (5)**

This is a lecture and laboratory course that studies the application of various forms of medication, aerosol therapy, hyperinflation therapy, and special procedures used in the practice of respiratory care. Indications and use of non-invasive monitors and pulmonary clearance techniques are presented. Advanced assessment of etiology, diagnosis, pathology, symptoms, and treatment of various pulmonary and related disease entities and therapeutic medical gases and pulmonary functions are discussed. Fee is required. (7 contact hours)

Prerequisite: RES-101 Corequisite: RES-104, RES-106 and RES-154

**RES-106 Patient and Ventilator Management (3)**

This is a lecture course providing in-depth study of the operational principles, application, physiological effects, and management of ventilators. Emphasis is placed on the appropriate management of patients requiring mechanical ventilation. Fee is required. (3 contact hours)

Prerequisite: RES-101 Corequisite: RES-104, RES-105 and RES-154

**RES-107 Managing the Critically Ill Patient (2)**

This is a lecture course which provides a study of cardiac and cardiovascular monitoring, advanced cardiac life support protocols, and advanced pharmacology involved in managing the critically ill patient. Fee is required. (2 contact hours)

Prerequisite: RES-104 Corequisite: RES-157

**RES-154 Respiratory Clinical Practice I (1)**

This course provides practical experience conducted at a hospital affiliated with the respiratory therapy program under the direct supervision of a respiratory therapist for 8 hours per week. Emphasis is on providing care to non-critically ill patients. Fee is required. (8 contact hours)

Prerequisite: RES-101 Corequisite: RES-104, RES-105 and RES-106

**RES-157 Respiratory Clinical Practice II (1)**

This course is practical experience conducted at a hospital affiliated with the respiratory therapy program under the direct supervision of a respiratory therapist for 16 hours per week. Emphasis is on increasing skill level and critical thinking skills developed in Respiratory Clinical Practice I, time management and prioritizing respiratory care to non-critically ill patients, followed by an introduction to critical care respiratory therapy. Fee is required. (10 contact hours)

Prerequisite: RES-154 Corequisite: RES-107

**RES-200 Basic EKG Application and Theory (1)**

This course provides a basic understanding of electrocardiography (EKG) theory and application. (1.5 contact hours)

**RES-201 Neonatal/Advanced Respiratory Care (3)**

This is a lecture course providing in-depth study of neonatal and pediatric anatomy and physiology with an emphasis on respiratory therapies for newborns and pediatric patients with cardiopulmonary disorders. Advanced management of patients requiring mechanical ventilation also is addressed. Ventilator waveforms, current concepts in mechanical ventilation such as high frequency ventilation and

alternative and home care therapies are explored. Fee is required. (3 contact hours)

Prerequisite: RES-107 Corequisite: RES-250

### **RES-202 Respiratory Care Capstone (3)**

This course is designed to prepare students to take the National Board for Respiratory Care (NBRC) Therapist Multiple-Choice examination (TMC) leading to the CRT credential and the Registered Respiratory Therapist (RRT) examination through discussion, case studies, computer software and mock examinations. The primary goal of this course is to focus on the complex subjects of the CRT and RRT content outline. Therefore, to enhance performance on the mock examination, outside resources such as computer examinations and exam matrices must be utilized. Advanced Cardiac Life Support and Pediatric Advanced Life Support training and certification are also included. Fee is required. (3 contact hours)

Prerequisite: RES-201 Corequisite: RES-251

### **RES-250 Respiratory Clinical Practice III (2)**

This course provides students with practical experience conducted at a hospital affiliated with the respiratory therapy program under the direct supervision of a respiratory therapist for 16 hours per week. Emphasis is on increasing skill level, critical thinking skills and cognitive abilities in ventilator management for the critically ill patient developed in Respiratory Clinical Practice II. This course will also include an introduction to neonatal and pediatric care with cardiopulmonary diseases. Fee is required. (16 contact hours)

Prerequisite: RES-157 Corequisite: RES-201

### **RES-251 Respiratory Clinical Practice IV (4)**

This course provides students with a clinical experience conducted at a hospital affiliated with the respiratory therapy program under supervision of a respiratory therapist. This is the last clinical course in the Respiratory Therapy A.A.S. degree program and will prepare the student to enter the workforce. Emphasis is on increasing skill level, critical thinking skills and cognitive abilities consistent with entry level into the profession. Advanced ventilator management of the critically ill adult and neonatal patient will be emphasized. Emphasis is on increasing skill level, critical thinking skills and cognitive abilities in ventilator management for the critically ill patient developed in Respiratory Clinical Practice III (RES-250). Fee is required. (20 contact hours)

Prerequisite: RES-250 Corequisite: RES-202

## **RTM—Restaurant/Hotel Management & Culinary Arts**

### **RTM-100 Food Service Sanitation (2)**

Studies the causes and prevention of food-borne illness. Stresses food service worker's responsibilities in protecting the public health. Course meets the educational requirements for the Illinois Department of Public Health and the Educational Foundation of the National Restaurant Association (formerly NIFI) Certification. (2 contact hours)

### **RTM-101 Intro to Hospitality Industry (3)**

Introduces the history, organization, systems, problems, and career opportunities in the hospitality industry, including customer and personnel relations, current laws and trends, basic cost control techniques, and food management. Reviews the organization of hotel, and food and beverage operations. (3 contact hours)

### **RTM-102 Quantity Food Production I (4)**

Introduces basic skills and knowledge to develop a strong foundation within culinary arts management. Examines guidelines used in operations management, including quality control, food handling, preparation, and production. The American Culinary Federation guidelines have been used for this course. This course is a part of the National Restaurant Association's Educational Foundation Management Diploma Program. Fee is required. (7 contact hours)

Corequisite: Registration or credit in RTM-100

### **RTM-103 Basic Food Theory (2)**

This course is designed to introduce the student to the basic principles of food preparation in commercial operations. Topics include kitchen safety, the care and use of equipment, the use of standard recipes, food service, and the preparation of foods used in commercial food operations. Emphasis is placed on the basic food preparation of entrees, starches, vegetables, salads, soups, and appetizers. It is recommended that this course be taken concurrently with RTM-102 or RTM-209. (2 contact hours)

### **RTM-108 Culinary Calculations (2)**

This course is designed to teach calculations of metric and imperial measures and conversions utilized in food service operations. Recipe yield and costing also will be covered. (2 contact hours)

Corequisite: RTM-100 and RTM-101

### **RTM-202 Quantity Food Production II (4)**

Designed for students who have proficiency in all basic skills and knowledge of culinary arts management. Emphasizes intermediate methods and techniques of culinary arts, with a concentration on regional American cuisine, meat and seafood cookery and fabrication, and the food production system. The American Culinary Federation guidelines have been used for this course. This course is a

part of the National Restaurant Association's Educational Foundation Management Diploma Program. Fee is required. (7 contact hours)

Prerequisite: RTM-102

**RTM-203 Garde Manger (4)**

Master the skills of garde manger, which is the artistic presentation of food. Learn the concepts of garde manger and buffet management in both a classroom and laboratory environment. Through participation in hands-on laboratory experiences, students study professional plate presentations, displays and show pieces. The American Culinary Federation guidelines have been used as a standard for this course. Fee is required. (7 contact hours)

Prerequisite: RTM-202 or consent of instructor

**RTM-204 Quantity Food Production III (4)**

This course is recommended for students who have attained an intermediate level of skill and knowledge in culinary arts management. Advanced methods and techniques will be taught with an emphasis on international cuisine. Examine various cultures and their traditional food habits to develop a better understanding of the many cultures in America, and how these cultures and cuisines have influenced American cuisine and the hospitality industry today. Fee is required. (7 contact hours)

Prerequisite: RTM-102

**RTM-205 Beverage Management (3)**

An introduction to the principles of beverage management. Non-alcoholic beverages as well as wine, spirits and beers are studied. (4 contact hours)

**RTM-206 Menu Writing and Marketing (3)**

Introduces menu writing and developing marketing strategies for hotels, restaurants, clubs, and resorts. (3 contact hours)

**RTM-207 Food, Beverage, and Equipment Purchasing (3)**

Introduces food, beverage and equipment purchasing for a hotel or restaurant. (3 contact hours)

Prerequisite: MTH-090 or appropriate placement test score

**RTM-208 Design & Maint. of Food Service Fac. (3)**

Principles of layout, design and maintenance for a hotel, restaurant or commercial kitchen are examined. (3 contact hours)

**RTM-209 Baking/Pastry I (4)**

Develop skills and knowledge essential in baking. Includes basic principles in the baking process, and ingredient standards and usage. Covers techniques in mixing and preparation of professional finished products. Studies yeast

dough products such as bread and rolls, sweet yeast dough products, quick breads and batters, as well as pies and tarts. The American Culinary Federation guidelines have been used for this course. Fee is required. (7 contact hours)

Corequisite: Registration or credit in RTM-100

**RTM-210 Nutrition for Food Service Managers (3)**

Details the fundamentals of nutrients, their sources and their functions, the U.S. recommended dietary allowances, and the U.S. dietary guidelines are presented in detail, as well as menus that comply with them. Special diets required during pregnancy, adolescence and adulthood, as well as for athletes and vegetarians, are presented. Prepares food service managers to accommodate the consumer's increasing awareness of nutrition. (3 contact hours)

**RTM-211 Baking/Pastry II (4)**

The mastery of skills and knowledge in advanced baking and pastries. Includes specialty breads, pastries, classic desserts, marzipan, chocolate work, cocoa printing, advanced decorating techniques, and showpieces. The American Culinary Federation guidelines have been used for this course. Fee is required. (7 contact hours)

Prerequisite: RTM-209 or consent of instructor

**RTM-212 Basic Cake Decorating (2)**

This course is designed for students to develop basic cake decorating techniques, such as cake baking, buttercream production, and piping skills. The course concludes with students preparing a multi-faceted cake. (4 contact hours)

Prerequisite: RTM-209

**RTM-213 Artisan Breads (2)**

This course is designed to expose the student to a variety of yeast bread-making techniques. A thorough understanding of the ingredients, baking theory, mixing methods and baking methods will be taught. Students will work with a variety of flours and grains, as well as learning sourdoughs and pre-ferments. Fee is required. (4 contact hours)

Prerequisite: RTM-209

**RTM-214 Chocolate & Confectionary Artistry (2)**

This course is designed to introduce students to working with chocolate and making of confectionary. Emphasis will be placed on tempering and proper handling of a variety of chocolates, candies and decorations, as well as learn how to build a chocolate showpiece. Students will learn how to prepare a variety of confections and sugar decorations. Fee is required. (4 contact hours)

Prerequisite: RTM-209

**RTM-215 Restaurant and Buffet Desserts (2)**

This course is designed to have students produce multi-component plated desserts for restaurant or banquet-type service. Students also will produce desserts designed for buffet-type service, including mini-pastries. Emphasis will be placed on production preparation with a restricted timeframe. Fee is required. (4 contact hours)

Prerequisite: RTM-209 and RTM-211

**RTM-216 Advanced Cake Decorating (2)**

This course is designed for students to develop advanced cake decorating techniques, working with mediums such as rolled fondant, gumpaste, and marzipan and tiered-cake production. Instruction will emphasize quality production of icings and fillings for cakes. Bakery business management is also discussed, including customer service, pricing and marketing/promotion. The course concludes with students preparing a multi-tiered cake. Fee is required. (4 contact hours)

Prerequisite: RTM-212

**RTM-217 Special Topics in Culinary Arts (2)**

This course is designed to offer a variety of special topics related to the food service industry. The special topic classes will help students be aware of relevant and emerging trends in the industry. This course may be taken three times for credit as long as different topics are selected. (3 contact hours)

**RTM-218 Baking Science & Recipe Development (2)**

This course is designed to further advance a student's knowledge of baking through experimentation in the lab. This course includes basic principles in the baking process, ingredient identification, tasting and sensory evaluations. The process of developing recipes also emphasized. (4 contact hours)

Prerequisite: RTM-209

**RTM-220 Concepts of Hospitality Cost Control (3)**

Explores how to maximize hospitality profitability by controlling costs. Cost-control techniques and procedures in food, beverage and hotel operations are covered. Standard hospitality accounting practices, financial statements, budgets, and financial planning are covered. (3 contact hours)

Prerequisite: MTH-090 or appropriate placement test score

**RTM-222 Supervisory Housekeeping (3)**

Overviews the fundamentals of housekeeping management. Describes the management functions, tools and practices required in today's lodging and institutional housekeeping departments. (3 contact hours)

**RTM-223 Convention Management and Service (3)**

Defines the scope and various segments of the convention market, explains what is required to meet individual needs, and explores methods and techniques that lead to better service. (3 contact hours)

**RTM-225 Banquet & Specialty Services (3)**

An orientation to the field of catering, this course includes all of the activities associated with the sales, organization, food preparation, and service of catered functions, banquets and other specialty functions, including hotel room service. (3 contact hours)

**RTM-226 Front-of-the-House Management (3)**

This course is designed to introduce students to the front-of-the-house operations and professional dining service techniques. These techniques include etiquette, quality service, positive guest relations, check handling skills, and effective communication skills. In addition, students will use various table service techniques to serve hot and cold food and beverages. (3 contact hours)

**RTM-227 Front Office Procedures (3)**

Presents a systematic approach to front office procedures by detailing the flow of business through a hotel, beginning with the reservation process and ending with check-out and settlement. Examines the various elements of effective front office management, paying particular attention to planning and evaluating front office operations and to personnel management. Front office procedures and management are placed within the context of the overall operation of a hotel. (3 contact hours)

**RTM-230 Hospitality Seminar (1)**

This capstone professional development course is designed to help students transition into a career field within the hospitality industry. Students will develop resumes, cover letters, research hospitality organizations, and work with a mentor to examine personal and professional goals and opportunities. Students will utilize the World Wide Web extensively when completing assignments. This course should be taken near the completion of the certificate or degree program and is recommended for students planning to enroll in RTM-233, Hospitality Internship. Fee is required. (1 contact hour)

Prerequisite: Consent of instructor

**RTM-231 Hospitality Supervision (3)**

Prepares the student for the transition from employee to supervisor, including how to handle difficult employees, implement motivational techniques and conduct performance evaluations. (3 contact hours)

Corequisite: Registration or credit in RTM-101

**RTM-233 Hospitality Internship (3)**

Provides planned and supervised occupational field experience as it relates to the student's occupational program. Student will work at least 15 hours a week over a two-semester period. Fee is required. (15 contact hours)

Prerequisite: Consent of instructor

**RTM-240 Purchasing and Cost Control (3)**

This course introduces the key concepts of purchasing and receiving practices in quality foodservice operations. The influence of quality standards and regulations on the purchasing function of food products is presented, including the proper receiving and storage of food and non-food items. (3 contact hours)

Prerequisite: BUS-120

**RTM-245 Quantity Food Production IV (4)**

This is designed as a capstone course for students. The course applies the principles of food preparation in full-service restaurants, including both independent units and units within a commercial/non-commercial food service operation. The course emphasizes fine cuisine, menu development and presentation, and systems and controls within the kitchen environment. Fee is required. (7 contact hours)

Prerequisite: RTM-204

**SLP—Security and Loss Prevention****SLP-100 Unarmed Security Guard Training (1)**

Intensive instruction in the technical aspects of private security employment. Emphasis is on legal rules, security techniques and processes, life safety, and public relations. Successful completion satisfies the 20-hour basic training requirement for unarmed private security certification under Illinois revised statutes. (1 contact hour)

**SLP-101 Introduction to Security (3)**

Covers the historical, philosophical and legal basis for security. Includes the role of security in society; the concept of professionalism; and the administrative, personnel and physical aspects of the field. (3 contact hours)

**SLP-103 Armed Security Guard Training (1)**

This course provides basic instruction in the use and handling of firearms related to private security employment. Emphasis is placed on legal issues, safety rules and supervised practice on the range. Successful completion satisfies the 20-hour firearms training requirement for armed private security certification under Chapter 111, Paragraph 2678 Illinois Revised Statutes. Fee is required. (1.5 contact hours)

Prerequisite: SLP-100

**SLP-104 Firearms I (2)**

Presents the physical, legal and moral hazards associated with the misuse of firearms. Emphasizes general and specific safety rules for handling weapons. Includes supervised practice to develop the student's ability to use firearms effectively and safely. Successful completion satisfies the 40-hour mandatory firearms training course for peace officers. Fee is required. (2.5 contact hours)

**SLP-106 Crisis Management (3)**

Emphasizes interpersonal skills in protective services conflict situations. Includes interpersonal communications, and understanding and handling crisis intervention situations. Reviews job stress management. (3 contact hours)

**SLP-107 Security Procedures (3)**

Explores basic security methods and techniques used to carry out prevention, protection, enforcement, inspection, detection, investigation, emergency service, deterrence, reporting, and general services functions. Emphasis is placed on the specific role each function has in maintaining a desired level of security. (3 contact hours)

**SLP-108 Applied Security Operations (3)**

Examines methods, techniques and means necessary to maintain a security operations environment. Emphasis is on physical, information and personnel security. Includes computer security. (3 contact hours)

**SLP-109 Private Alarm Training (1)**

This course provides basic instruction in private alarm fundamentals. Emphasis is on basic electronics, equipment and wiring requirements, video detection and alarm systems, fire detection and alarm systems, specialty systems, perimeter detection, and motion detection systems. Successful completion satisfies the 20-hour basic training requirement for private alarm contractor agency employees under the Illinois Private Detective and Private Security Act. (1 contact hour)

**SLP-114 Hospital Security (3)**

Techniques and specialized procedures for effective security in a hospital setting are examined. (3 contact hours)

**SLP-201 Specialized Security Problems (3)**

Studies the application of protective services principles to specific problems. Emphasis is on loss prevention management techniques. Includes crime prevention, disaster and emergency planning, and protection of executives. (3 contact hours)

**SLP-206 Security and the Law (3)**

Provides instruction in the laws and regulations which govern the conduct of private security. Includes administrative law, constitutional law, contract law, criminal law, liability claims, tort law, and related statutory provisions. Attention is given to specific legislation and court decisions, and fundamentals of legal research. (3 contact hours)

**SLP-210 Special Topics in Security (1)**

Students work with instructor individually or in small groups to develop special projects designed to focus on specific private protective services topics. This course may be taken four times for credit. (1 contact hour)

**SLP-219 Contemporary Issues: Security (2)**

Intended primarily for students interested in protective services issues, the course examines basic policy problems: legislation, professionalism, education, training, literature and research, procedures, administration, and social problems. This course may be taken four times for credit. (2 contact hours)

**SLP-233 Internship (3)**

Supervised field work experience at an approved protective services training site. (15 contact hours)

Prerequisite: 12 credit hours completed or concurrent in major including SLP-100 and SLP-101 Corequisite: SLP-237

**SLP-237 Seminar (1)**

Discussion of various experiences and issues encountered during the supervised protective services field work experience. (1 contact hour)

Corequisite: Registration or credit in SLP-233

**SOC—Sociology****SOC-101 General Sociology (3)**

Introduces basic sociological concepts and methods, social processes, social changes, and behavior. (3 contact hours)

IAI Code: S7 900

**SOC-102 Marriage & Family (3)**

Institutions and systems of kinship, marriage, family grouping, child rearing, and status placement are studied. (3 contact hours)

IAI Code: S7 902

**SOC-103 Sociology of Poverty (3)**

Examine common characteristics and adjustment patterns of groups in the lower socioeconomic strata of American society. (3 contact hours)

**SOC-201 Sociology of Health (3)**

Focuses on contemporary issues in healthcare. Examines physicians and other providers of service, the population receiving services and the organizational settings in which care is provided. Observations of healthcare facilities are included. (3 contact hours)

Prerequisite: SOC-101 or consent of instructor

**SOC-202 Aging in Contemporary Society (3)**

Focuses on the basic principles and theories of social gerontology: aging America, health status, retirement, family life, sexuality, political involvement, death and dying, and environment as the context of aging. (3 contact hours)

**SOC-204 Soc of Contemp Social Problems (3)**

Explore contemporary social problems in American society: crime and delinquency, family and generational problems, urban and rural problems, race discrimination in American life, sex and age discrimination, social deviance, health and medical care, and poverty. (3 contact hours)

IAI Code: S7 901

**SOC-210 Minority Groups (3)**

Analysis of racial, religious, ethnic, and other groups, examining persistence of group identity, intergroup relations, social movements, government policy, and related social problems. (3 contact hours)

IAI Code: S7 903D

**SOC-215 Sociology of Sex and Gender (3)**

This course is an examination of sex and gender issues in American culture and other cultures across time. The course will define the concepts of sex and gender, and illustrate the differences between them. The course will focus on both macro and micro strategies for understanding human relationships and identity formation. Students will develop an awareness of how basic social institutions such as family, education, religion, government, and the media shape our collective and individual concepts of gender. (3 contact hours)

IAI Code: S7 904D

**SPA—Spanish****SPA-101 Spanish I (4)**

This beginning course includes oral and aural exercises to develop the ability to understand, speak and write Spanish. Essentials of grammar are stressed. (4 contact hours)

**SPA-102 Spanish II (4)**

Grammar is further explored. Emphasis is on the culture of Spanish-speaking nations of the Western Hemisphere. (4 contact hours)

Prerequisite: SPA-101 or 2 years of high school Spanish

**SPA-105 Career Spanish for Business (3)**

Designed for people in business who wish to develop oral communication skills. Emphasizes question-answer patterns, high frequency expressions, and key vocabulary in business travel and tourism, commerce and public relations. Note: SPA-105 is not designed to transfer to colleges or universities as part of a foreign language requirement. SPA-105 will generally transfer as an elective. (3 contact hours)

**SPA-106 Career Spanish for Business II (3)**

Emphasizes question-answer patterns, high-frequency expressions and key vocabulary in banking, advertising and real estate. Note: SPA-106 is not designed to transfer to colleges or universities as part of a foreign language requirement. SPA-106 will generally transfer as an elective. (3 contact hours)

Prerequisite: SPA-105 or consent of instructor

**SPA-115 Career Spanish for Health Care I (3)**

Designed for people in health professions who wish to develop oral communication skills. Emphasizes question-answer patterns, high-frequency expressions and key vocabulary in pediatrics, family planning and the emergency room. Note: SPA-115 is not designed to transfer to colleges or universities as part of a foreign language requirement, but will generally transfer as an elective. (3 contact hours)

**SPA-116 Career Spanish for Health Care II (3)**

Emphasizes question-answer patterns, high-frequency expressions and key vocabulary in cardiology, drug addiction, and laboratory procedures. Note: SPA-116 is not designed to transfer to colleges or universities as part of a foreign language requirement, but will generally transfer as an elective. (3 contact hours)

Prerequisite: SPA-115 or consent of instructor

**SPA-125 Career Spanish, Law Enforcement I (3)**

Designed for individuals in law enforcement who wish to develop oral communication skills. Emphasize s question-answer patterns, high-frequency expressions and key vocabulary in law enforcement. Note: SPA-125 is not designed to transfer to colleges or universities as part of a foreign language requirement, but will generally transfer as an elective. (3 contact hours)

**SPA-126 Career Spanish, Law Enforcement II (3)**

A continuation of SPA-125 designed for individuals in law enforcement who wish to further develop oral communication skills. Emphasizes question-answer patterns, high-frequency expressions and key vocabulary in law enforcement. Note: SPA-126 is not designed to transfer

to colleges or universities as part of a foreign language requirement, but will generally transfer as an elective. (3 contact hours)

Prerequisite: SPA-125 or consent of instructor

**SPA-201 Spanish III (4)**

Review basic language skills conducted in Spanish language with an emphasis on conversation. Composition is included. Reading of advanced texts (novels) is included. (4 contact hours)

Prerequisite: SPA-102 or 3 years of high school Spanish

**SPA-202 Spanish IV (4)**

Review language structure and interpretation of literary selections. Class is conducted in Spanish. Emphasis is on Spanish-European culture. (4 contact hours)

Prerequisite: SPA-201 or 4 years of high school Spanish IAI Code: H1 900

**SPA-205 Conversational Spanish (4)**

Provides practice in speaking and understanding everyday Spanish. (4 contact hours)

Prerequisite: SPA-201 or 4 years of high school Spanish

**SPA-210 Spanish Culture and Civilization (3)**

Study Spain's historical, intellectual and cultural heritage. Course is taught in Spanish. (3 contact hours)

Prerequisite: SPA-202 or fluency in Spanish with consent of instructor

**SPA-212 Latin America Culture & Civilization (3)**

Studies Latin America's historical and cultural heritage, and the countries' concerns and realities. (3 contact hours)

Prerequisite: SPA-202 or fluency in Spanish with consent of instructor

**SPA-213 Introduction to Hispanic Literatures (3)**

Survey literary movements, principal writers, and representative works of Spanish and Hispanic American literature. Emphasis is on the 20th century. This course is taught in Spanish. (3 contact hours)

Prerequisite: SPA-202 or fluency in Spanish with consent of instructor IAI Code: H3 916

**SSC—Social Science**

**SSC-100 Contemporary Society (3)**

Analyze fundamental social concepts relevant to modern society. Emphasis is on emerging problems. (3 contact hours)

**SSC-101 Social Science I (3)**

This interdisciplinary approach covers current, crucial issues in the social sciences using anthropology, economics, history, political science, and sociology. (3 contact hours)

IAI Code: S9 900

**SSC-102 Social Science II (3)**

Selected internal political, economic and social problems of foreign nations from anthropology, economics, history, political science, and sociology perspectives are examined. (3 contact hours)

**SSC-299 Topics in Social Science (3)**

Major issues currently facing the United States and other nations of the world are explored. Considers socioeconomic, political and other perspectives related to these global topics. (3 contact hours)

**SWK—Social Work****SWK-101 Introduction to Social Work (3)**

The broad field of social welfare services, principal methods of social work intervention, selected social issues, and social work as a profession are covered. (3 contact hours)

Prerequisite: PSY-101 or SOC-101

**TDL—Supply Chain Management****TDL-101 Transportation & Logistics Overview (3)**

This course is designed to help the learner understand the terminology and major functional areas of transportation, distribution, logistics (TDL). The student will be able to describe in detail the various modes of transportation and types of carriers, speak with authority on the basics of distribution operations, and be familiar with the role, impact and value of logistics operations on supply chain management. In addition, students will be able to determine their level of interest in the TDL industry in order to investigate careers in the industry and produce personal educational/career development portfolios to assist them in their search for a career in the industry. Fee is required. (3 contact hours)

**TDL-102 Job Skills for Competitive Advantage (3)**

This course focuses on developing basic professional skills to maximize productivity in the workplace and help individuals increase their competitive edge. Emphasis is placed on the ability of a student to be prepared for the challenges of everyday situations in the workplace. Major topics include work ethic, responsibility and accountability, business etiquette, effective communication, teamwork, problem solving, diversity in the work place, stress management, and life balance. Fee is required. (3 contact hours)

**TDL-103 Transportation (3)**

This course studies the fundamental roles and importance of transportation in companies and the society. The course evaluates the complex environment in which transportation services are provided and explores strategies for adapting to a fast-paced and rapidly changing industry. Specific topics include overview of transportation, supply chain, the economy, traditional modes of transportation, special carriers, global transportation, economic operating characteristics of each mode, costing, pricing, carrier strategy and information management. Fee is required. (3 contact hours)

**TDL-104 Introduction to Import/Export (3)**

This course focuses on the major factors of importing and exporting goods and services on a global scale. It includes an understanding of current terminology, regulations, analysis of and opportunities in international markets, basic principles of international financing, exchange rates, and other elements associated with the transportation and distribution operations to facilitate global trade. Fee is required. (3 contact hours)

**TDL-105 Principles of Operations Management (3)**

This course provides a detailed study of operations management, emphasizing the achievement of the highest levels of service and product quality while keeping cost as low as possible. This course provides detailed operations management study. The major areas covered include integrated product development, integrated supply chain management, process and capacity planning and control, inventory planning, forecasting, just-in-time philosophy, push vs. pull program, total quality management, and enterprise resource planning. Fee is required. (3 contact hours)

**TDL-106 Cargo Security (2)**

This course examines relevant facets of maritime, land, pipeline, and air transportation security related systems and associated issues. It covers applicable legislation and the agencies tasked to oversee each mode of transportation. It also describes how to implement an appropriate program to enhance the security of a particular mode of transportation. Fee is required. (2 contact hours)

Prerequisite: TDL-103

**THE—Theater****THE-105 Theater Appreciation (3)**

Explores the basic elements of theater - the drama and production methods. Emphasizes the integration of all elements into a production, and the relationship between modern and historical ideas and methods. (3 contact hours)

IAI Code: F1907

**THE-107 Film Appreciation (3)**

Introduces film as an art form through viewing and analysis of significant motion pictures. Students will compare film to other art forms and learn to view films with greater understanding. (3 contact hours)

IAI Code: F2 908

**THE-108 Screenwriting (3)**

Screenwriting teaches students basic approaches for writing narrative content for film. Students will develop original content and hone that material into two short screenplays utilizing proper script format, research strategies, and critical feedback. Idea development will include analysis of structure, characterization thematic issues, dialogue workshops, and visualization techniques. Techniques for writing proposals, revision, and pitching will also be explored over the course of the semester. By the end of the semester, students should demonstrate a clear understanding of the fundamental elements of narrative storytelling and have an appreciation of the screenplay's role in crafting a film. (3 contact hours)

Prerequisite: COM-101

**THE-110 History of the Theatre (3)**

This historical view of the theater stresses its social and political role in society from ancient Greece to the present through the study of key playwrights, actors and acting styles, and production techniques and styles. (3 contact hours)

IAI Code: F1 908

**THE-111 History of Film (3)**

An international survey of the historical development of film, emphasizing a study of films and innovations in film production that have had significant influence on film as an art form. Fee is required. (3 contact hours)

IAI Code: F2 909

**THE-114 Oral Interpretation of Literature (3)**

This course offers an introduction to the techniques of oral performance of prose and poetry. It includes the study and practice of analyzing works of literature in order to express the author's intended message through the voices of the characters. (4 contact hours)

IAI Code: TA916

**THE-115 Acting I (3)**

Develops the actor's instrument, including movement, voice production, improvisation, and fundamental characterization. (4 contact hours)

IAI Code: TA914

**THE-116 Acting II (3)**

Continues development of acting fundamentals introduced in Acting I, emphasizing an intensive approach to acting exercises, improvisation, monologues, and scene study. (4 contact hours)

Prerequisite: THE-115

**THE-125 Stagecraft (3)**

Introduces safety procedures and basic techniques of scenery and property construction, tool use, scene painting, and backstage organization. Laboratory experience is mandatory. (4 contact hours)

IAI Code: TA911

**THE-131 Theater Practicum: Acting I (1)**

Acting Practicum teaches students basic approaches for audition, rehearsal and performance for a theatrical production. Students will focus upon creating a role, the rehearsal process, developing professionalism, and performing in a theatrical production. Once cast in a play, the student will apply methodology to creating the role. Enrollment is limited to students who are cast in an academic theater production or approved extracurricular production. Permission of the instructor is required. Students completing this course are awarded one hour of credit. Companion courses THE-132 and 133 are similar in content and learning outcomes but have different credit hour values. (2 contact hours)

Prerequisite: Consent of instructor - Prior to enrollment the student must be awarded a role in a current college theater production

**THE-132 Theater Practicum: Acting II (2)**

Acting Practicum teaches students basic approaches for audition, rehearsal and performance for a theatrical production. Students will focus upon creating a role, the rehearsal process, developing professionalism and performing in a theatrical production. Once cast in a play the student will apply methodology to creating the role. Enrollment is limited to students who are cast in an academic theater production or approved extracurricular production. Permission of the instructor is required. Students completing this course are awarded two hours of credit. Companion courses THE-131 and THE-133 are similar in content and learning outcomes but have different credit hour values. (4 contact hours)

Prerequisite: Consent of instructor. Prior to enrollment the student must be awarded a role in a current college theater production.

**THE-133 Theater Practicum: Acting III (3)**

Acting Practicum teaches students basic approaches for audition, rehearsal and performance for a theatrical production. Students will focus upon creating a role, the

rehearsal process, developing professionalism and performing in a theatrical production. Once cast in a play the student will apply methodology to creating the role. Enrollment is limited to students who are cast in an academic theater production or approved extracurricular production. Permission of the instructor is required. Students completing this course are awarded three hours of credit. Companion courses THE-131 and THE-132 are similar in content and learning outcomes but have different credit hour values. (6 contact hours)

Prerequisite: Consent of instructor. Prior to enrollment the student must be awarded a role in a current college theater production.

### **THE-150 Creative Dramatics (3)**

Covers the role of drama in primary and junior high school education. The scope, values and fundamental skills of drama and its relation to education of the child, with an emphasis on teaching rather than performing skills, are included. (3 contact hours)

## **THR—Recreation Therapy**

### **THR-150 Recreation Therapy Techniques I (3)**

Covers the nature, and function of recreation as a therapeutic aid in the treatment of special populations. (3 contact hours)

### **THR-152 Recreation Therapy Techniques II (3)**

Introduces activity programming methods, organization, presentation, and evaluation. (4 contact hours)

### **THR-233 Recreation Therapy Practicum (3)**

Includes supervised practical exposure and involvement in the recreation therapy field. Fee is required. (15 contact hours)

Prerequisite: Consent of practicum coordinator Corequisite: THR-237

### **THR-237 Recreation Therapy Seminar (1)**

Includes discussion of supervised field service experience in recreation therapy practicum. (1 contact hour)

Prerequisite: Consent of practicum coordinator Corequisite: THR-233

## **WLD—Welding**

### **WLD-104 Electric Welding Circuits (2)**

Explore theory and practical knowledge necessary to troubleshoot the welding circuit. Fee is required. (3 contact hours)

### **WLD-105 Reading Welding Blueprints (3)**

Emphasizes basic interpretation of blueprints, welding symbols and basic sketching. (4 contact hours)

Prerequisite: MTH-090

### **WLD-111 Basic Arc/Gas Welding I (3)**

Covers basic understanding of the operation of oxy-acetylene welding and cutting, and shield metal arc welding. Fee is required. (5 contact hours)

### **WLD-112 Basic Arc/Gas Welding II (3)**

Increase knowledge and gain intermediate skill in the operation of oxy-fuel welding and cutting, and shield metal arc welding. Fee is required. (5 contact hours)

Corequisite: Registration or credit in WLD-111

### **WLD-113 Basic Metallurgy and Materials (3)**

Introduces types and use of industrial materials. The general classifications, properties, and industrial applications of materials are studied. Fee is required. (4 contact hours)

### **WLD-121 Advanced SMAW & Cutting I (3)**

Gain instruction in shield metal arc welding in the flat, vertical and overhead position to meet industrial requirements for speed and quality. Fee is required. (5 contact hours)

Prerequisite: WLD-112

### **WLD-122 Advanced SMAW and Cutting II (3)**

Examine advanced techniques in out-of-position shield metal arc welding. Welding of transitional joints is stressed. Fee is required. (5 contact hours)

Prerequisite: WLD-112 Corequisite: Registration or credit in WLD-121

### **WLD-123 MIG, TIG, & Brazing I (3)**

Study soldering, brazing, braze welding, gas metal arc welding of aluminum and carbon steels, gas tungsten arc welding of aluminum, carbon and stainless steels, and flux cored arc welding of carbon steels. Fee is required. (5 contact hours)

Prerequisite: WLD-112

### **WLD-124 MIG, TIG, and Brazing II (3)**

Concentrates on brazing and braze welding. Practice gas metal arc welding in all positions on aluminum, stainless and mild steels. Includes instruction in gas tungsten arc welding on aluminum, stainless and mild steels in all positions. Theory and practice in gas metal arc welding, flux cored arc welding, gas tungsten arc welding, and oxy-fuel braze welding are covered. Fee is required. (5 contact hours)

Prerequisite: WLD-112 Corequisite: Registration or credit in WLD-123 or consent of instructor

**WLD-137 Individual Welding Problems I (2)**

The student prepares a written proposal identifying problems to be addressed and submits it to the instructor. Upon approval, the instructor informs the student of a class meeting time. The student must meet with the instructor prior to registering for the class. Preselected problems are available from the instructor. Fee is required. (4 contact hours)

Prerequisite: Consent of instructor

**WLD-138 Individual Welding Problems II (2)**

The student prepares a written proposal identifying problems to be addressed and submits it to the instructor. Upon approval, the instructor informs the student of a class meeting time. The student must meet with the instructor prior to registering for class. Preselected problems are available from the instructor. Fee is required. (4 contact hours)

Prerequisite: Consent of instructor Corequisite: WLD-137

**WLD-140 Basic Pipe Welding I (3)**

Welding of six-inch schedule 40 and 80 carbon steel pipe in a fixed position, using the shielded metal arc process to American Society of Mechanical Engineers (ASME) code, is covered. Fee is required. (5 contact hours)

Prerequisite: WLD-122 Corequisite: WLD-141

**WLD-141 Basic Pipe Welding II (3)**

This continuation of basic pipe welding allows students to perfect skills learned in WLD-140. Emphasis is on American Society of Mechanical Engineers (ASME) code requirements for 6G welding of heavy wall carbon steel pipe with an open single Vee butt joint. Fee is required. (5 contact hours)

Prerequisite: WLD-122 Corequisite: WLD-140 or consent of instructor

**WLD-150 Basic Ornamental Welding (2)**

This course is an introduction to the basic metal joining techniques. Areas to be covered include shop safety and proper procedures for setting up and using oxy-acetylene torch, electric welders and metal finishing tools. There will be an explanation of basic metallurgy and the relevance to joining dissimilar metals. Students will learn how to use welding and forging techniques to make metal sculpture, ornamental ironwork and decorative hand-built metal pieces. Fee is required. (3 contact hours)

**WLD-160 Visual Inspection of Welds (2)**

The most common non-destructive testing method is visual inspection. The student will visually inspect welds and identify weld size, acceptable weld profiles and surface weld discontinuity. The student will check welds for conformance and non-conformance with codes. (2 contact hours)

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GIS Specialist, Certificate.....	80	Mechanical and Fluid Power Maintenance, Certificate .....	103
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HAC—Heating and Air Conditioning .....	163	Medical Assistant .....	106
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Office Systems and Applications, A.A.S.....	110	Shielded Metal Arc Welding, Certificate .....	130
OSA—Office Systems & Applications .....	206	Sign Language Interpretation .....	122
Paraprofessional Educator, A.A.S .....	72	Sign Language Interpretation, Certificate .....	122
Paraprofessional Educator, Certificate .....	73	Sleep Technology.....	123
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Patient Care Technician, Certificate .....	115	SLP—Security and Loss Prevention.....	228
PEH—Physical Education & Health .....	209	Small Business Management.....	125
PHB—Phlebotomy .....	213	Small Business Management, A.A.S.....	125
PHI—Philosophy .....	214	Small Database Administrator, Certificate .....	98
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PHP Programmer, Certificate.....	97	Software Developer, Certificate .....	98
PHS—Physical Science .....	215	SPA—Spanish.....	229
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Radiologic Technology, A.A.S.....	116	Therapeutic Massage .....	127
RAD—Radiologic Technology .....	219	Therapeutic Massage, Certificate .....	127
RDG—Reading .....	222	THE—Theater .....	231
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REC—Recreation Management.....	223	Travel Business Management .....	128
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Respiratory Therapy .....	119	Travel-Tourism, Certificate .....	128
Respiratory Therapy, A.A.S.....	119	Tuition and Fees.....	11
RES—Respiratory Therapy Technology .....	223	Use of Cellular Phones and Other Devices .....	36
Restaurant/Hotel Management .....	121	Veterans Benefit Program .....	13
Restaurant/Hotel Management, A.A.S. ....	121	Visual Basic.NET Programmer, Certificate.....	100
Restaurant/Hotel Management, Certificate .....	122	Website Designer, Certificate .....	101
Retail Management, Certificate .....	102	Website Developer, Certificate .....	100
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RTM—Restaurant/Hotel Management & Culinary Arts ..	225	Welding, Advanced, Certificate .....	128
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<b>Career Programs</b>	<b>Certificate</b>	<b>Associate in Applied Science (A.A.S.) Degree</b>	<b>Credit Hours</b>
<b>Art</b>			
Digital Art/Design (1428)		■	64
Digital Design (1429)	■		24
<b>Business</b>			
Baking and Pastry (1359)		■	65
Baking/Pastry Arts (1323)	■		37
Business Administration Associate (1202)		■	60
Accounting Assistant/Clerk (1328)	■		29
Business Skills (1423)	■		19
Culinary Arts Management (1324)		■	64
Human Resources Management (1412)		■	62
Employee Training and Development (1413)	■		30
Marketing and Management (1238)		■	63
Retail Management (1415)	■		25
Restaurant/Hotel Management (1256)		■	62
Beverage Management (1414)	■		19
Culinary Arts Management (1322)	■		39
Restaurant/Hotel Management (1254)	■		36
<b>Computer Integrated Technologies</b>			
Cloud Networking and Virtualization (1435)		■	60
Cisco Network Associate (1447)	■		23
Microsoft Associate (1446)	■		24
Computer and Local Area Network Technician (1416)		■	63
Computer Support Associate (1348)	■		7
Computer Technician (1418)	■		14
LAN Technician (1419)	■		24
Network Administrator (1422)	■		30
Computer Graphics Imagery (1374)		■	62
Computer Graphics Associate (1375)	■		6
Computer Graphics Professional (1377)	■		9
Computer Graphics Designer (1376)	■		11
Computer Graphics Master (1378)	■		26
Electronic/Computer Controls Tech (1281)		■	60
Electronic Controls Technician (1417)	■		42
Electronics Technician (1282)	■		18
Geographic Information Systems (1371)		■	62
GIS Technician (1373)	■		10
GIS Specialist (1372)	■		12
GIS Professional (1379)	■		25
Integrated Systems Technology (1403)		■	60
Fluid Power Technician (1367)	■		8
Industrial Controls Technician (1364)	■		9
Industrial Maintenance Technician (1368)	■		23
Manufacturing Intern (1404)	■		15
Mechanical Drive Technician (1366)	■		8
Plant Engineering Mechanic (1405)	■		32
PLC Technician (1365)	■		18

<b>Career Programs</b>	<b>Certificate</b>	<b>Associate in Applied Science (A.A.S.) Degree</b>	<b>Credit Hours</b>
IT Security Specialist (1420)		■	63
Network Security Associate (1360)	■		21
Network Security Specialist (1424)	■		36
Mechanical and Fluid Power Maintenance (1275)	■		40
Mechanical Design Technology (1221)		■	63
Architectural CAD (1436)	■		23
AutoCAD Specialist (1363)	■		12
Autodesk Inventor Specialist (1339)	■		8
Mechanical Drafting Associate (1220)	■		17
Mechatronics Technology (1338)		■	64
<b>Corporate, Community and Continuing Education</b>			
Supply Chain Management (1319)	■		17
<b>Education</b>			
Early Childhood Educator (1264)		■	61
Before and After School Care (1474)	■		27
Early Childhood Educator Level 2 (1475)	■		18
Early Childhood Educator Level 3 (1476)	■		27
Infant/Toddler Level 2 (1472)	■		21
Infant/Toddler Level 3 (1473)	■		33
Paraprofessional Educator (1470)		■	62
<b>Health Sciences</b>			
Computed Tomography (1340)			19
Emergency Medical Services (1332)		■	62
Emergency Medical Services (1320)	■		35
Health Information Technology (1244)		■	72
Coding Specialist (1431)	■		41
Medical Billing (1440)	■		15
Mammography Technology (1346)	■		9
Medical Assistant (1455)	■		50
Nursing (1246)		■	72
Patient Care Technician (1506)	■		21
Phlebotomy (1306)	■		13
Radiologic Technology (1240)		■	72
Respiratory Therapy (1241)		■	72
Sleep Technology (1370)		■	63
Therapeutic Massage (1249)	■		39
<b>Information Management Systems</b>			
Management Information Systems (1206)		■	64
Android Developer (1347)	■		18
Android Programmer (1384)	■		9
Associate Database Administrator (1345)	■		18
C# Programmer (1466)	■		21
Database Administration Skills (1381)	■		12
iOS Developer (1343)	■		18
iOS Programmer (1383)	■		9

<b>Career Programs</b>	<b>Certificate</b>	<b>Associate in Applied Science (A.A.S.) Degree</b>	<b>Credit Hours</b>
Java Programmer (1458)	■		21
Mobile Application Developer (1385)	■		27
Multimedia Designer (1342)	■		24
PHP Programmer (1344)	■		18
Programming Skills (1382)	■		9
Small Database Administrator (1380)	■		6
Software Developer (1305)	■		36
Visual Basic.NET Programmer (1457)	■		21
Website Designer (1434)	■		33
Website Developer (1433)	■		36
Office Systems and Applications (1257)		■	64
Administrative Assistant (1315)	■		35
Data Entry (1317)	■		7
Graphics and Desktop Publishing (1312)	■		15
Help Desk Specialist (1311)	■		33
Legal Office Assistant (1316)	■		40
Medical Secretary (1318)	■		33
Microsoft Office Specialist (1456)	■		22
Receptionist/Office Assistant (1214)	■		19
<b>Mechanical Technologies</b>			
Automotive Technology (1277)		■	62
Automotive Climate Control Tech (1462)	■		12
Automotive Service Advisor (1477)	■		12
Automotive Service Technician (1237)	■		48
Brake and Chassis Technician (1461)	■		12
Drivetrain Technician (1464)	■		16
Engine Driveability Technician (1463)	■		24
Heating and Air Conditioning (1215)	■		33
Advanced Air Conditioning Tech (1454)	■		16
Basic Air Conditioning Tech (1453)	■		19
Commercial Systems Services Tech (1337)	■		13
Electrical Troubleshooting (1452)	■		15
Stationary Engineer (1329)		■	62
HAC Stationary Engineer (1326)	■		43
Welding, Advanced (1229)	■		33
Individualized Welding (1530)	■		8
Multi-Process Welding (1532)	■		9
Pipe Welding (1531)	■		18
Shielded Metal Arc Welding (1529)	■		9
Welding, Combination (1230)	■		26
<b>Public Service</b>			
Addictions Studies (1314)		■	63
Addictions Studies (1321)	■		44
Criminal Justice (1260)		■	62
Emergency Management (1386)	■		16
Fire Service Management (1262)		■	62

<b>Career Programs</b>	<b>Certificate</b>	<b>Associate in Applied Science (A.A.S.) Degree</b>	<b>Credit Hours</b>
Fire Service Operations (1331)		■	62
Fitness Trainer (1279)	■		30
Homeland Security (1361)	■		17
Recreation Therapy (1259)		■	63
Security and Loss Prevention (1307)	■		11
Sport and Recreation Management (1261)		■	64
<b>Sign Language</b>			
Sign Language Interpretation (1369)	■		54



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